Empirical Exercise 1: Trade imbalances per capita

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Instructor:	Marc-Andreas Muendler	muendler@ucsd.edu
Teaching Assistant:	Jacob Orchard	jdorchard@ucsd.edu

Due date and time: **October 12, 5pm**

Inputs and products

Please use Stata (any version) for your work. Please base your analysis on the following files

ITPD-E by UTIC	`itpd.dta`
WDI by World Bank	`wdi-2020sep30.dta`
Coordinates by *naturalearthdata.com*	`ne_110m_admin_0_countries_coor_2020sep30.dta`
Geocoding by *naturalearthdata.com*	`ne_110m_admin_0_countries_data_2020sep30.dta`

in the online data folder at `https://econ.ucsd.edu/muendler/teach/20f/435/gen`.

You may find the code from lecture a useful reference: `lec01.do` in the online lecture folder `https://econ.ucsd.edu/muendler/teach/20f/435/lec01`.

Please submit three products to `canvas.ucsd.edu` by the due time: (i) a file with results titled *ee01.pdf*, (ii) a log file titled *ee01.log*, and (iii) a Stata code file titled *ee01.do* (which may call other software). **Your log file must exhaustively document the steps from the above input files to the output of results.**

Tasks

1. Preliminaries.

   (a) Use the ITPD-E data to compute each country's trade balance in 2016 (the trade balance is exports less imports).
   Hint: Prepare ITPD export and import information separately, then merge the data at the country level one-to-one. Alternatively, aggregate ITPD-E separately by exporter and importer (using the Stata `egen · = sum(·), by(·)` command)..

   (b) Use the WDI data to obtain population and GDP in 2016.
   Hint: The GDP series is NY.GDP.MKTP.CD, the population series SP.POP.TOTL.

   (c) Combine the WDI information with the ITPD-E information.

2. Graph.

   - Plot two world maps of levels of positive and negative trade balances (in billions of current US$ dollars) in 2016, one in reds for all countries with trade deficits and one in greens for all countries with trade surpluses.
   Hint: Use the Stata `spmap` package as shown in *lec01.do*. Set the options to `fcolor(Reds)` or `fcolor(Greens)` and consider logarithmic break points for the legend, marking `0 1 10 100`, and so forth in `clbreaks(·)` (and make sure to extend the series to cover the maximum).

3. Report.

   - Compute the trade balance per capita and list the three countries with the largest surplus per capita and the three countries with the largest deficit per capita in 2016.