ECN 481/581, Winter 2008
Prof. Bruce Blonigen

NAME: ANSWER KEY
ID#: _____

MIDTERM – Version A

Tuesday, February 12, 2008

Multiple choice – circle the most appropriate answer. Each question worth 3 points.

1) David Hume's critique of the mercantilist goal to maximize exports and minimize imports was that

a) countries gain from *both* imports and exports due to absolute advantage.
b) countries gain from *both* imports and exports due to comparative advantage.
c) a positive trade balance brings in more specie (money), leading to inflation of prices, which will naturally push exports and imports to be equal.
d) if we try to export too much, other countries will find other trading partners.

2) A general pattern in the international trade data is that

a) international trade as a percent of gross domestic product is greater for small countries.
b) rich countries trade a lot more with poorer countries than other rich countries.
c) the growth in international trade has been about the same as worldwide GDP growth over the last twenty years.
d) countries trade more with each other, the further apart they are in distance.

3) Indifference curves are convex to the origin in the standard two-good graph due to

a) economies of scale.
b) increasing opportunity costs of production.
c) the law that increased consumption increases a person's utility.
d) diminishing marginal rates of substitution.

4) Which of the following does NOT occur when a country opens up to trade in a standard neoclassical model?

a) Comparative advantage differences between the countries decrease.
b) A country produces more of the good for which it has a comparative advantage.
c) The price of the good for which the country has a comparative advantage increases.
d) Overall welfare (utility) for both countries increases.

5) In economics, the term "laissez faire"

a) means allowing individuals to pursue their own activities with as little regulation as necessary.
b) refers to the situation where a country does not trade internationally.
c) refers to the belief that wealth stems from how much specie (money) one has.
d) refers to a market for clothing.

6) The consumption-possibilities frontier (CPF) is

a) a straight line in the Ricardian model, but concave in the Neoclassical model.
b) identical to the production-possibilities frontier (PPF) in autarky.
c) convex due to diminishing marginal rates of substitution.
d) always steeper in slope than the production-possibilities frontier (PPF).

7) Which theorem from the Heckscher-Ohlin model is consistent with people's concerns that NAFTA could lower U.S. wages?

a) Heckscher-Ohlin theorem.
b) Rybczynski theorem.
c) Factor price equalization.
d) The Leontief paradox

8) The offer curve bends back toward the axis of the good that the country imports when

a) the income effect from an increase in the country's terms of trade dominates the substitution effect.
b) the substitution effect from an increase in the country's terms of trade dominates the income effect.
c) the terms of trade equals the other country's autarky prices.
d) Offer curves bend back towards a country's export-good axis, not the import-good axis.

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Fill in the blank - each worth 2.5 points

9) Besides the U.S., list three of the top six importing nations in 2005.

A) Germany
B) China
C) Japan
United Kingdom
France

10) List four assumptions of the Heckscher-Ohlin trade model.

A) _____
B) _____
C) _____
D) _____

} See handout from Feb. 5 Class

11) List the three possible sources of comparative advantage in a neoclassical model of trade.

A) Preferences
B) Technology
C) Factor Endowments

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MULTIPLE GOODS AND THE RICARDIAN MODEL Suppose there are two countries, Canada and Mexico with the following numbers that indicate the amount of time to produce one unit of the indicated good. Use this information for questions 13-15. (8 points for each question)

	Amount of labor to produce 1 unit of good	
	Mexico	**Canada**
Beer	**12**	**4**
Steel	**24**	**10**
Corn	**8**	**8**
Snowmobiles	**12**	**8**
Tequila	**20**	**5**

13) If Canadian wages are 2.5 times higher than Mexican wages (after converting wages into a common currency with an exchange rate), which goods will Canada export (if any) and which goods will Mexico export (if any). Show your calculations to get full credit.

Canada will export a good if its productivity $\left(\frac{1/a_{can}}{1/a_{mex}} = \frac{a_{mex}}{a_{can}}\right) > 2.5$

Mexico will export a good if $\frac{a_{mex}}{a_{can}} < 2.5$

Chain of comparative advantage

$$\frac{a_{mex}}{a_{can}}: \quad \frac{\text{Corn}}{\frac{8}{8}} < \frac{\text{Snowmobiles}}{\frac{12}{8}} < \frac{\text{Steel}}{\frac{24}{10}} < 2.5 < \frac{\text{Beer}}{\frac{12}{4}} < \frac{\text{Tequila}}{\frac{20}{5}}$$

Therefore, Canada exports Beer and Tequila;
Mexico exports Corn, Snowmobiles, and Steel

MULTIPLE GOODS AND THE RICARDIAN MODEL. Continue to use the following table for these questions.

	Amount of labor to produce 1 unit of good	
	Mexico	Canada
Beer	12	4
Steel	24	10
Corn	8	8
Snowmobiles	12	8
Tequila	20	5

14) Would your answer in the previous question change at all if transportation costs were two units of labor that the exporting country had to pay to ship it to the importing country? If it does change, explain exactly how it changes. If it does not, explain why not.

Now export conditions are the following: Canada: $\frac{a_{MEX}}{a_{CAN}+tr} > 2.5$

Mexico: $\frac{a_{MEX}+tr}{a_{CAN}} < 2.5$

where "tr" represents transport costs

Chain of comp. adv. for CANADA →

$$\frac{\text{Corn}}{\frac{8}{8+2}} < \frac{\text{Snowmobiles}}{\frac{12}{8+2}} < \frac{\text{Steel}}{\frac{24}{10+2}} \leq \frac{\text{Beer}}{\frac{12}{4+2}} < 2.5 < \frac{\text{Tequila}}{\frac{20}{5+2}}$$

CANADA now only exports Tequila

Chain of comp. adv. for MEXICO →

$$\frac{\text{Corn}}{\frac{8+2}{8}} < \frac{\text{Snowmobiles}}{\frac{12+2}{8}} < 2.5 < \frac{\text{Steel}}{\frac{24+2}{10}} < \frac{\text{Beer}}{\frac{12+2}{4}} < \frac{\text{Tequila}}{\frac{20+2}{5}}$$

MEXICO now only exports CORN and SNOWMOBILES

15) Suppose Mexico mandated a much higher "fair wage" for all workers in Mexico, so that Canadian wages were now only 1.25 times higher than in Mexico. Which products will Mexico export now, if any? Assume zero transportation costs again. Just list the products - no need to show calculations.

Mexico would only export Corn based on where 1.25 falls in the comparative advantage chain in the answer to question 13.

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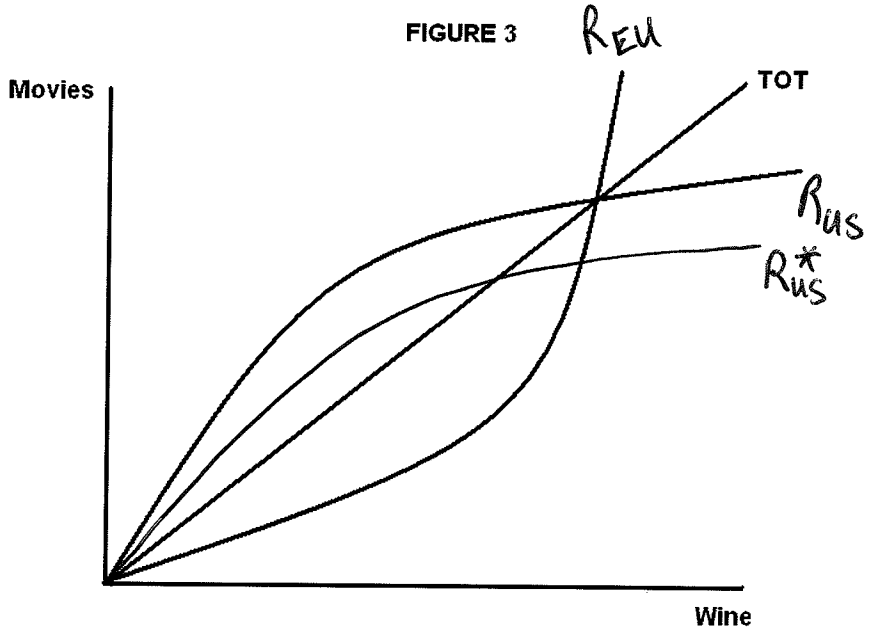
RECESSIONS ACROSS COUNTRIES AND TRADE: Figure 3 below shows the offer curves of the United States (US) and the European Union (EU) for a two country world with two products, Wine and Movies. Use this graph to answer the following questions assuming that the US has the comparative advantage in Movies. TOT is the label for the existing equilibrium terms of trade. (27 total points for questions 16-20)

FIGURE 3



16) On Figure G, label the US offer curve, $\mathbf{R_{US}}$, and label the EU offer curve, $\mathbf{R_{EU}}$.

17) Suppose that a recession suddenly hits the US and causes the US' economy to shrink and for them to have lower offers for any terms of trade. Draw in the new offer curve for the US and label this $\mathbf{R_{US}^*}$.

18) Given the shape of the offer curves in Figure 3, how will the following variables change after the US recession occurs and changes their offer curve?

A) Total trade in Movies (increase, decrease or ambiguous): decrease
B) Total trade in Wine (increase, decrease or ambiguous): decrease
C) Terms of Trade from the US perspective (worsen, improve, or ambiguous): improve

19) Now suppose that the EU also goes into an immediate recession as soon as the US has a recession which changes its offer curve accordingly. Given the shape of the offer curves, what will happen to the following after ***both*** the US and EU recessions occur?

A) Total trade in Movies (increase, decrease or ambiguous): decrease
B) Total trade in Wine (increase, decrease or ambiguous): decrease
C) Terms of Trade from the US perspective (worsen, improve, or ambiguous): ambiguous

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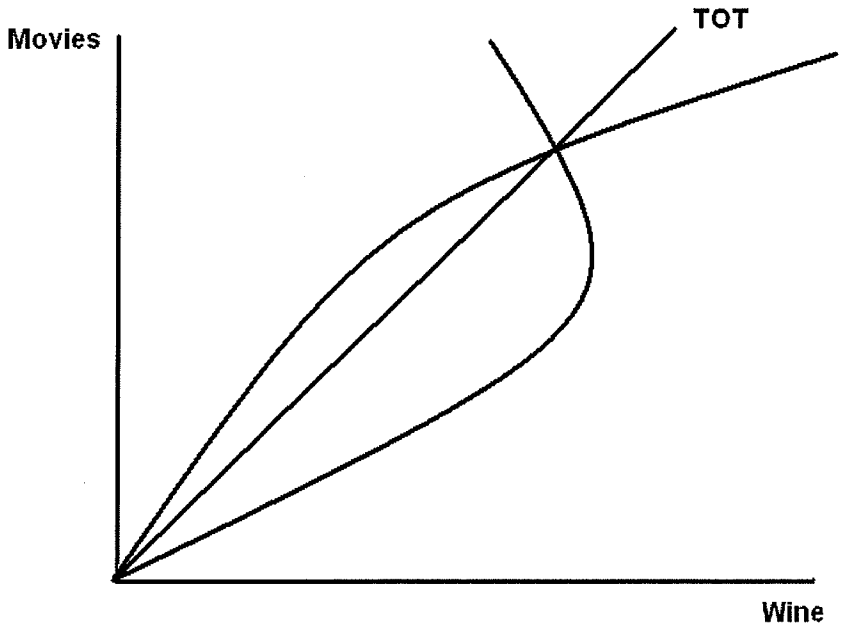
RECESSIONS ACROSS COUNTRIES AND TRADE continued:

FIGURE 4



20) Now assume that Figure 4 above depicts the trading equilibrium between the US and the EU before any recession. Note how the following variables change after a US recession occurs (with no EU recession):

A) Total trade in Movies (increase, decrease or ambiguous): decrease
B) Total trade in Wine (increase, decrease or ambiguous): ambiguous
C) Terms of Trade from the US perspective (worsen, improve, or ambiguous): improve

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RICARDIAN MODEL AND UNEMPLOYMENT. The Table below shows how much labor time it takes to produce one unit of a good in a country. Use this information to answer questions 21-24. (6 points for each question)

	Oil	Peanuts
Ghana	6	5
Nigeria	5	3

21) Which country has the absolute advantage in Oil? Nigeria
Which country has the absolute advantage in Peanuts? Nigeria
Which country has the comparative advantage in Oil? Ghana
Which country has the comparative advantage in Peanuts? Nigeria

22) Ghana has 60 units of labor time. Given this information, label the intercepts of Ghana's PPF in Figure 5 below. (Note: Graph is not necessarily to scale)

23) The point A on Ghana's PPF in Figure 5 represents equilibrium in autarky. Suppose that when Ghana opens up to trade, the best it can do in terms of specializing production is point B. Explain how point B represents a production point where there is unemployment in the economy (assuming the country is using the best available technology).

Since point B represents a production bundle that is less than what one could obtain on the PPF, the country must not be employing all its labor (assuming it is using the best technology available).

24) Draw in a new trade equilibrium in Figure 5 that has the country producing at point B, but still attaining a higher level of utility than in autarky. Label the international price line, π. Label the new consumption point for the country, C. And draw in and label the new (higher) indifference curve, U_T.

Figure 5