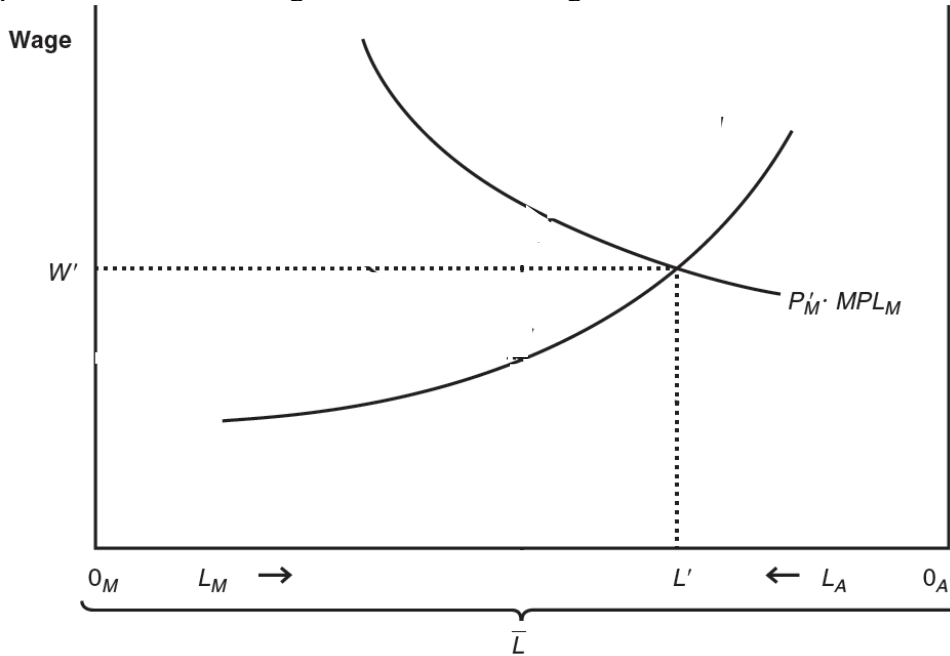


**Midterm Exam 1**

The total time for the exam is 60 minutes, although you are given 70 minutes to complete it. Points are allocated proportionally to the time allocations.

1. [20 minutes total] Heckscher-Ohlin.
  - a. (10 minutes) Draw the "Johnson Diagram", where aircraft production is labor intensive and food is land intensive, and Home is land abundant, *assuming that both countries are initially non-specialized*. Analyze the effect of an increase in the amount of labor in Foreign. Be sure to specify how "big" the increase in Foreign labor is.
  - b. (10 minutes) Using whichever diagram(s) is(are) most appropriate, assess which groups benefit in each country from the change indicated in part(a).

2. [20 minutes total] Starting from equilibrium in the specific-factors model, suppose the price of manufactured goods falls so that wages fall from  $W'$  to  $W$  in the figure.



- 2.1 (7 minutes) Show that the percentage fall in the wage is less than the percentage fall in the price of manufacturing, so that the real wage of labor in terms of manufactured goods goes up.
- 2.2 (7 minutes) What happens to the real wage of labor in terms of agriculture?
- 2.3 (6 minutes) Are workers better off, worse off, or is the outcome ambiguous?

3. [20 minutes total] The following shows the labor time necessary to produce one unit of the good in a Ricardian model of trade:

	<u>Computer</u>	<u>Automobile</u>
US	280 worker-days	200 worker-days
Japan	140 worker-days	160 worker-days

- (7 minutes) Which country has a comparative advantage in what good? If the US has 28,000 workers, draw and label the country's PPF. Show graphically the production and consumption point for the US under autarky (assume that you know the preferences of the country).
- (7 minutes) Suppose that trade opens up. Show graphically the US production and consumption points under trade (assume that you know the world prices of the goods).
- (6 minutes) Can the consumption of Computers be smaller with trade? Can the consumption of Automobiles be smaller with trade? In what sense is the country better off?