Trade Project 1 Guideline

-You will use the World Input Output Database (WIOD) - see Stehrer, de Vries, Los, Dietzenbacher, and Timmer (2014) for more details. You can use the year 2011 of the old release `http://www.wiod.org/release13` - follow the link "Input-Output Tables" and use the file "WIOT 2011". See the Stata code to *partially clean* and reshape the data. It should work with the old release. You will also need the WIOD Socio Economic Accounts database.

-The first objective is to implement a multi-sector version of the Eaton and Kortum (2002) model, please see Costinot, Donaldson, and Komunjer (2012). As in Costinot et al., you can assume that labor is the only factor of production and is mobile across sectors.

-The second objective is to assess the global welfare effects of the tariff hike under Trump's second administration. Note that you will need to introduce tariffs in the model - see Eaton and Kortum (2002).

- *Hint 1* Find the technology parameters as in Costinot, Donaldson, and Komunjer (2012) (see sub-section 5.1) and use the trade elasticity they estimate (see their Table 3). You will have to run one regression using bilateral trade flows.

- *Hint 2* You may want to assume that trade shares in the baseline economy (in the model) are equal to the ones observed in the data (as well as consumption shares over sectors per country), and find the wages that guarantee balanced trade (remember to normalize something).

- *Hint 3* Given the previous steps, how would you find trade costs (don't worry about the triangular inequality)? Are they country-sector specific? Are trade costs always greater than one? If not, how can you interpret this result?

  How is the fit of your model? For example, is GDP per capita in the model correlated to the one in the data?

  Obs: Instead of following hints 2 and 3, you can follow an alternative (and more precise) path and calibrate trade costs and wages in the baseline economy such that trade shares are as close as possible to the observed ones and trade is balanced. But this is harder to implement.

References

Costinot, A., D. Donaldson, and I. Komunjer (2012): "What Goods Do Countries Trade? A Quantitative Exploration of Ricardo's Ideas," *Review of Economic Studies*, 79(2), 581–608.

Eaton, J., and S. Kortum (2002): "Technology, Geography, and Trade," *Econometrica*, 70(5), 1741–1779.

Stehrer, R., G. J. de Vries, B. Los, H. Dietzenbacher, and M. Timmer (2014): "The World Input-Output Database: Content, Concepts and Applications," Discussion paper.