**Economics of European Integration**

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# Problem Set 3

References: BW (6.ed) The Economics of European Integration Ch. 4/5

**Exercise 1:**    The Basics of Trade Protection

We can assess the consequences of trade integration for both consumers and producers of two or more countries graphically via the famous import supply and import demand curves. This exercise will look at what happens when a nation (Home) reduces its tariff on imports from only **one** of its trading partners (Partner).

a. Imagine Home is a member country of the World Trade Organization (WTO) and applies the respective most favoured nation (MFN) tariffs to all of his Partners. What happens when Home negotiates a preferential agreement with one of its partners that reduces tariff $T$ to $T'$? Show the full welfare effects of this change in trade policy for Home, Partner and the "Rest of the World" (RoW).

b. How do the welfare effects differ compared to a situation where Home was a "small" country?

c. What other types of protection exist? How frequent/intensively are they used and why?

**Exercise 2:**    Trade Integration in the EU: The Case of a Customs Union (CU)

So far we have considered only unilateral tariff cuts. European integration, however, involves reciprocal, that is, two-way, preferential liberalization. In our case, that means Home and Partner both set their tariffs to zero on each other's exports.

a. Repeat the exercise from before, analyzing the welfare effects of a CU for Home, Partner and RoW.

b. What are the key differences between a Free Trade Agreement (FTA) and a Customs Union and why do countries decide for one or the other?

c. Does the formation of a CU give rise to trade creation and/or diversion effects? Why?

**Exercise 3**:

Consider the market for TVs in a small country. The national demand function is $p = 15 - 15q$, while the national supply function is $p = 1 + 20q$. $p$ is the price of a TV in thousands of Euro, and $q$ is the quantity of TVs in millions.

a.    (a) Represent graphically the supply and demand functions (curves S and D) in the plane $(q, p)$.

(b) What are the characteristics of autarky?

b. The country opens to trade. The price on the world market is 4.5.

(a) How much does the country demand and supply at this price? How much does it import? Write the exact quantities.

(b) Show it on a graph.

c. The government of the country sets an ad valorem tariff with a rate $t = 1/3$ on its imports.

(a) What is the domestic price?

(b) How much does the country demand, supply and import?

(c) Show it on a graph.

d.    (a) How much does the surplus of the agents in the economy (households, producers, government) vary when the country switches from free trade to protectionism?

(b) What is the variation in the welfare of the country? Explain.

(c) Find the level of the tariff which would be prohibitive on imports.

e. The government replaces the tariff by a quota equal to the amount of imports corresponding to the tariff with a rate $t = 1/3$.

(a) Explain the consequences of the introduction of this quota.

(b) What is different with regard to the previous situation?

f. How do the results change if we suppose that the country adopting the protectionism policy is a big country? (give the general idea)