ECON 664: Issues in International Trade
Problem Set 3
Due: December 13, 2023 at 11:59 pm

Instructions: *You may work with up to one other student on this assignment.* If you do work in a pair, please make sure both names are listed on the assignment, and only turn in one copy. **Make sure to explain your results — answers with no explanation will be given little to no credit. Please mark your answers to each question clearly.**

True/False/Uncertain

Determine whether the following statements are TRUE, FALSE, or UNCERTAIN, and **justify your answer** in a short paragraph. Please be concise. *You must explain your answers to recieve credit. A "TRUE/-FALSE/UNCERTAIN" answer that is not accompanied by an explanation will recieve 0 points.*

1. (5 points) The world price of bananas under free trade is 50 cents. A country is considering imposing a tariff of 50 percent on bananas to protect its domestic industry. If the policy is enacted, the price of bananas will increase from 50 cents to 75 cents.

2. (5 points) An excellent way to reduce unemployment is to enact tariffs on imported goods.

3. (5 points) Automobile manufacturing jobs are heading to Mexico because wages are so much lower there than they are in the United States. As a result, we should implement tariffs on automobiles equal to the difference between U.S. and Mexican wage rates.

4. (5 points) Tariffs have a more negative effect on welfare in large countries than in small countries.

Short Answer

1. (5 points) What is "trade diversion?" Is it more likely to happen in the face of unilateral trade policy or multilateral trade policy?

2. (5 points) What is the "pollution haven" hypothesis? Give a real world example and describe a potential policy tool that could address this problem.

3. (5 points) Read the *New York Times* article entitled "How Russia's Rich Get Their Luxuries Now" (uploaded on Canvas). Discuss the article, and using specific examples from the article, relate it to what we have talked about in class.

Quantitative Problem

1. (5 points) Home's demand curve for wheat is:

$$D = 100 - 20P$$

It's supply curve is:

$$S = 20 + 20P$$

Derive and graph Home's *import demand schedule*. What would the price of wheat be in the absence of trade?

2. (5 points) Now add Foreign, which has a demand curve:

$$D^* = 80 - 20P$$

and a supply curve:

$$S^* = 40 + 20P$$

Derive and graph Foreign's *export supply curve* and find the price of wheat that would prevail in Foreign in the absence of trade.

3. (5 points) Now allow Foreign and Home to trade with each other, at zero transportation cost. Find and graph the equilibrium under free trade. What is the world price? What is the volume of trade?

4. Now suppose that Home imposes a specific tariff of 0.5 on wheat imports.

   (a) (5 points) Determine and graph the effects of the tariff on the following: (1) the price of wheat in each country; (2) the quantity of wheat in each country; and (2) the quantity of wheat supplied and demanded in each country; (3) the volume of trade.

   (b) (5 points) Determine the effect of the tariff on the welfare of each of the following groups: (1) Home import-competing producers; (2) Home consumers; (3) the Home government.

   (c) (5 points) Show graphically and calculate the terms of trade gain, the efficiency loss, and the total effect on welfare of the tariff.

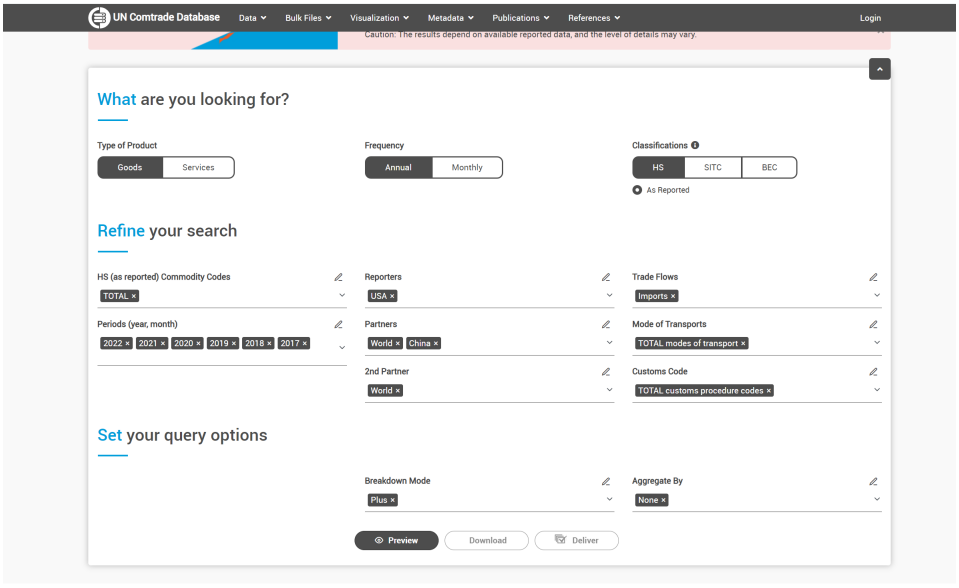
Data Exercise

In this data exercise, your job is to explore whether U.S. imports from China has decreased in response to the 2018 Trade War. The goal of this exercise is to practice downloading trade data and interpreting results. That said, if you prefer to make your graphs in Excel, I don't mind. If you want to challenge yourself, try to do this in Stata or R.

Steps:

1. Go to the website `https://comtradeplus.un.org/TradeFlow`.

2. First, download data on **total imports into the United States from China** and **total imports into the United States from the World** in the **years 2017-2022**. You will do this by setting the parameters on the website to match the picture below:



3. (10 points) Next, make a plot of U.S. imports from China and U.S. imports from the rest of the world. This graph should have two lines, and you should **index the series to be equal to 1 in 2017**—the year before the trade war started. (Do this by dividing both series by their values in 2017). Intepret the result – how have imports from China changed since 2017? How about imports from the rest of the world? Do you see any effects of the trade war? Can we interpret this evidence as being causal?

4. (20 points) Repeat Steps 2 and 3, but this time, instead of downloading data for **TOTAL** imports, pick **two 6-digit commodities** of your choice. If you start typing in the box that says **HS (as reported) Commodity Codes**, you'll see a dropdown menu come up. If you want to find the HS code for a particular product you can search for it here: `https://www.foreign-trade.com/reference/hscode.htm`. You should end up with two graphs, one for each HS6 code, each of which have two lines (one for imports from China and one for imports from the world). Interpret the results as you did in question 3.

   Hint: If you want to see which products actually faced tariffs against China, you may consult this list: `https://hts.usitc.gov/reststop/file?release=currentRelease&filename=China%20Tariffs`. Note these show which HS-8 digit products were covered. Your data will have only HS6 digit products. You should simply look at the first 6 digits of each HS8 digit product to see if your product was hit by tariffs or not.