Macro II
Spring 2022

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Homework 2

(due on May 18)

Question 1: A country's output vector is $X = (4, 2, 4)$, the world's output vector is $X^w = (110, 220, 200)$, the price vector is $p = (12, 9, 12)$, and the commonly used input output coefficients are

$$\begin{pmatrix} 1 & 1 & 2 \\ 1 & 1 & 1 \\ 2 & 1 & 1 \end{pmatrix}$$

where the first row describes labor coefficients, the second row describes land coefficients, and the third row describes capital coefficients. All countries have identical homothetic preferences and balanced trade.

a) Describe the country's pattern of commodity trade.

b) Describe its pattern of trade in factor content.

c) What are the equilibrium factor prices?

Question 2: Carry out the empirical exercises that you find at the end of chapter 2 in the Feenstra book. You can download the data and stata do files at this URL:
`http://willmann.com/~gerald/trade/Chapter-2.zip`

Question 3: Trade Policy Issues.

a) Derive the optimal tariff in the large country, perfect competition case mathematically, and demonstrate it graphically. Also explain why the optimal tariff for a small country is zero.

b) Show that there are Pareto gains from trade, both using lump sum compensation as well as Dixit-Norman taxation. Briefly discuss the problems of each compensation scheme.

c) Research the EU-Turkey customs union, list the changes that have been demanded by Turkey, and discuss their merits (feel free to voice your opinion here).