Economics 101 — Spring 2006

International Trade

Problem Set 3

May 18, 2006

Due:	**Tue, June 6, 11:00am**
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1 Import Tariffs and Export Promotion in a Small Open Economy's General Equilibrium

A small open economy produces cars and grows food with some unspecified number of factors of production. The opportunity costs of car production in terms of food change with the production pattern but are lower than those of its trading partners.

- Draw a production possibility frontier that is consistent with the above assumptions.
- Depict an initial world trade equilibrium and the consumption possibilities of the small open economy, consistent with the above assumptions.
- Suppose the small open economy imposes a tariff on its imports. How do the country's Terms of Trade change? How does the domestic price ratio change? How will the small open economy's production pattern change? How will the small open economy's consumption and trade pattern change? How is welfare affected?
- Suppose the small open economy promotes its exports with a cost subsidy to producers. How do the country's Terms of Trade change? How does the domestic price ratio change? How will the small open economy's production pattern change? How will the small open economy's consumption and trade pattern change? How is welfare affected? Is there a difference to the import tariff?

2 Import Tariffs and Export Promotion in World General Equilibrium with a Large Country

A large economy produces cars and grows food with some unspecified number of factors of production. The opportunity costs of car production in terms of food change with the production pattern but are lower than those of its trading partners.

- Draw a production possibility frontier that is consistent with the above assumptions.
- Depict an initial world trade equilibrium and the consumption possibilities of the large country, consistent with the above assumptions.

- Suppose the large country imposes a tariff on its imports. How do the country's Terms of Trade change? How does the domestic price ratio change? How will the large country's production pattern change? How will the large country's consumption and trade pattern change? How is welfare affected?
- Suppose the large country promotes its exports with a cost subsidy to producers. How do the country's Terms of Trade change? How does the domestic price ratio change? How will the country's production pattern change? How will its consumption and trade pattern change? How is welfare affected? Is there a difference to the import tariff?

3 Import Tariff in Partial Equilibrium

Home's demand and supply for cars are given by: $D = 130 - 30 \cdot P$ and $S = 10 + 30 \cdot P$, while Foreign's demand and supply for cars are: $D^* = 60 - 30 \cdot P$ and $S^* = 40 + 30 \cdot P$ (P is thousands of US$).

- Determine the autarky equilibrium, and calculate domestic price for each country. Illustrate your answer with suitable graphs.
- Derive Home's import demand schedule and Foreign's export supply schedule. Calculate and depict the world price when both countries trade, and show the traded quantities.
- Home imposes a tariff of $\tau = .4$ per car. Calculate and depict the price that Home consumers pay. Show domestic consumption, production and the trade volume.
- Show graphically how the tariff affects Home welfare. Distinguish Home consumer surplus, producer surplus and government revenues.
- Did the tariff improve efficiency? Show the net efficiency gain or loss graphically.

4 Export Promotion in Partial Equilibrium

Consider the two countries from question 3 again. Home has a tariff of $\tau = .4$ per car in place.

The Foreign government decides to grant an export subsidy of $\tau = .4$ per exported car.

- How does this subsidy affect Home welfare?
- Show the changes to surpluses and tax revenues for Foreign.

5 Political Economy of Trade

As opposed to the findings of Magee (1980) for the tariff reforms in US Congress in 1973, Baldwin and Magee (2000) identify the following contributions and voting patterns in 1993 and 1994.

	Congressional votes	
	For NAFTA 1993	For GATT 1994
Actual votes	*229*	*283*
Predicted by model	229	290
Absence of labor contributions	+62	+56
Absence of business contributions	−34	−33
Absence of any contributions	+27	+33

Baldwin and Magee (2000)

- Is this evidence for or against the Stolper-Samuelson theorem?
- Is Heckscher-Ohlin trade theory supported? If not, what would voting patterns have to look like?
- Is the Specific Factors model (Ricardo-Viner trade theory) supported? If not, what would voting patterns have to look like?
- Discuss in what regards the results of Baldwin and Magee (2000) stand in contrast to those of Magee (1980).

6 The Doha Round of Trade Negotiations

The Doha round of trade negotiations is under way. Select a country, or a group of countries, *outside* of NAFTA, conduct research into the country's position for the Doha negotiations, and discuss the benefits and possible short-term or long-term costs of a Doha agreement for the country (or group of countries).

Pay particular attention to

- the likely patterns of trade given resource endowments and productivity differences,
- the possible terms-of-trade effects,
- improved market access, and
- the consequences of your insights for the political agenda of the country's position in the Doha negotiations.