Midterm Exam
November 9, 2015

Answer on these sheets. Use the indicated point values as a guide to how extensively you should answer each question, and budget your time accordingly. Note that the last page of the exam (page 7) is intentionally left blank for you to use if you run out of space to answer any of the questions, although I do not intend that you should need it.

The exam has a total of 60 points.
1. (10 pts.) Define any five (5) of the following seven terms. (If you answer more than 5, I will grade only the first 5, so be sure to cross out any answers you don’t want me to grade.)

a. Bicycle theory:

b. Balance on Current Account:

c. Voluntary export restraint:

d. Ad valorem tariff:

e. Tariff equivalent of a quota:

f. Most favored nation treatment:

g. Column 2 tariffs:
2. (16 pts) The figure at the right shows the domestic market for a good in a small country, facing a world price of $P^W_0$ and using a quota of size $\bar{Q}$. Suppose now that the government doubles the size of the quota to $2\bar{Q}$. Add your own lines and labels to the figure as needed to indicate the following:

a. The domestic price in the presence of the initial quota $\bar{Q}$.

b. The domestic price in the presence of the new quota $2\bar{Q}$.

c. The change in producer surplus of domestic suppliers (due to doubling the quota):

d. The change in consumer surplus of domestic demanders (due to doubling the quota):

e. The change in quota rents (due to doubling the quota):

f. The change in welfare of the country as whole, due to doubling the quota, if quota rents, before and after, are retained within the country:

g. The change in welfare of the country as whole, due to doubling the quota, if quota rents, before and after, go to the foreign country:
3. (4 pts) Of the European Commission, the European Council, and the European Parliament, which do the following:

a. Make trade policy (e.g., set tariffs)?

b. Authorize negotiation of trade agreements?

c. Negotiate trade agreements?

d. Approve trade agreements?

4. (6 pts) Suppose that foreign producers of imports to our country become more efficient, so that their costs fall. How will

a. the domestic price of the good and
b. the quantity of imports

respond to this fall in foreign costs under each of the policies for restricting imports listed in the table below? Fill in the table with one of the following for each cell:

+ for an increase,
– for a decrease,
0 for no change, or
? for a change that could be either positive or negative.

(Feel free to draw figures to help you find the answers, but you will be graded only on what you insert in the table.)

<table>
<thead>
<tr>
<th>Policy</th>
<th>a. Price</th>
<th>b. Quantity</th>
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<tbody>
<tr>
<td>Tariff</td>
<td></td>
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<tr>
<td>Quota</td>
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<tr>
<td>Variable levy</td>
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</tbody>
</table>
5. (10 pts) Write a short essay explaining several (at least 5) sources of gain from trade.
6. (14 pts) Thailand produces a lot of rice, which it exports, but production of rice requires fertilizer, and Thailand’s domestic fertilizer industry initially produces less of it than is needed by the rice industry. Thailand is a small economy, initially with free trade in both products. The initial equilibrium is shown in the graphs below, including the initial quantities of rice demanded $D_0^{RT}$ and supplied $S_0^{RT}$ domestically and the initial quantities of fertilizer supplied $S_0^{FT}$ and demanded $D_0^{FT}$ domestically.

![Diagram showing supply and demand for rice and fertilizer](image)

a. Supply and demand curves are labeled in the figure, but their arguments have been omitted. Fill those in. That is, on what do each of these supplies and demands depend?

b. Show in the figure the effects of a tariff, $t$, of the size shown on prices of both fertilizer $P_1^{FT}$ and rice $P_1^{RT}$ and on quantities supplied, demanded, and traded of each good, $S_1^{FT}$, $S_1^{RT}$, $D_1^{FT}$, $D_1^{RT}$, $X_1^{RT}$.

c. Who gains and who loses (no need to say by how much) from the tariff?