EC3355 International Trade
Problem Set 6: Trade policy

Consider Vietnam which has the following supply and demand for rice:

$$Supply = 7P_r^f; Demand = 3000 - 3P_r^c$$

P_r^f is the price that the farmers receive and P_r^c is the price that the consumers pay. In the absence of any tariffs we assume $P_r^f = P_r^c$ and under free trade Vietnam can export rice at the world price of $P_r^w = 500$. Vietnam decides to impose a tariff of t per unit on rice exports.

1. Show how the domestic price, consumption, and production change as t increases.

2. Calculate how consumer surplus, producer surplus, and government tariff revenue changes as t increases. When t increases what happens to general welfare?

3. With trade and tariff, is the country worse off than in autarky?

4. Consider the case where there is an export quota of 1,000 units, but no tariffs, and compare this with a domestic equilibrium when $t = 100$.

5. Instead of an export tariff, the government decides to subsidise exports at a rate of s per unit of export. So not only does the exporter receive the world price, but also a subsidy of s from the government. How does this subsidy affect domestic price, consumer surplus, producer surplus, government expenditures on the subsidy, and overall welfare?

6. Does there exist an export quota that would have a similar effect as the export subsidy?

7. Could the country be worse off without trade or with an export subsidy?

8. Suppose that the government wants to the help the domestic rice consumers living in the urban areas. The government can implement either an export tariff or a consumption subsidy. Which would be the better policy? For the answer compare the welfare implication of a tariff and subsidy both of 100.

9. We know that a tariff will increase producer surplus and decrease consumer surplus in the importing country. Explain why one cannot separate producer and consumer surplus in the general equilibrium models of trade discussed in the course.

10. Is it correct to assume that consumer surplus is worth the same amount as producer surplus or government revenue?