

Setup: France can produce 2 goods (airplanes and financial services) using labor (L) that is mobile between the 2 sectors. Capital machinery (K) is specific to producing airplanes. Executives with MBA's in finance (MBA) are specific to producing financial services.

1. Draw a bucket diagram
 - a. Show how French labor (L) is allocated between airplanes and financial services.
 - b. What conditions must be met for this to be an equilibrium?

2. Redraw the bucket diagram, and let the price of airplanes rise.
 - a. What happens to the labor demand curve in the airplane sector?
 - b. What happens to the allocation of labor and why?
 - c. What happens to the real and the nominal labor wage?
 - d. What happens to the return on airplane capital? (hint: there are two effects)
 - e. What happens to the return to an MBA degree?

3. Draw a PPF for France.
 - a. Explain why it is shaped this way, making a specific comparison to the PPF in the Ricardian model.
 - b. Pick an output ratio (airplanes/financial services) = 1. What is the slope of the French PPF at this output ratio equal to and why? (I want an equation here, not a number.)
 - c. Increase the output ratio (airplanes/financial services) to 2. How has the slope of the French PPF changed and why?

4. Use what you have learned from questions 2 and 3 to draw a relative supply (RS) curve showing how the relative output of airplane/financial services changes as the relative price of airplanes/financial services changes.

Consider a second country, Italy. Italy has the same size labor force, the same number of persons with MBAs, the same demand for and the same technology for producing airplanes and financial services as France. However, France has more airplane capital, $K^F > K^I$.

5. Recopy the French PPF from question 3.
 - a. On the same graph, draw the Italian PPF.
 - b. Pick an output ratio (airplanes/financial services) = 1. Compare the slopes of the Italian and French PPF's at this output ratio.

6. Recopy the French relative supply curve airplanes/financial services from question 4.
 - a. On the same graph, draw the Italian RS curve.
 - b. Combine this with a relative demand curve to show how relative prices of the two goods differ across the two countries in autarky.

7. Now that you know autarky prices (comparative advantage), we can analyze trade and its effects on each economy.
 - a. Describe the pattern of trade and changes in the pattern of output in each country.
 - b. Copy the RS curves from question 6 and show how each country moves along their RS curve as a result of trade. Show the point at which these countries stop specializing (hint: check the arbitrage conditions).
 - c. Compare autarky relative prices (airplanes/financial services) to free trade prices in each country.
 - d. How do these goods price changes affect the return to airplane capital and the returns to an MBA degree in France? In Italy?

8. Welfare gains.
 - a. Redraw the French PPF and show movement along the PPF as a result of the move from autarky to free trade.
 - b. Show the new consumption frontier.
 - c. Look at the French economy in the aggregate. Has it gained or lost from trade? Has Italy?
 - d. Is there anyone in France who might, on pure economic grounds, oppose the move to freer trade? In Italy?