Homework Assignment 2

Deadline: March 6, midnight

Source: Stock and Watson, 4th Edition, Exercise 4.1

Data description: You can find the data description here.

Questions

a. Construct a scatterplot of `growth` and `tradesshare` with a regression line fit on the top.

b. Look at the data set and find Malta on your graph. Why is Malta an outlier?

c. Using all the observations run a regression of `growth` on `tradeshare`. Interpret the intercept and the slope. Predict the growth rate for a country with a trade share of 0.5 and another with a trade share equal to 1.

d. Estimate the regression without Malta and interpret the coefficients. Should Malta be excluded from the regression? Briefly comment.

Header for the R script

Start a new R script, copy/paste the header below and save it to `Dropbox\EC282\Assignment2` or a similar path that you created for this homework assignment. Run the R script and make sure that you have the data `df1` in your environment. Conduct the analysis below the header.

```
################################################################################
# list the packages we need and loads them, installs them automatically if we don't have them
# add any package that you need to the list
need <- c('glue', 'dplyr','readxl', 'ggplot2','tidyr','AER','scales','mvtnorm',
          'stargazer','httr', 'repmis')

have <- need %in% rownames(installed.packages())
if(any(!have)) install.packages(need[!have])
invisible(lapply(need, library, character.only=T))

# Save the R script to the assignment 1 folder before this
# To set up the working directory
getwd()
setwd(getwd()) #change getwd() here is you need to set a different working directory


#this clears the workspace
rm(list = ls())
#this sets the random number generator seed to my birthday for replication

options(scipen=999)
################################################################################
#get the data url
df1.url <- 'https://www.dropbox.com/s/lbk73b0amzfj8px/Growth.xlsx?dl=1'
#download the data
GET(df1.url, write_disk(tdf <- tempfile(fileext = ".xlsx")))
#check if it worked

df1 <- read_excel(tdf) %>%
  mutate(growth = growth + rnorm(length(growth))/5)
```

```
head(df1)

#CONDUCT THE ANALYSIS BELOW
```