

Price	Quantity Supplied in US	Quantity Supplied in ROW	Quantity Demanded in US	Quantity Demanded in ROW	Quantity Supplied in whole world	Quantity Demanded in whole world		
\$1	1	2	21	14				
\$2	2	4	18	12				
\$3	3	6	15	10				
\$4	4	8	12	8				
\$5	5	10	9	6				
\$6	6	12	6	4				
\$7	7	14	3	2				

**Part I – Free trade**

You will need a piece of graph paper. You will also want to draw three graphs side by side. I recommend turning the piece of graph paper horizontally so you have more room (like printing landscape). You will be replicating the pictures I drew in lecture 20. I left a couple of blank columns in the table. You may or may not use them.

- In the first graph, draw the supply and demand curve for the US market (no international trade allowed). Label the autarky (no-trade) equilibrium price,  $P^{US}$ .
- What is the equilibrium price and quantity in the US under autarky?
- In the second graph, draw the supply and demand curve for the ROW (Rest of World) market (no international trade allowed). Label the autarky (no trade) equilibrium price,  $P^{ROW}$ .
- What is the equilibrium price and quantity in the ROW under autarky?
- Now, on the third graph, allow international trade. Draw the supply curve and demand curve for the “entire world” if free trade is allowed. (Hint: this is horizontal summation – pick a price and add the quantity supplied up – pick a price and add the quantity demanded up...)
- What is the equilibrium price and quantity in the “entire world” if free trade is allowed?
- Is the US importing or exporting the good? How many units?
- Is the ROW importing or exporting the good? How many units?
- For each group, indicate whether they are made better off or worse off by allowing international trade – US producers, US consumers, US as a whole, ROW producers, ROW consumers, ROW as a whole.

**Part II - tariff**

Let's change directions. Let's use the same info as above, but let's throw out some extra information that will just clutter things. So let's not worry about where world demand is coming from, just that it's there. So we'll keep the US supply curve (think domestic supply) and the ROW supply (think foreign supply) and the total demand curve. You'll be replicating the picture in lecture 21.

Price	Quantity Supplied in US	Quantity Supplied in ROW		Quantity Demanded in whole world			
\$1	1	2		35			
\$2	2	4		30			
\$3	3	6		25			
\$4	4	8		20			
\$5	5	10		15			
\$6	6	12		10			
\$7	7	14		5			

You'll need a piece of paper and you'll want to draw three graphs side by side. Again, you'll want to turn your paper horizontally so you have more room (like printing landscape). Again I've left some blank columns that you may or may not use.

1. Draw the supply curve for the US producers in the first graph.
2. Draw the supply curve for the ROW producer in the second graph.
3. Draw the supply curve for the "whole world" in the third graph.
4. Draw the demand curve for the "whole world" in the third graph.
5. What is the equilibrium price and quantity? (See #6 from part 1 – this should be the same)
6. How much of the good is produced by US producers?
7. How much of the good is produced by ROW producers?

Now for the hard part. Suppose a \$2 per unit tax is imposed on ROW producers. On the 2<sup>nd</sup> graph, shift up the ROW supply curve by \$2. Also, redraw the "whole world" supply curve on the third graph.

8. What is the new equilibrium price and quantity (this should be nice numbers, but not super nice).
9. At this price, how much of the good is being produced by US producers?
10. At this price, how much of the good is being produced by ROW producers?
11. Compare your answers to #6 and #9 – that is, what has happened to domestic production?
12. Compare your answers to #7 and #10 – that is, what has happened to foreign production?
13. Compare your answer to #5 and # 8 – that is, what has happened to the price of the good?
14. Has the price risen by the full amount of the tariff, \$2?
15. How much do foreign suppliers receive net of taxes? Compare this to your answer to #5. That is, what has happened to the net price that foreign suppliers receive?