Public Affairs 856
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University of Wisconsin-Madison

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Social Sciences 7418

Midterm Exam 2 Answers

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. Answer all questions in your bluebook. ***[partial credit granted]***

Part I: Multiple Choice [28 minutes, 4 minutes each]

1. Selling goods abroad at a price lower than sold at home
a. is sometimes called dumping.
b. never makes economic sense if the home firm is a monopolist.
c. is a manifestation of price discrimination, when the foreign market demand is more price elastic than the home.
d. (a) and (c) above.

2. Offshoring in practice
a. results in greater relative demand for skilled labor in both advanced and developing countries
b. has resulted in reduced cost of production
c. results in taking advantage of comparative advantage in intermediates
d. all of the above.

3. Preferential trading arrangements
a. always benefit all the member countries
b. can shift import sources away from the lowest cost producer
c. will typically increase trade between member countries
d. both (b) and (c) above.

4. When the marginal social cost of producing widgets is less than the private marginal cost, then
a. exports of widgets should be subsidized.
b. exports of widgets should be taxed.
c. production of widgets should be subsidized.
d. production of widgets should be taxed.

5. An Optimal Tariff
a. refers to a situation when a tariff hurts a country's economic welfare.
b. refers to a situation when the imposition of a tariff lowers domestic prices.
c. could theoretically happen when a small country levies a tariff.
d. None of the above.

6. Monopolistic competition is associated with
a. product differentiation.
b. high profit margins.
c. explicit consideration at firm level of the feedback effects of other firms' pricing decisions.
d. None of the above.

7. In the short run, when factors of production are fixed in given sectors, and labor is mobile
a. Immigration does not change wages, as the sectors expand to absorb the incoming labor.
b. wages fall, and returns to the fixed factors rise.
c. real wages necessarily rise because costs of production will fall.
d. both (b) and (c).

[EXAM CONTINUES]

Part II: Short Answer [32 minutes]

1. [17 minutes] Consider the following diagram of a **large** country that exports widget. (The home widget industry is competitive.) P_W is the initial (free trade) world price of widgets.

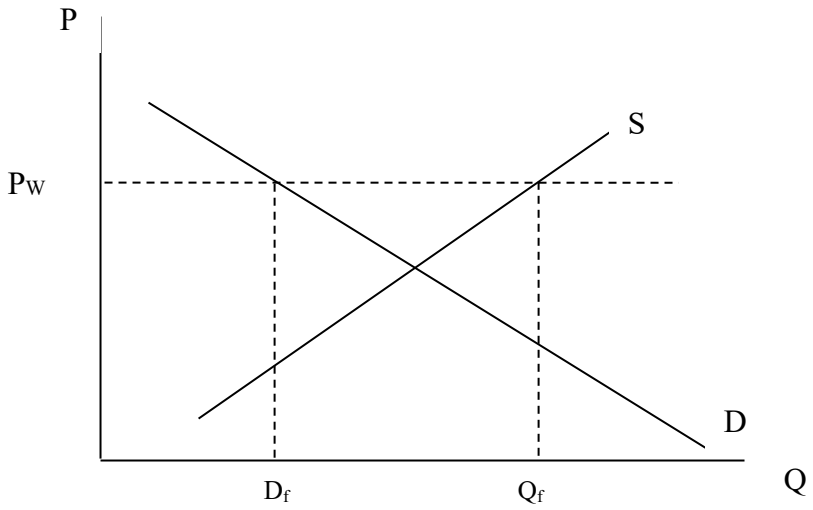
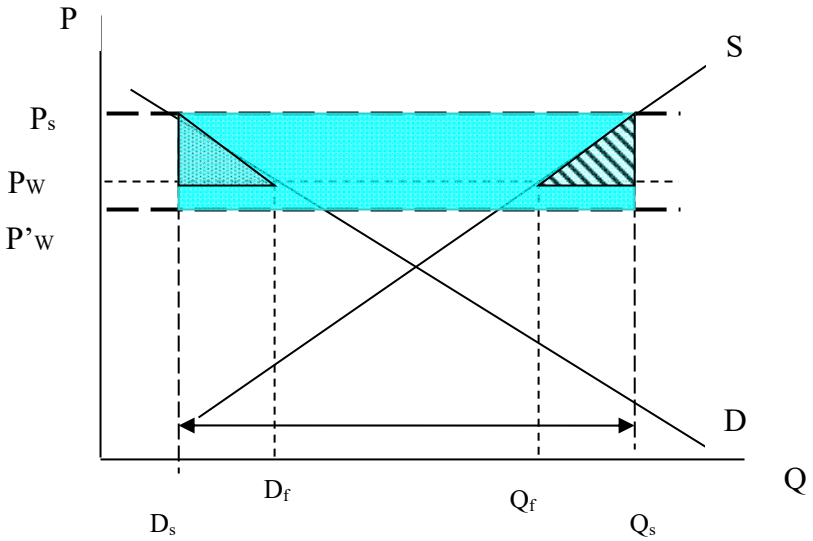


Figure 1

On newly drawn graph,

1.1 (5 minutes) Show what happens to the quantity of exports if an *specific* export subsidy of amount *s*. Indicate the new quantities produced and demanded at home (Q_s and D_s, respectively), and the amount of exports. Also show the price at which shirts sell at home (P_s).



This is large country, ***so export subsidy has an effect on world price*** (going from P_w to P'_w), as shown in Figure 1. Original exports is Q_f-D_f. New amount exported is shown by two-headed arrow, Q_s-D_s.

1.2 (3 minutes) What is the expense to the nation's treasury?

Blue highlighted area is the cost to the treasury, which is $sx(Q_s-D_s)$.

Shaded area in box, in figure 1.

1.3 (3 minutes) What is consumption side dead weight loss?

Triangle dotted under Demand curve.

1.4 (3 minutes) What is the production side dead weight loss?

Triangle cross-hatched under Supply curve.

1.5 (3 minutes) Given these assumptions, can the country be made better of by imposing this export subsidy?

No, since the exports are being sold to the foreign country at a lower price than before, i.e., the terms of trade are deteriorated by the export subsidy. In addition, there are two dead weight losses, so national welfare unambiguously declines.

2. [15 minutes] Consider the home steel market with only one steel producer. Assume further the country is small.

2.1 (5 minutes) Draw the supply, demand, and other relevant curves in a graph which shows the quantities produced and demanded at home (Q_{ff} and D_{ff}, respectively), and the amount of imports under free trade. Suppose a specific tariff is introduced. Indicate the new quantities produced and demanded at home (Q_τ and D_τ, respectively), and the amount of imports.

The new amount of imports is given by the distance of the two-headed arrow in Figure 2 below (D_T-Q_T), which is less than the initial.

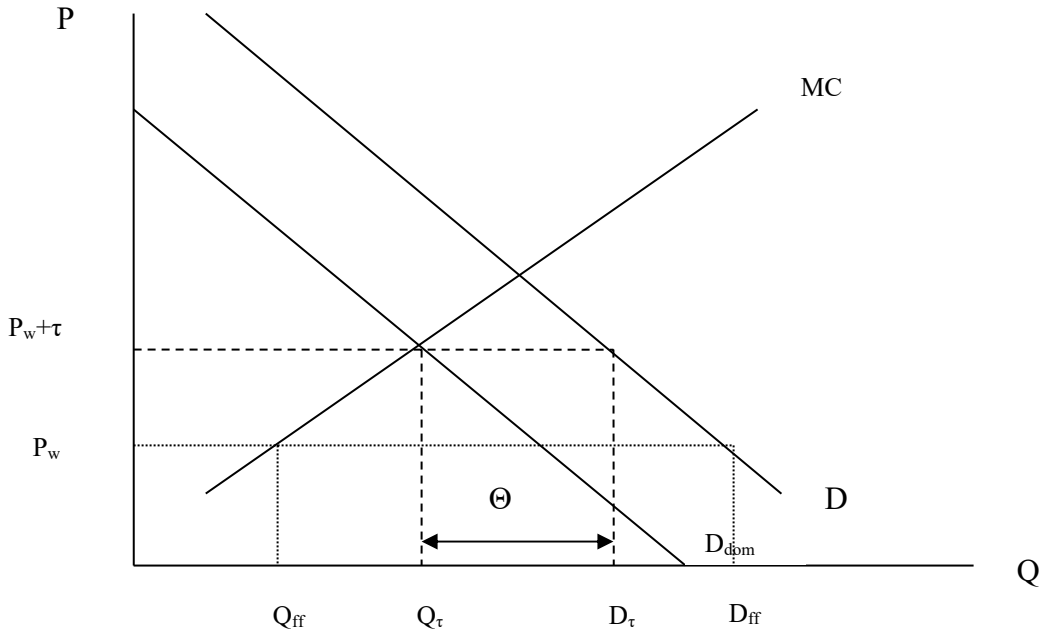


Figure 2

2.2 (5 minutes) Let the amount of imports in the previous question be Θ. Now suppose that the government use a quota of Θ amount of steel instead of the tariff. Indicate the quantities produced and demanded at home (Q_{qm} and D_{qm}, respectively), and the amount of imports. In addition, indicate the price at which steel will be priced at, P_{qm}.

See Figure 3 below. The effective demand curve for the monopolist is the overall, shifted in by the amount Θ. Imports are D_{qm}-Q_{qm}. Price is at $P_{qm} > P_{w+\tau}$.

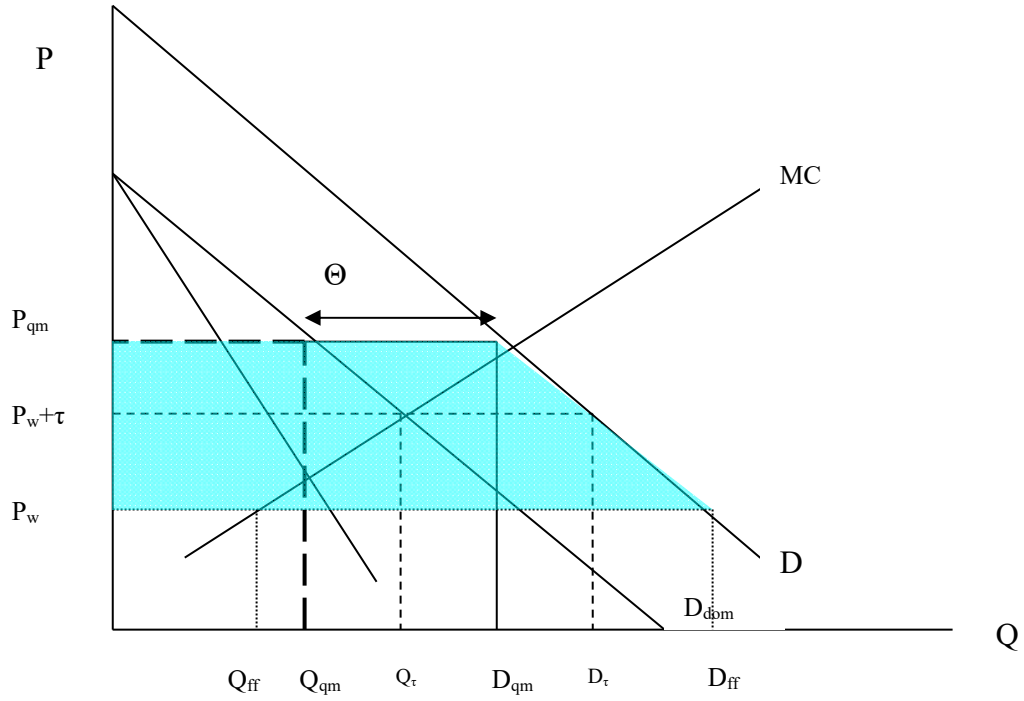


Figure 3

2.3 (5 minutes) Show the change in consumer surplus in 2.2 *relative to free trade*.

Initial consumer surplus is triangle under demand curve down to Pw. New consumer surplus is area under demand curve down to Pqm. Blue shaded area in Figure 3 is the reduction in consumer surplus.

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