

## Problem Set #2 Trade Policy

1. Use the small-economy, partial equilibrium model of a tariff to answer the following questions:
  - a. How does a rise in the world price of a good that is imported subject to a constant specific tariff affect the well being of various groups in the importing economy?
  - b. In your answer to part (a), would the effects on any of these groups be different if the tariff were *ad valorem* instead of specific?
  - c. For a given world price and a given quantity of imports with free trade, determine how the various welfare effects of a given tariff, compared to free trade, depend on the elasticities of domestic supply and domestic demand for the good.
  - d. Suppose that domestic supply is perfectly elastic at a price higher than the world price. Determine the welfare effects of a tariff starting from free trade.
  - e. Under the assumption of part (d), suppose that a tariff is more than large enough for domestic production to take place. What are the effects of increasing the size of that tariff even further?
2. Describe how you would find the optimal tariff of a large country whose elasticity of demand for imports is zero.
3. Starting from an equilibrium in which imports of a good into a small country are reduced from their free trade level to some level,  $M_0$ , by either a specific tariff,  $t_0$ , or by an auctioned import quota,  $q_0$ , compare the effects under the tariff and under the quota on i) domestic price, ii) producer welfare, iii) consumer welfare, and iv) government revenue of the following changes:
  - a. An increase (shift to the right) of domestic demand;
  - b. An increase (shift to the right) of domestic supply;
  - c. A fall in the world price.

4. Suppose that a domestic monopoly in a small country, protected by a tariff, is initially charging a profit-maximizing price in its domestic market that is above the world price, and that it is selling on both the domestic market and for export. Suppose that foreign countries now identify this behavior as dumping and that they levy an anti-dumping duty equal to the “dumping margin,” defined as the difference between the price it charges at home and the price it charges for exports.
  - a. What will the firm now do if the anti-dumping duty cannot be removed by changing its behavior?
  - b. Suppose instead that by ceasing to dump the firm could cause the anti-dumping duty to be removed. Show how you would determine what it would do in that case.
  
5. Analyze the effects of a tariff on a good imported into a small country under the assumption that it not produced inside the country at all, but that another good for which the import is a complement, is produced in the country and is not traded. A slightly contrived example might be a tariff on imports of movies into a country that has no movie industry together with the market for popcorn to be eaten at the movie theater. A rise in the price of movies will reduce the demand for popcorn.