

## Guide to Grading of Exam «International Economics» SFB 11615 (10 ECTS)

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### Exercise 1

This exercise centers around the concepts of *comparative advantage*, *absolute advantage*, *production possibilities frontier*, and the role of comparative advantage in determining the patterns of production and trade.

**a)** this requires a graph following the given specifications and a detailed explanation of the meaning of the graph – one for each of the countries.

**b)** tests for an understanding of the concept of *absolute advantage* as well as the computations to determine which country has an absolute advantage in producing each of the two goods. The relevant result is that the country Portugal has an absolute advantage in producing both wine and cloth.

**c)** tests for an understanding of the concept of comparative advantage as well as the computation of which country has a comparative advantage in the production of which good. The results are that England (Foreign Country) has a comparative advantage in producing cloth and Portugal (Home country) has a comparative advantage in producing wine.

**d)** Here it is expected that students know that countries export the good in whose production they have a comparative advantage, and import the other good.

(i) This means that Portugal (Home country) exports wine and imports cloth.

(ii) England (Foreign Country) exports cloth and imports wine.

(iii) To show that it is advantageous for Portugal to engage in export and imports the student is expected to explain that at the given world prices Portugal, which has a comparative advantage in producing wine, can give up one unit of wine (export) and in return receive one unit of cloth (import).

Without trade, when Portugal has to produce itself all it consumes of both goods, the internal trading ratio is less advantageous. By giving up one unit of wine Portugal can only obtain  $\frac{8}{9}$  of a unit of cloth, i.e. less than a full unit of cloth.

(iv) Analogously to (iii) here it needs to be shown that England, which has a comparative advantage in producing cloth, can export one unit of cloth and in return receive (import) one full unit of wine.

Without trade England, when giving up one unit of cloth, can only obtain  $\frac{5}{6}$  of a unit of wine, i.e. less than a full unit of wine.

(v) The gains from trade are to be demonstrated in the following way:

This is just a re-phrasing in a focused summarizing way of the the results from (iii) and (iv).

## Exercise 2

Here what is required is a precise interpretation of what the graph tells us, This requires that students can identify and explain all relevant lines, curves and points, and intervals.

One of the relevant observations is that before trade opens up the country consumes exactly the product mix that it produces. But after trade opens up the country can consume a different product mix than what it produces via exports and imports.

There are several ways to show the gains from trade. The more different ways of showing this is done by the student, the more valuable is the answer.

Method 1: By inspection it is clear that the after Trade consumption point lies outside of and beyond the country's production possibilities frontier for each country. So more is being consumed than what the country could have produced on its own.

Method 2: After Trade the consumption point is on a higher indifference curve for both countries.

Method 3: Show that the external (Import-Export) trading ratio is superior to the 'internal trading ratio' of changing the relative quantities of production of the two goods (for each country)

Method 4: Show that total world production is increased when countries trade with each other. World production of cloth stays the same, at 120 units of cloth, after trade as before trade. But world production of wheat increases from 80 units to 95 units of wheat.

## Exercise 3

**a)** Here it is enough that the student explains that as the relative price of beans increases this gives an incentive to the bean producing country B to produce more beans (upward sloping supply curve).

It is also desirable that the student comments on the terms of trade improvement for the bean producing and exporting country B.

**b)** Here it is enough to explain that income and substitution effect of the price increase work in opposite direction, but since it is given that the income effect dominates the substitution effect the net effect is an increase in consumption of beans in the bean producing country B.

*(If, in addition, students use diagrams with production possibilities frontiers and tangent lines, that gives extra points, and would compensate for a weaker performance on some other exercise)*

4)

**a)** Here a definition/explanation of the concept of 'Internal Economies of Scale' is required. This should show awareness that internal economies of scale leads to market structures of imperfect competition.

**b)** Here it should be explained that although internal economies of scale favor one large production site, and therefore speaks for concentrating production in one site, there are other factors to consider:

Locating near where customers are to save on transportation cost.

Locating near where customers are to get to know them better and improve targeted marketing.

**c)** This requires a definition/explanation of external economies of scale that should include the realization that external economies of scale do not necessarily lead to a market structure of imperfect competition.

Examples of industrial agglomerations are desirable.

**d)** Here it should be explained that both types of economies of scale offer an explanation for why specialization and trade occur between countries. These economies of scale are drivers of international trade. So this offers an alternative explanation of and motives for international trade that is different from 'comparative advantage'.