english

Examination: International Trade (Prüf.-Nr.: 1432)   Summer Term 2004

Examiner: Dr. Ludwig v. Auer

The following aids may be used: Calculator,   dictionary

This examination comprises three questions. All of them are to be answered. The available amount of time is two hours.

Question 1:

Due to its geographical characteristics, the USA and Mali (Westafrica) are exporters of cotton, whereas Switzerland is an importer of cotton. In the following questions, for the listed three countries, a partial equilibrium analysis is conducted.

a) (*12 points*) Switzerland is a small country. Using a suitable diagram, explain the welfare effects that arise for Switzerland when this country introduces an import quota (not a tariff!). What are the consequences of the import quota for the domestic cotton price (P_Q), the world cotton price (P_W), and the quantity of swiss cotton imports?

b) (*14 points*) The USA are a large country and they pay export subsidies to their cotton producers. During the WTO trade talks the removal of these export subsidies was asked for. Using a suitable diagram, explain the welfare effects that arise for the USA when the export subsidies are removed. How large is the terms of trade effect? What are the consequences on the US-american domestic cotton price (P_S), the world cotton price (P_W), and the quantity of US-american cotton exports?

c) (*8 points*) Mali is an exporter of cotton. It does not pay any export subsidies to its cotton producers. Using a suitable diagram, explain the welfare effects that arise for Mali when the USA remove their export subsidies. What are the consequences on Mali's domestic cotton price and on the quantity of Mali's cotton exports?

d) (*6 points*) Aside from import quotas, import tariffs and export subsidies, three other possible intstruments of trade policy were briefly described in the course. Briefly explain these three instruments.

Question 2:

In the simple migration model two countries (*Home* and *Foreign*), two factors of production (*land* and *labour*) and one good are considered. Therefore, no trade in goods can occur. The quantity of land in *Home* is T and in *Foreign* it is T^*. The quantity of labour in *Home* and *Foreign* is indicated by L and L^*. Only labour is internationally mobile.

a) (*12 points*) *Home*'s production function, $Q(T, L)$, and *Foreign*'s production function, $Q^*(T^*, L^*)$, are identical. Suppose furthermore that $T = T^*$ and $L < L^*$. Using a suitable diagram, explain the effects of migration on L, L^* and on world total output.

b) (*14 points*) The case analysed in question 2a can be described by a numerical example. Suppose that the production function *of both countries* is: $Q(T, L) = L \cdot T - L^2$. Differentiate this function with respect to L. What interpretation does the result of this differentiation possess? Furthermore, the following information is given:

	T	L
Home	1000	200
Foreign	1000	300

please turn over!

Using a diagram (or using pure algebra) calculate how many workers (=labour units) leave their country and in which country they go. In addition, compute by how many units the combined output of *Home* and *Foreign* changes as a result of migration.

c) (*9 points*) Suppose that the information given in question 2b is still valid, the only difference being the production function of Home: $Q(T, L) = 0,5 \cdot L \cdot T$. Foreign's production function is still $Q^*(T^*, L^*) = L^* \cdot T^* - (L^*)^2$. Using a diagram (or using pure algebra) calculate how many workers leave their country. In addition, compute by how many units the combined output of *Home* and *Foreign* changes as a result of migration.

d) (*5 points*) Cultural differences and differences in language often imply that workers migrate to another country only when the wage in that country is sufficiently higher. Suppose that a wage difference of 25% (e.g., wage=125 as compared to wage=100) is necessary to induce a worker to migrate. How many workers would leave their country and what happens to total output, when the situation is as described in question 2c?

Question 3: Shorties

a) (*10 points*) Using a suitable numerical example, show *algebraically* that, even in the case that one country has an absolute advantage in all goods, in the simple Ricardian model free trade is beneficial for both countries. In your example, which country has which absolute and comparative advantages? Which world price ratio is used in your example?

b) (*8 points*) "When a large country increases an import tariff it necessarily reduces its welfare". Explain verbally why, in the context of partial equilibrium analysis, this statement is wrong. In a suitable diagram show the correct relationship between import tariff and welfare (horizontal axis: level of the import tariff). Add to your diagram the optimal tariff as well as the prohibitve tariff.

c) (*6 points*) Consider the specific factors model with two countries (*Home* and *Foreign*) and two goods (*financial servies* and *manufactures*). The mobile factor of production is *labour*. *Software* is the specific factor of production necessary to produce *financial services*, and *capital* is the specific factor necessary to produce *manufactures*. The only difference between the two countries is: *Foreign* has more capital than *Home*. The countries decide to start free trade. How are the owners of the three factors of production affected by this decision (no justification required)?

d) (*10 points*) Suppose that a government cares only about maximizing its votes in the next election. Suppose that its votes depend solely on two factors: a) cash put into election-campaign, b) degree to which the government policy serves the interest of "special groups". It is assumed that the cash for the election campaign is provided by the "special groups". Using the four quadrant diagram outlined in the course, show by which degree of special interest policy the government maximizes its votes.

e) (*6 points*) For various industries in France, individual measures were computed that indicate for the respective industry the relative importance of inter- and intraindustrial trade. The applied formula was:

$$K = \frac{|\text{export} - \text{import}|}{\text{export} + \text{import}}.$$

Which possible numerical values can K take? Which K-values (low, high) do you expect in France for cheese, cars, and cotton (very brief explanation)?