Public Sector Economics

Practical assignment

March 2021

The main task is to produce a plot on the national relationship between taxing revenue and GDP per capita, using R.

Grade weight:	Part of the 20% total grade for class activities
Delivery on:	Campus Virtual
Due date:	March 10th 2021, 23:59 Central European Time (CET)
Required outcomes:	(1) Script: (a) named as your-NIU_script.R (i.e. 1512345_script.R) (2) Datasets (3) Plot: (a) PNG format, (b) 1000 × 639 pixels, (c) named as your-NIU_plot.png (i.e. 1512345_plot.png)

Sources:

The data source is the World Bank's data. Variables for the analysis will be:

- Taxing revenue as share of GDP (ID: GC.TAX.TOTL.GD.ZS)
- GDP per capita in current U.S. dollars (ID: NY.GDP.PCAP.CD)

Data Analysis:

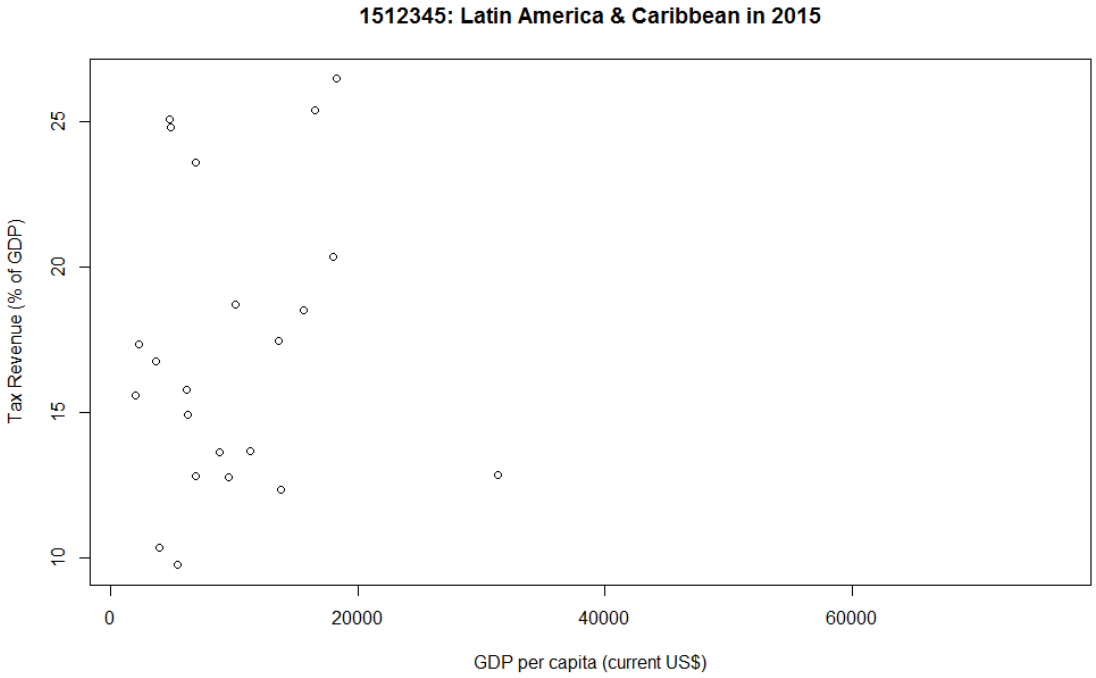
The data to analyze will depend on **your NIU number**.
You will only work with countries in one region and in one year:

- Year: 201X, being X the last digit of your NIU
  - *Example: your NIU is 151234**5**, you plot data from 201**5***
- Region based on your second NIU number:
  - **3**: data from Sub-Saharan Africa
  - **4**: data from Europe & Central Asia
  - **5**: data from Latin America & Caribbean
  - not 3,4,5: data from East Asia & Pacific
  - *Example: your NIU is 1**5**12345, you plot data from Latin America & Caribbean*

Expected outcome:

A scatter plot depicting GDP per capita on the x-axis and taxing revenue on the y-axis. You have to label both axis, and title with following format: "NIU number: Region in Year". *Example: "1512345: Latin America & Caribbean in 2015"*

Figure 1: Example



Tips:

You may not achieve all objectives. Try to deliver as much as you can.
You are expected to:

- Download the datasets
- Import the datasets into R
  - Datasets from WB are in .xls format!
  - You will need to specify sheet and range to import correctly
  - You have region classification in the sheet "Metadata - Countries"
- Keep the year requested
- Merge the datasets and keep the region you want
- Plot the observations
- **Bonus point:** You achieve this without editing the Excel file