Development Economics

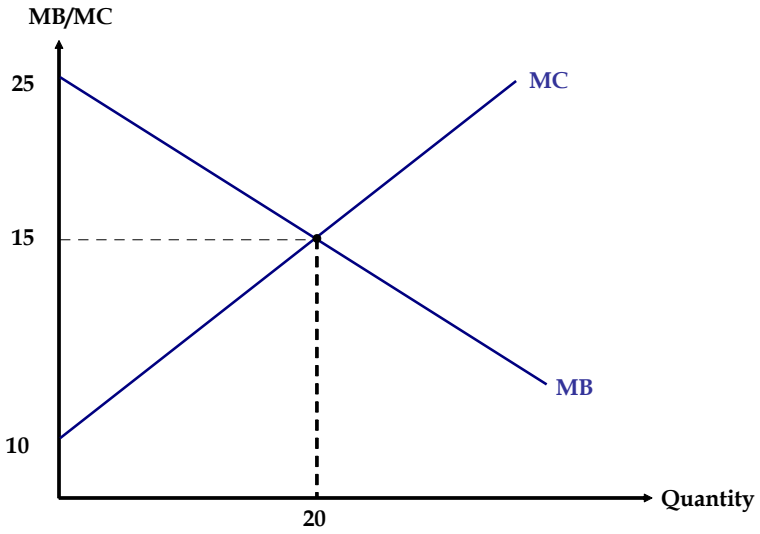
Problem Set 2

Sherif Khalifa

1. **(a) What are the main causes of the World food crisis?**

(b) Discuss the agrarian systems prevalent in the Developing world that contribute to such a crisis?

2. **Consider the following graph for a privately owned natural resource:**



(a) The consumer surplus =

(b) The producer surplus =

3. **Consider the following table, and assume the wage is $60:**

Worker	MPL	APL
1	100	100
2	90	95
3	80	90
4	70	85
5	60	80
6	50	75
7	40	70
8	30	65
9	20	60
10	10	55

If the resource is privately owned:

(a) The employment level =

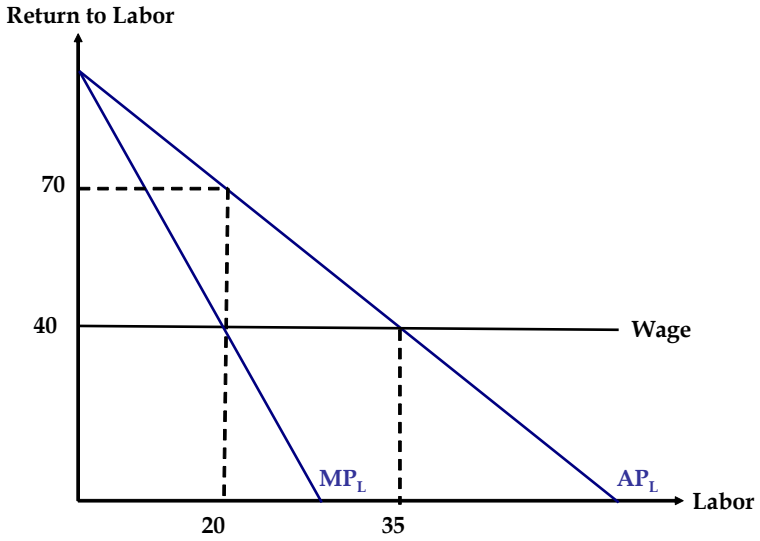
(b) The surplus =

If the resource is publicly owned:

(c) The employment level =

(d) The surplus =

4. Consider the following graph for the return to labor cultivating agricultural land.



If the resource is privately owned:

(a) The employment level =

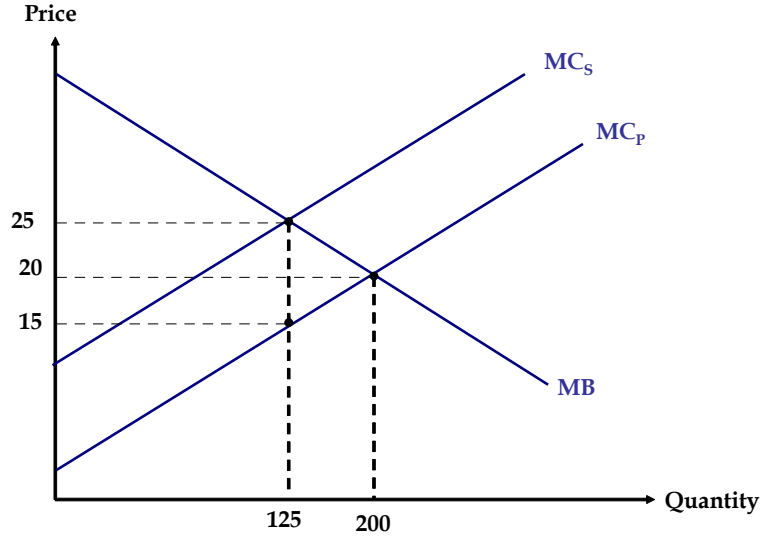
(b) The surplus =

If the resource is publicly owned:

(c) The employment level =

(d) The surplus =

5. **Consider the following graph on the difference between private costs and social costs due to the pollution caused by the production of a certain good:**



(a) The percentage of the pollution tax paid by consumers =

(b) The percentage of the pollution tax paid by producers =

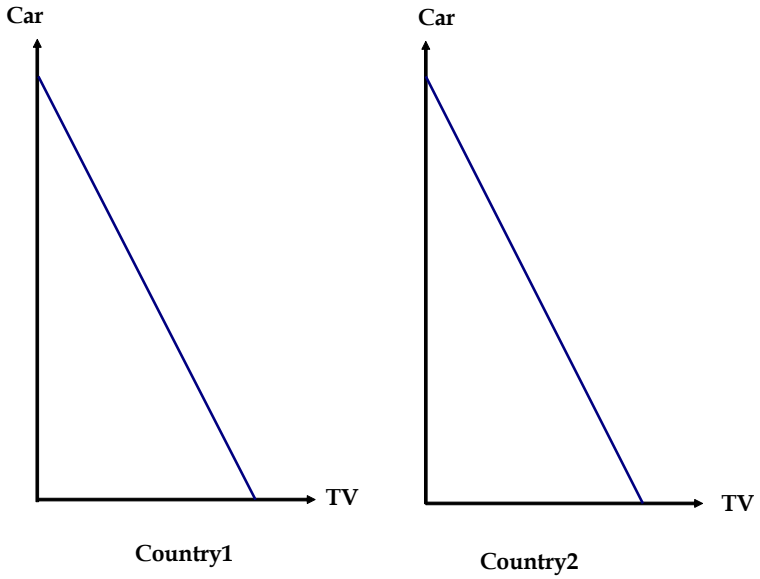
6. **Consider the following table about the technology of producing cars and TVs, where labor is the only factor of production:**

	1 Car	1 TV
Country 1	20 labor	5 labor
Country 2	50 labor	25 labor

(a) Country 1 has a comparative advantage in :

(b) Country 2 has a comparative advantage in :

(c) Assume that each country has 1000 workers, draw the production possibility frontier of each country?

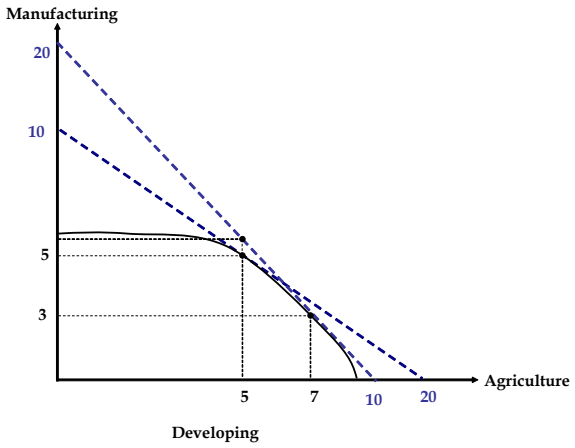


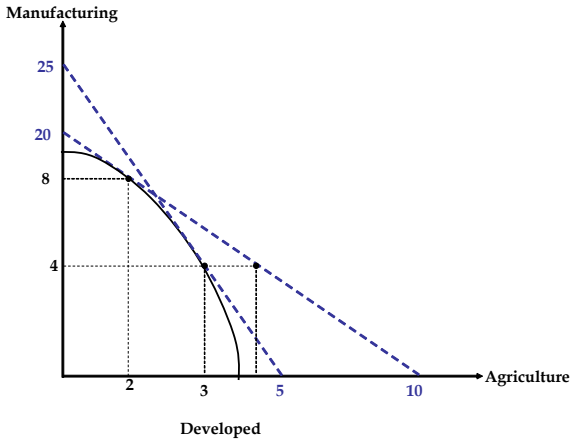
(d) The trade price:

(e) Assume that the autarky production is when both countries devote half of their labor to produce each good. Now, suppose that country 1 devotes 40% of their labor to produce cars and 60% to produce TVs, while country 2 devotes 75% of their labor to produce cars and 25% to produce TVs, and then they decide to trade such that the number of cars available for consumption in both countries after trade is the same as in autarky. Complete the following table:

	Country 1		**Country 2**	
	Cars	**TVs**	**Cars**	**TVs**
Autarky				
Production & Consumption				
Trade				
Production				
Trade				
Consumption				
Gains from Trade				

7. **Consider the following production possibility frontiers of two countries:**





(a) The autarky price in the Developing country =

(b) The autarky price in the Developed country =

(c) The trade price between the two countries =

(d) The combination of production in autarky in the Developing country =

(e) The combination of production in autarky in the Developed country =

(f) The combination of consumption in autarky in the Developing country =

(g) The combination of consumption in autarky in the Developed country =

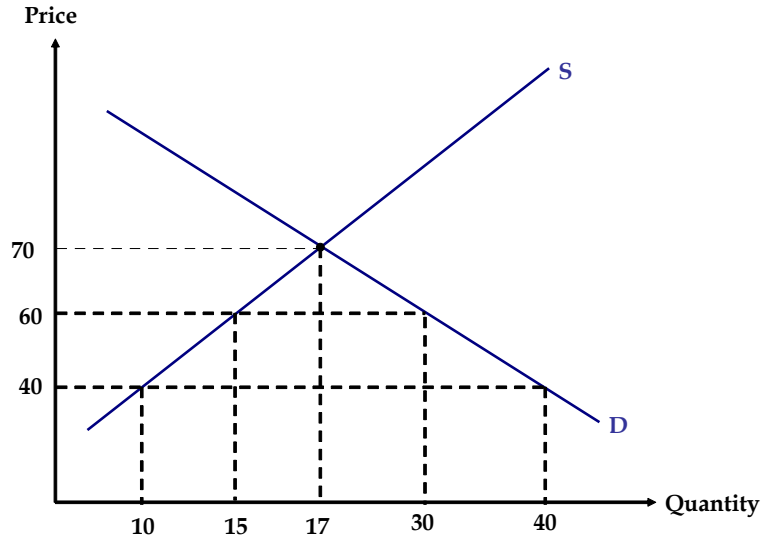
(h) The combination of production in trade in the Developing country =

(i) The combination of production in trade in the Developed country =

(j) The combination of consumption in trade in the Developing country =

(k) The combination of consumption in trade in the Developed country =

8. **Consider the following graph of the market for cars.**



In the case of autarky:

(a) The quantity of domestic car production =

(b) The price of domestic cars =

In the case of free trade:

(c) The quantity of imported cars =

(d) The price of cars =

If the country imposes a tariff on imported cars:

(e) The quantity of imported cars =

(f) The tariff imposed on every imported car =

(g) The import revenues collected by the government =

9. **To produce a boat, you need wood as an intermediate good. If this country imports both boats and wood, a 10% tariff rate can be imposed on boat imports, and a 5% tariff rate can be imposed on wood imports. The price of a boat is $1000 before the tariff, and the price of one unit of wood is $100. Knowing that three units of wood are required to produce one boat.**

(a) The value added before both tariffs are imposed =

(b) The value added after both tariffs are imposed =

(c) The value added after imposing a tariff on boats only =

(d) The value added after imposing the tariff on wood only =

(e) The effective rate of protection after imposing both tariffs =

(f) The effective rate of protection if only the tariff on boats is imposed =

(g) The effective rate of protection if only the tariff on wood is imposed =

10. **Consider the following balance of payments of a country:**

Item	Amount
Exports	**35**
Imports	**65**
Investment income	**2**
Debt service payments	**20**
Net remittances	**5**
Foreign direct investment	**7**
Foreign portfolio investment	**8**
Resident capital outflow	**30**

(a) The balance in the current account =

(b) The balance in the capital account =

11. **If the exchange rate between the Mexican Peso and the U.S.$ is 3 Pesos=1$. If this rate changed to 2 Pesos=1$.**

(a) Are the Mexican exports cheaper or more expensive due to this change?

(b) What can the Mexican policy makers do to return to the initial exchange rate?

(c) Are the American exports cheaper or more expensive due to this change?

(d) What can the American policy makers do to return to the initial exchange rate?

If the exchange rate between the Mexican Peso and the U.S.$ is 3 Pesos=1$. If this rate changed to 4 Pesos=1$.

(e) Are the Mexican exports cheaper or more expensive due to this change?

(f) What can the Mexican policy makers do to return to the initial exchange rate?

(g) Are the American exports cheaper or more expensive due to this change?

(h) What can the American policy makers do to return to the initial exchange rate?