

EC 380: International Economic Issues
Instructor: P. Economides
Problem Set 1
Winter 2023
Due: 11:59 p.m. on Friday, January 20th

Setup

Answers must be submitted online through Canvas by the stated deadline (see above).

Questions

Q1. Answer the following short questions:

- 1) How is the Trade to GDP ratio measured? How has this value been trending over the years?
- 2) How does labor mobility far compared to the early 1900s?
- 3) Describe two features of contemporary international economic relations.

4) Briefly describe what a trade deficit is and the US track record on deficits.

5) Describe the employment possibilities and occupations open to students of international economics.

Q2. Suppose we are considering a Ricardian model setting, where countries have not yet opened up to trade. Two goods are produced exclusively by domestic labor supplies, sacks of coffee and sugar.

Home and foreign maintain the following marginal productivities of labor (MPL) in producing products. The two countries labor pools $\bar{L} = 35$ are equal, meaning no differences in labor endowment.

MPL	Coffee	Sugar
Home	10	6
Foreign	12	9

Consider the autarky scenario where countries do not exchange goods. Complete the following questions to obtain the two countries consumption and production equilibria.

1) Which country has comparative advantage in producing sugar?

2) What are the max quantities of each good that Home and Foreign can produce?

Max Output	Coffee	Sugar
Home		
Foreign		

3) Sketch the PPFs of Home and Foreign in a single graph, given max output levels. Be sure to correctly label the graph for full points.

- 4) Suppose Home prefers consuming 8 sacks of coffee for every sack of sugar consumed. Calculate the consumption bundle of Home and sketch it on a PPF graph.

5) Suppose Foreign prefers consuming 5 sacks of coffee for every sack of sugar consumed. Calculate the consumption bundle of Foreign and sketch it on a PPF graph.

6) Consider a shock to the economy where Home suddenly becomes more productive at making sugar. Do comparative advantages change for a case in which $MPL_{\text{Sugar}}^H = 8$? How does Home's production/consumption bundle of coffee and sugar sacks change?

Q3. Suppose we are considering a Ricardian model setting, where countries have not yet opened up to trade. Two goods are produced exclusively by domestic labor supplies, pint glasses and kegs of Guinness.

Home and foreign maintain the following marginal productivities of labor (MPL) in producing products. The two countries labor pools $\bar{L} = 100$ are equal, meaning no differences in labor endowment.

MPL	Pint Glasses	Guinness
Home	7	9
Foreign	14	28

Consider the autarky scenario where countries do not exchange goods. Complete the following questions to obtain the two countries consumption and production equilibria.

- 1) Which country has comparative advantage in producing pint glasses?

2) What are the max quantities of each good that Home and Foreign can produce?

Max Output	Pint Glasses	Guinness
Home		
Foreign		

3) Sketch the PPFs of Home and Foreign in a single graph, given max output levels. Be sure to correctly label the graph for full points.

- 4) Suppose Home prefers using 3 pint glasses for every keg of Guinness consumed. Calculate the consumption bundle of Home and sketch it on a PPF graph.

- 5) Suppose Foreign tends to break glasses more frequently, leading them to consume 14 pint glasses per keg consumed. Calculate the consumption bundle of Foreign and sketch it on a PPF graph.
- 6) Consider a migrant boom occurs at home, where the workforce becomes $\bar{L} = 120$. Do comparative advantages change for either country? How does Home's production bundle change?