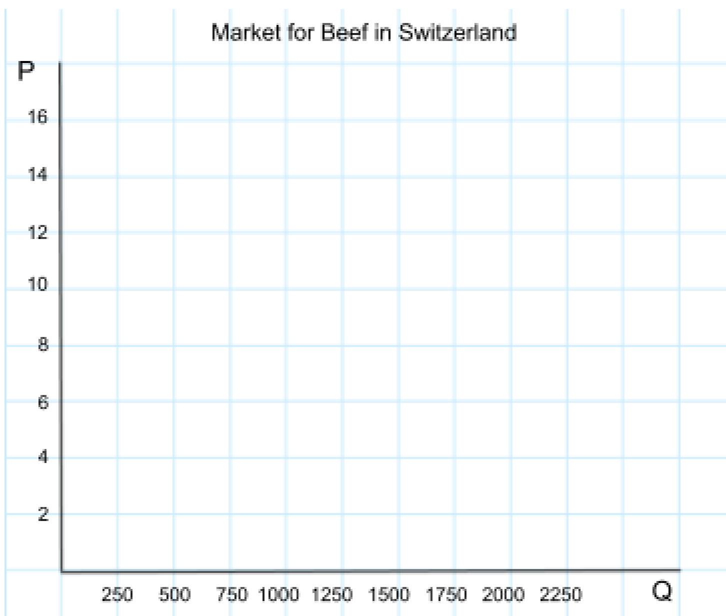
12.1 International trade and protectionism

Introduction: In this activity you will illustrate and explain the impact that three types of *trade barriers* would have on the domestic markets for a good in a particular country that is practicing *protectionism*.

Part 1 - Tariffs: A tariff is tax placed on an imported good for the purpose of protecting domestic producers of that good from lower-cost foreign producers, or for the purpose of raising government revenue.

1. Assume that Switzerland has a domestic market for beef that, without trade, would supply 1,000 kg of beef per week at a price of $10 per kilogram. In the graph below, show the domestic market for beef in Switzerland without trade.



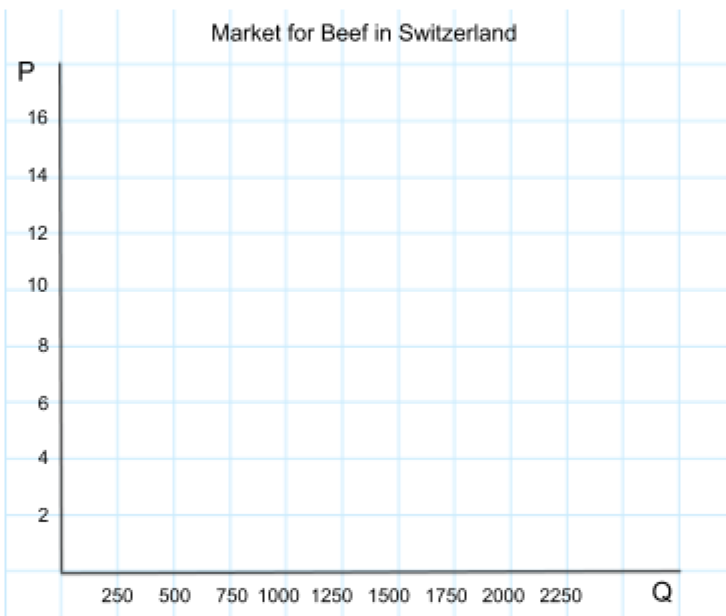
2. Assume that foreign beef producers are able to raise cows at a much lower cost, enabling them to sell their beef for just $4 per kg. Given that there are only 8 million people in Switzerland, it can import as much beef from the rest of the world as it wishes at the world price of $4.
    a. Add a line to your graph above representing the *world supply of beef and the world price of beef.*
    b. Indicate and describe on your graph the quantity that Swiss beef producers will produce at $4, the quantity that consumers will demand, and the quantity of beef that Switzerland will import assuming it opens its beef market to free trade (no values necessary)

c. Outline or shade the area that represents the *gains from trade* enjoyed by Switzerland. Who are the winners of free trade in the beef market? The losers? Explain.

Winners?

Losers?

3. Next, assume that the Swiss government decides to *protect* domestic beef producers, so imposes a $4 tariff per kilogram on foreign beef imports. Redraw your beef market diagram from above, this time with a $4 tax affecting the world supply.



4. Referring to your diagram, explain the impact of the $4 tariff on foreign beef on
   a. Domestic beef production in Switzerland

b. Domestic beef consumption in Switzerland

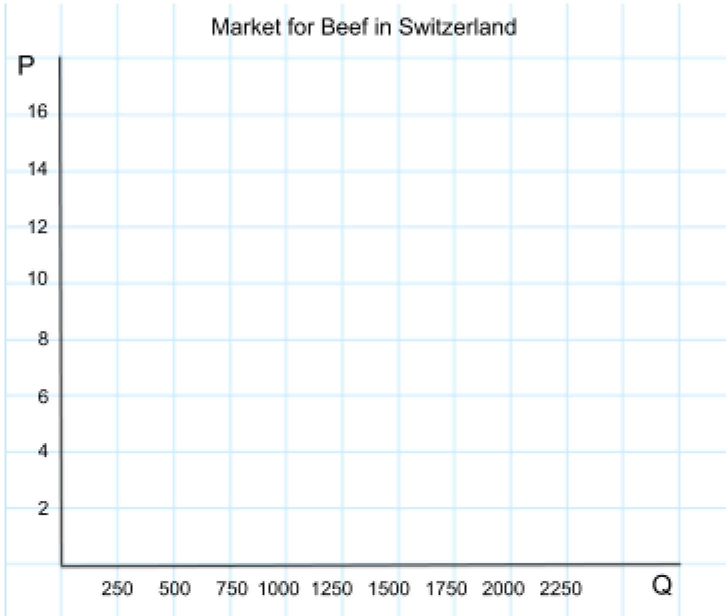
c. Foreign beef producers and beef imports

d. The Swiss government

e. Total welfare in the Swiss beef market.

Part 2 - Subsidies: A subsidy (defined as a payment from the government to producers meant to reduce costs and increase supply), can be employed for protectionist purposes. A subsidy to domestic producers can increase the domestic supply of a good at the expense of foreign producers and domestic taxpayers (who must pay for the subsidy with their taxes).

5. Redraw the market for beef in Switzerland with free trade from #1 above. Assume the Swiss government grants a $4 per kilogram subsidy to Swiss beef producers (remember, a subsidy shifts the supply curve down vertically by the amount of the subsidy).



6. Explain how the subsidy affects the following:
    a. The world price of beef

    b. The quantity demanded by Swiss consumers

    c. The amount of consumer surplus

    d. The quantity supplied by Swiss producers

e. The quantity of imports

f. The revenues of foreign beef producers from trade with Switzerland

g. Government expenditures on subsidies

7. Referring to your graph, identify
   a. the area that represents the total cost of the subsidy to the Swiss government.

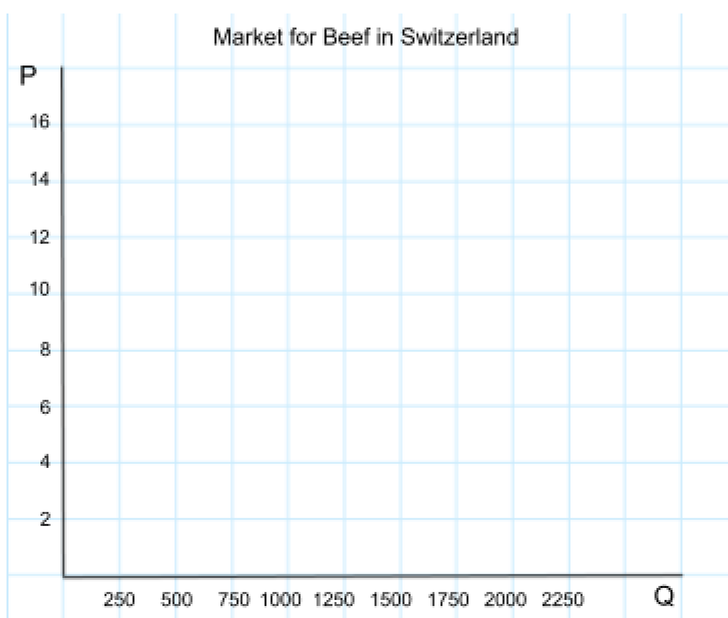
   b. The area that represents the net change in *consumer and producer surplus*.

   c. Which area is greater?

d. Why do protectionist subsidies lead to a net loss of total welfare (DWL)?

Part 3 - Quotas: A protectionist quota is a limit placed by the government on the quantity or volume of an imported good legally allowed to enter the country. When a quota is imposed in a market where free trade was previously taking place, a shortage is created, which drives the equilibrium price up, incentivizing domestic producers to increase their production. The result is a higher price for domestic consumers, a higher quantity supplied domestically, and a decrease in the quantity of imports. Unlike a tax, no revenue is raised for the government, and unlike a subsidy, a quota does not cost taxpayers any money.

8. Redraw the market for beef in Switzerland with free trade from #1 above. Assume the Swiss government imposes a quota on imported beef equal to *half* the amount of beef that would be imported under free trade.



a. Draw a dotted line from a point halfway between the distance representing imports under free trade, up to the world supply curve

b. Identify the area representing the shortage of beef that arises immediately following the imposition of the quota.

c. What impact will the shortage of beef have on it price in Switzerland?

d. From the top of your dotted line from part (a), resume the domestic supply curve, assuming the rising price of beef incentivizes Swiss beef producers to increase their output.

e. What will happen to the domestic quantity demanded for beef as its price rises?

f. Identify and describe from your graph the areas representing domestic producer revenues before the quota, then after the quota.

g. How does the quota affect total welfare in the Swiss beef market?