Written Exam at the Department of Economics summer 2017

International Economics

Final Exam – **brief sketch of suggestive answers**

June 15, 2017

(3-hour closed book exam)

Please note that the language used in your exam paper must correspond to the language for which you registered during exam registration.

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

NB: If you fall ill during the actual examination at Peter Bangsvej, you must contact an invigilator in order to be registered as having fallen ill. Then you submit a blank exam paper and leave the examination. When you arrive home, you must contact your GP and submit a medical report to the Faculty of Social Sciences no later than seven (7) days from the date of the exam.

PROBLEM 1– brief sketch of suggestive answers – this sketch should not be considered a good answer to the exam. The aim of the sketch is to point in the direction of good answers.

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

1.1.

Within the Ricardian trade model, an absolute advantage in the production of a given good is neither necessary nor sufficient for a country to have a comparative advantage in producing the same good.

This is clearly true and can for instance be seen from the inequality in Feenstra ch. one giving the home country a comparative advantage in good one (a1/a2 is smaller than its counterpart abroad).

1.2.

To obtain a theoretical model explaining "intra-industry trade" it is crucial to resort to assumptions of monopolistic competition, love of variety, and increasing returns.

This is, in fact, not true. While these assumptions are key elements in the important monopolistic competition model (Krugman, 1979; Feenstra ch. 5), these assumptions are not necessary for intra-industry trade to occur. This is so because the reciprocal dumping model (Brander, 1981; Brander and Krugman, 1983; Feenstra ch. 8) also features intra-industry trade even though you see homogeneous goods and Cournot competition in those reciprocal dumping models. If you wrote something clever about the monopolistic competition model, you will nevertheless have received some good points here.

1.3.

The monopolistic competition model with the addition of CES utility has implications that fit the empirical evidence on the Canada-U.S. Free Trade Agreement rather well.

This is discussed on pp. 123-125 in Feenstra, and a good answer here could be something like "it depends on how you look at it". The scale effect has not been borne out empirically according to Feenstra and the cited studies. Some

evidence in favour of the selection effect is found, especially when one allows for differences in productivity across firms. This is, however, not part of the original Krugman model, and this ought to be mentioned.

1.4.

When two countries engage in international trade, the larger market will produce a larger number of products and be a net importer of the differentiated good.

This is not entirely correct, cf. the discussion of the home market effect on page 146 in Feenstra. Whereas the larger market will in fact produce a larger number of products, the larger country/market will be a net exporter of the differentiated good. Here, it is also nice to discuss the Armington case with a fixed number of firms (giving rise to net imports of the differentiated goods) and relate this case to the home market effect.

1.5.

The gains always exceed the losses when a country goes from autarky to free trade.

It depends. The word always is probably too strong. This is one topic of chapter seven in Feenstra and the answer is "yes correct" conditional on the presence of lump sum transfers. These transfers are unfortunately unrealistic. One should also discuss the commodity and factor taxes/subsidies introduced by Dixit and Norman (1980) which allow for Pareto gains from trade. Some assumptions are nevertheless still needed for this nice result to occur and these assumptions should be briefly discussed. Alternatively, one could mention the gains from trade in specific models of international trade.

1.6.

The most favored nation (MFN) principle states that all countries should be treated equally with respect to tariffs.

Almost correct. The most favored nation (MFN) principle states that all countries belonging to the GATT/WTO should be treated equally with respect to tariffs.

1.7.

The European Economic Community (EEC) is one example of a free trade area.

This is incorrect. The EEC is a customs union. It is natural to discuss the differences between these two agreements.

1.8.

As the optimal percentage tariff equals the inverse of the elasticity of foreign export supply, the optimal tariff under perfect competition is zero. The optimal tariff under imperfect competition is also zero.

This is not entirely correct. First, the optimal import tariff under perfect competition is zero for a small country but positive for a large country. Second, under imperfect competition, one also sees a rationale for positive tariffs when the home country imports from a foreign monopolist under certain conditions described on page 226 in Feenstra. It is also very likely that positive tariffs are optimal under Cournot duopoly. Under Betrand duopoly, the sign of the optimal tariff depends on the behavior of the elasticity of demand, as described in Feenstra.

PROBLEM 2– brief sketch of suggestive answers

This problem deals with the Feenstra and Hanson (1996,1997) model of trade in intermediate inputs, i.e., the offshoring model presented in class and presented in chapter four of Feenstra's textbook *"Advanced International Trade: Theory and Evidence"*.

2.1.
List and discuss the assumptions of the model and discuss the type of trade the model aims to explain.

- ***One industry – a continuum of activities with an increasing order of high/low-skilled labour as inputs– two countries – productions functions are the same across countries except for the Hicks-neutral productivity parameter – and so on, and so on. The model is presented in Feenstra ch. four. So, see the text book. The model deals with trade in intermediate goods (or offshoring; please define these types of trade) which has become increasingly important over the last four decades because***

both transportation and coordination costs have decreased, big time.

2.2.
Illustrate and explain the main results derived in the model.

- ***See the nice exposition in Feenstra ch. four.***

2.3.
Discuss the empirical evidence for the model.

- ***This is discussed in Feenstra chapter four. The model "gives an explanation for the increase in the relative demand (and wage, my addition) for skilled labor that was observed across countries during the 1980s". However, the model does not at all prove that offshoring was the main explanation. However, the model is consistent with some of empirical evidence from e.g. the U.S. and Mexico.***