

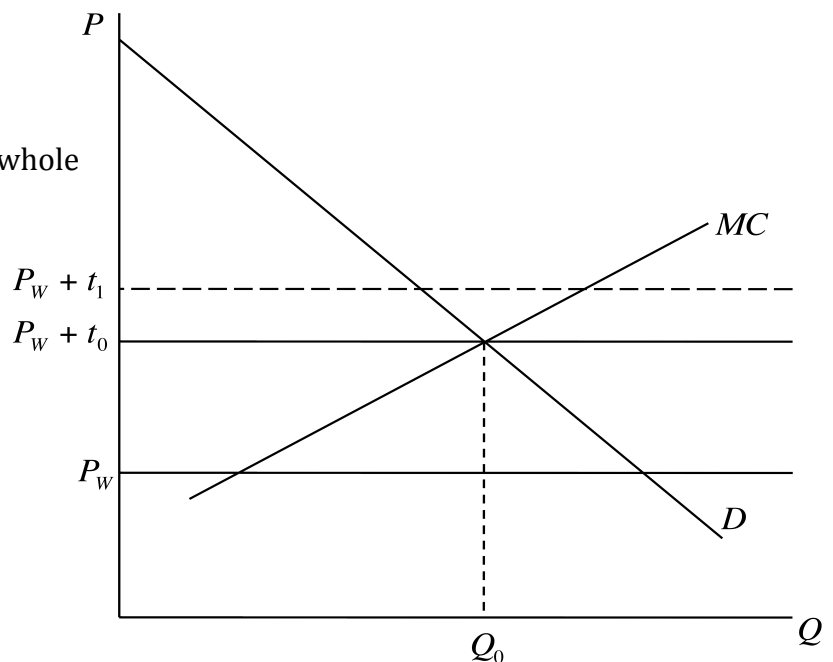
**Final Exam**  
**December 16, 2008**

Answer in blue book. Use the point values as a guide to how extensively you should answer each question, and budget your time accordingly. The exam has a total of 60 points.

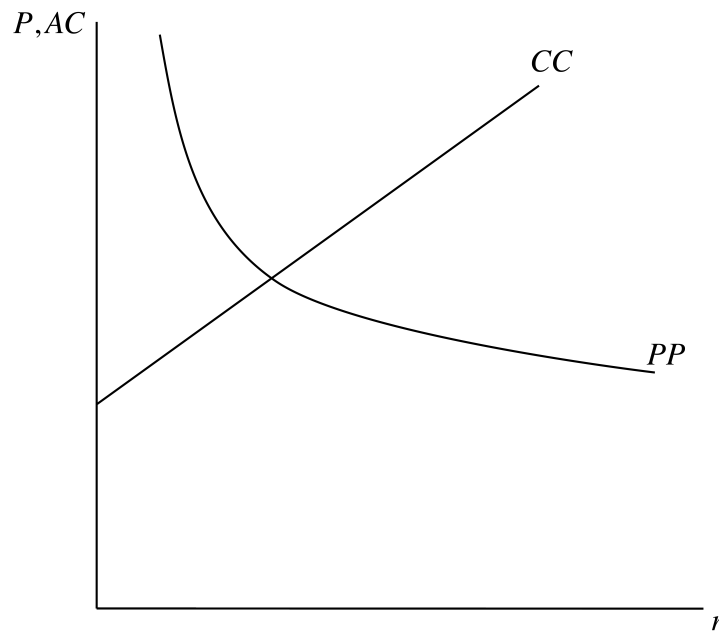
1. (8 points) In July of 2008, the Doha Round negotiations broke down. In two paragraphs, describe first the major issues that had divided the countries throughout the negotiations, and second the specific issue on which their failure to agree in July precipitated the breakdown.
  
2. (9 points) In the figure are shown domestic demand and domestic marginal cost in an industry of a small open economy that faces a world price  $P_w$  of this good. The marginal cost curve may represent that of a perfectly competitive industry with lots of domestic firms, in which case  $MC$  is the competitive supply curve. Or, in a different case,  $MC$  may be the marginal cost of a single firm, the only firm producing the good in the country. In both cases, initially the country is levying a tariff of  $t_0$ , the domestic price is  $P_w + t_0$  which happens to be at the intersection of  $D$  and  $MC$ , and the country is thus both producing and consuming the quantity  $Q_0$ .

Suppose now that the country increases its tariff to the level  $t_1$  shown. Explain what happens, as a result, first (Case 1) under the assumption that there are a large number of competitive domestic firms with supply curve  $MC$ , and second (Case 2) under the assumption that there is only a single domestic firm with marginal cost curve  $MC$ . Specifically, say what happens to

- a. Domestic price
- b. Domestic production
- c. Domestic consumption
- d. Producer welfare
- e. Consumer welfare
- f. Government revenue
- g. Welfare of the country as a whole



3. (10 points) Use the monopolistic competition model (reminder: it's the model whose diagram appears below) to show what will happen...
- If two identical countries move from autarky to free trade
    - To price;
    - To the number of firms from which consumers can buy; and
    - To the number of firms in each country.
  - If, starting from free trade, there is a fall in the marginal cost of production (the same in each firm)
    - To price;
    - To the number of firms.



4. (9 points) Consider a domestic monopoly that is protected by a very high tariff from competition from a competitive foreign market, so that it can charge one price in its home market and another abroad. Assume that the firm's marginal cost is constant and that all supply and demand curves are linear.
- Show an equilibrium in which the firm engages in dumping.
  - If the firm were now confronted with an anti-dumping statute and it wished to avoid being subjected to an anti-dumping duty, how would it alter its behavior? Be sure to show a case in which it continues to serve both markets.

5. (24 points) Suppose you are the USITC trying to decide a safeguard case in the United States broom industry. You somehow know that supply elasticity of the US broom manufacturers (who are numerous and plausibly perfectly competitive) is +2.0, but you have been given two different estimates of the US elasticity of demand for brooms: -1.0 and -3.0. The world price of brooms has recently fallen from \$5.00 to \$4.00, at which price the industry is now producing 8.0 million brooms domestically and importing 72.0 million brooms. Assume that domestic and imported brooms are identical and, except where told otherwise, that these quantities are a negligible part of the world market for brooms.

Answer the following questions, giving two answers to each if they depend upon the elasticity of demand, one for each of the two elasticities above. (If you have trouble with parts of the question, go ahead and answer other parts even if you need to make up answers to work with. I will then grade based on those made-up or incorrect answers.)

- a. Assuming that employment in the industry is proportional to output, by what percentage did employment recently drop?
- b. What size *ad valorem* tariff should the ITC recommend if it wishes to restore employment to what it was before? How would your answer differ if you thought that US demand for brooms was a large part of the world market?
- c. Using the tariff you specified in the first part of (b), by what percentage does the demand for brooms decline as a result of the tariff? Also, by what percentage does the US demand for *imports* of brooms decline as a result of the tariff?
- d. From your answer to part (c), what is the elasticity of demand for imports? How does it compare to the underlying elasticities of supply and demand, and why?
- e. Again using the tariff from the first part of (b), calculate the change in consumer surplus due to the tariff. Explain why consumers are hurt less in one elasticity case than in the other.
- f. What is the net welfare cost to the country of using this tariff? Again, explain why the country is hurt less in one elasticity case than in the other.
- g. What policy, other than a tariff, could achieve the same restoration of broom-industry employment but at lower cost to the economy as a whole?
- h. Discuss briefly two other policies, both of which appear in US law, by which this disruption to the broom industry might be dealt with.