International Trade: Key

Consider the following two economies. In Wilson, it takes 3 hours of labor to produce a helicopter and 1 hour of labor to produce a bottle of gin. In Namath, it takes 2 hours to produce a helicopter and two hours to produce a bottle of gin. Namath has 300 hours of labor while Wilson has 600 hours.

1. If Wilson specializes in the production of gin, it will produce 600 bottles. If it specializes in the production of helicopters, it will produce 200. The production possibilities frontier connects these two points.

2. If Namath specializes in the production of gin, it will produce 150 bottles. If it specializes in the production of helicopters, it will produce 150. The production possibilities frontier connects these two points.

3. No. Namath is more efficient at producing helicopters while Wilson is more efficient at producing gin. An absolute advantage would imply that one country is more efficient at producing both.

4. For Wilson, the opportunity cost of a bottle of gin is one-third of a helicopter, For Namath, the opportunity cost of a bottle of gin is one helicopter. Gin is relatively cheaper in Wilson and Wilson, by definition, has a comparative advantage in gin.

For Wilson, the the opportunity cost of a helicopter is three bottles of gin. For Namath, the opportunity cost of a helicopter is one bottle of gin. Namath thus has a comparative advantage in helicopter production.

5. To do this, we need to make assumptions about how each economy would behave in autarky. One possibility is:

Wilson: 50 helicopters, 450 bottles of gin
Namath: 75 helicopters, 75 bottles of gin

Suppose that Namath fully specializes by producing 150 helicopters. Wilson fully specializes by producing 600 bottles of gin. Wilson then exports 100 bottles of gin in exchange for 60 helicopters. The final distribution is:

Wilson: 60 helicopters, 500 bottles of gin

Figure 1: Equilibrium, Post-Trade

Namath: 90 helicopters, 100 bottles of gin

Both countries benefit by being able to consume outside their original production possibilities frontier. Note that there are many correct ways to design such a trade.
6. To do this, we need to make Namath more efficient at making gin. Keeping everything else unchanged, now assume that it only takes Namath 0.5 hours to produce a bottle of gin.

For Wilson, the opportunity cost of a bottle of gin is one-third of a helicopter, For Namath, the opportunity cost of a bottle of gin is one-fourth of a helicopter. Gin is relatively cheaper in Namath and Namath, by definition, has a comparative advantage in gin.

For Wilson, the the opportunity cost of a helicopter is three bottles of gin. For Namath, the opportunity cost of a helicopter is four bottles of gin. Wilson thus has a comparative advantage in helicopter production.

Under autarky assume:

Wilson: 50 helicopters, 450 bottles of gin
Namath: 75 helicopters, 300 bottles of gin

Note that these numbers are just for convenience. You may have chosen different numbers that are equally plausible.

Now let us have Namath completely specialize by producing 600 bottles of gin. Wilson does not fully specialize and instead produces 150 helicopters and 150 bottles of gin. Namath then exports 300 bottles of gin in exchange for 90 helicopters. This leaves:

Wilson: 60 helicopters, 450 bottles of gin
Namath: 90 helicopters, 300 bottles of gin

Once again, both countries are able to consume a bundle that was originally infeasible.

#7-8 were not covered in class and will not be a basis for exam questions.

7. The value of Namath's exports are \$60*10=\$600. The value of its imports are \$100*5=\$500. Namath of running a \$100 trade surplus.

8. Advanced economies usually have a comparative advantage in the production of these goods. They thus tend to export them in exchange for goods that require less skilled labor. Developing economies tend to have a comparative advantage in the production of these goods.

9. If these countries' trade results in a market failure, such as a negative externality that affects other countries, it might make economic sense to restrict this trade.