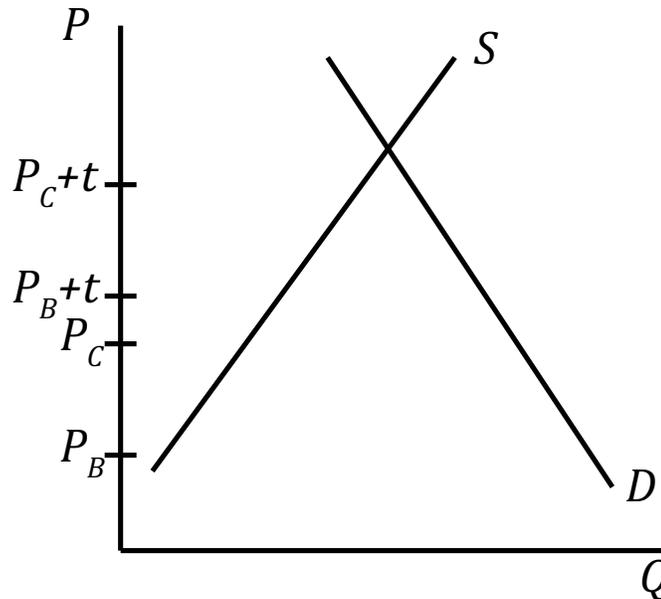


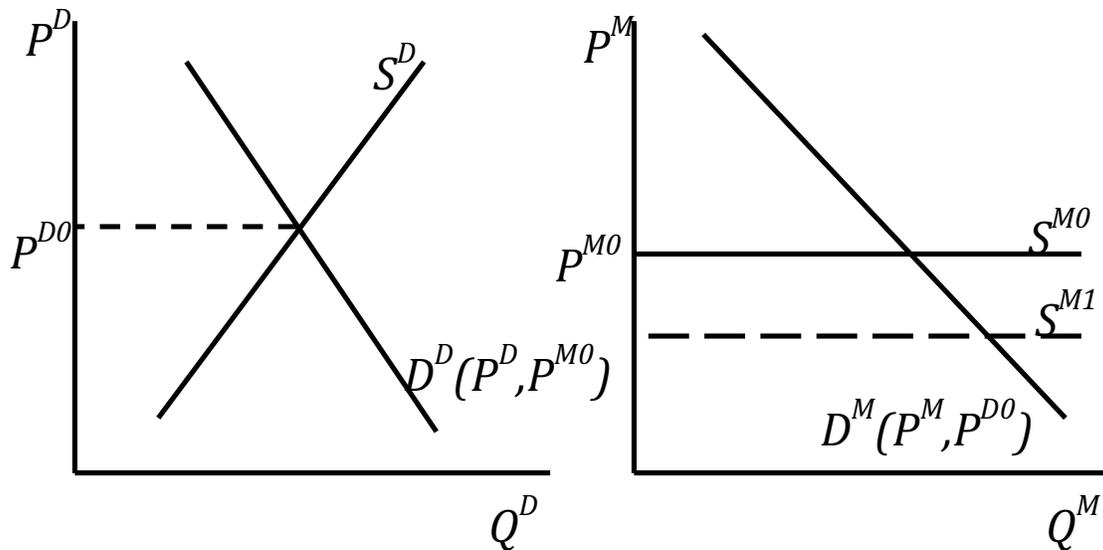
**Problem Set #5**  
**FTAs and Administrative Protection**

1. The graph below shows the domestic market of country A for a good, which it could import from either country B or country C for the prices indicated.



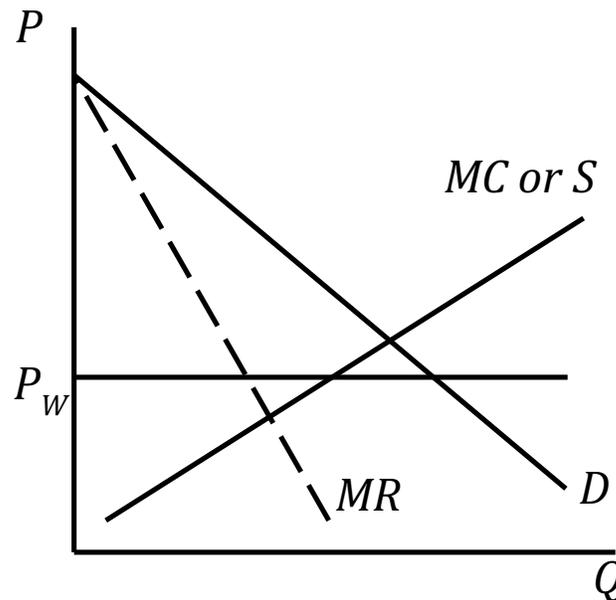
- a. Country A starts with a tariff,  $t$ , levied on imports from both countries.
- i. With the tariff applied to imports from both countries, from whom will it import, and how much?
  - ii. If country A forms a free trade area (FTA) with country B, from whom will it import, and how much? What will be the welfare effects on country A of forming the FTA in this case?
  - iii. If country A forms an FTA instead with country C, from whom will it import, and how much? What will be the welfare effects on country A in this case?
- b. Repeat part (a) but with a smaller tariff, such that  $t < P_C - P_B$ .
- c. In your answer to part (a), does it appear that country A gains or loses from the FTA with country C? Redraw the figure of question 1, with a different price for country C, such that the net welfare effect of the FTA with country C is reversed from what you found in part (a)?

2. The graphs below show an initial equilibrium for a domestic and an imported good that are substitutes.



- Suppose that the import supply curve shifts down, due to a drop in foreign costs, from  $S^{M0}$  to  $S^{M1}$ , as shown. Illustrate the new equilibrium and explain why this event would qualify the domestic industry for safeguards protection.
- Would a tariff set equal to the amount by which the foreign cost has fallen succeed in reversing the harm to the domestic industry?
- Now suppose instead that demanders of these goods were to change their preferences in favor of the imported good and against the domestic good, causing the same change in the price of the domestic good that you found in part (a). Would this change also qualify for safeguards protection? How might you identify the size of safeguards tariff that would be needed, in this case, to reverse the harm to the domestic industry?

3. The graph below shows the demand curve for a good in a small country, which faces the fixed world price  $P_w$  for the good for export and/or import. The dashed line is the corresponding marginal revenue curve for sales in that market only. The upward sloping line is marginal cost of producing the good, and, if there are many firms, it is the domestic supply curve of the industry. If there is only one domestic firm, then it is that firm's marginal cost curve. The purpose of this question is to compare the responses of this industry to a tariff, levied by this country on imports, under the two situations of perfect competition and monopoly.



- First, suppose there is free trade. How much will the domestic industry produce, to whom will it sell, how much will the domestic demanders buy, and how much will there be of exports and of imports of the good?
- Now suppose that a small tariff is levied. What does this do to the various quantities asked for in part (a)?
- Describe how each of these quantities will change as the tariff is made larger and larger.
- At what point (size of tariff) in each case does the tariff become so large that
  - imports of the good are zero?
  - A further increase in the tariff changes nothing?