Econ 188 – Exam 1
Spring 2014
Professor Spearot

I have neither given nor received unauthorized aid on this examination, nor have I concealed any similar misconduct by others.

Signature ________________________________

Part 1 (2 points each – circle one unless otherwise noted)

1. An iceberg trade cost is _____
   a. assessed per-unit
   b. assessed as a percentage of production value
   c. a fixed cost
   d. None of the above

2. Exported value from the US ______
   a. is concentrated in relatively few firms
   b. currently exceeds imported value
   c. ‘a’ and ‘b’
   d. neither ‘a’ or ‘b’

3. Most exporters in the US ______
   a. focus on one destination
   b. focus on one product
   c. ‘a’ and ‘b’
   d. neither ‘a’ or ‘b’

4. Liner shipping ______.
   a. Often uses containerization
   b. Has no defined port of call
   c. ‘a’ and ‘b’
   d. None of the above

5. During the Canada-US Free Trade Agreement, ______ significantly increased employment in Canada.
   a. Canadian Tariff Cuts
   b. US Tariff Cuts
   c. US GDP Growth
   d. None of the above
Part 2: (10 points each)

1. Please list 3 pros and 3 cons of Ben and Jerry’s expanding to international markets.

**PRO**

- *Excess capacity in the US*
- *Sales growth slowing in the US*
- *Larger market for superpremium ice cream abroad*

**CON**

- *Management resources stretched thin.*
- *Main competitor, Haagen Daz, is huge*
- *Method of entry is not trivial*
- *Terrible history performing in international markets*

2. Please discuss three ways in which the Melitz firm-heterogeneity model differs from the standard trade model.

- *There are firms, and they are different.*
- *Only some firms export in Melitz, specifically, when profitable enough.*
- *Economies of scale (fixed costs) in Melitz.*
- *There is two way trade of varieties (like in Krugman)*
- *Market power within varieties*
Part 3 – 10 Points each

Consider the “Melitz” exporting model we discussed in class. A firm must decide to exit the market or operate, and if the latter, whether to be purely domestic or a domestic firm that also exports. The returns from exiting are zero. If the firm decides to operate in some manner, it must pay $F_0$ in overhead costs. If the firm also decides to export, it must pay $F_X$ in exporting fixed costs, such as up-front export financing. The firm can earn $\Pi_d(\alpha)$ in the domestic market. If the firm exports, it earns $\Pi_f(\alpha)$ in the foreign market, but loses ‘t’ percent of these profits through a foreign tariff. The term $\alpha$ is firm level productivity, where each profit function is increasing in $\alpha$.

1. Please graphically detail how firms sort into the three outcomes. Please comment on the relative productivity of each group of firms.

Productivity of Exporters > Productivity of Domestic only firms > Productivity of firms that Exit.
2. Suppose that due to a previous violation of international agreements, the foreign tariff ‘t’ is reduced. However, in response, foreign increases “technical barriers to trade”, such as red tape, product requirements, and other aspects that increase fixed exporting costs. Please detail graphically the direct effects of the change in tariffs and other costs. Can we say, with certainty, whether the group of exporting firms will expand or contract? If so, please detail this change. If not, briefly explain the intuition why not.

We cannot say with certainty what happens to the group of exporters. In the below graph, fixed costs go up to $F'$, thereby shifting the exporting profit curve downward. Exporting is less profitable. However, tariffs also fall so the slope of the export profit function increases reflecting the improved export profits with lower tariffs. Hence, unless we know the precise size of tariff cut relative to the fixed cost change, we cannot say what will happen to the group of exporting firms. In the bottom graph, $\Pi'_x$ is with a relatively small tariff cut, and $\Pi''_x$ is with a relatively large tariff cut. In the former case, exporting for the marginal firm is less profitable, and hence, the region of exporting shrinks. In the latter case, the marginal firm is more profitable at exporting, and hence to region of exporting expands.
3. In problem 2 (of part 3), which group of firms is always more profitable after the change in policies. Please briefly discuss the intuition behind this result.

As discussed in part 2, there are two effects on the cost shock. On one hand, fixed costs are higher so everybody is less profitable through this channel. On the other hand, tariffs go down so the profit functions pivot upwards from the intersection on the y axis. Hence, there exists a region of firms – the highest productivity firms – that will benefit from this policy change. While they’re paying more in fixed costs, they’re productive such that the increased profits from a reduction in tariffs.