

ASSIGNMENT 3

The goal of this assignment is to look more carefully at your country's growth trajectory in TFR and e_0 space (Livi-Bacci's 'space of growth') and relate that trajectory to development indicators. Specifically, you will explore a series of bivariate relationships of the form $\rho(\text{TFR}, D)$ and $\rho(e_0, D)$ where $\rho(*)$ indicates correlation and D is a set of development indicators. For this assignment you will need to download two spreadsheets from the course website. One spreadsheet contains general formulas and graphics and the other contains data for your country. Each person or team should download the data spreadsheet for their country.

I. The space of growth

1. Go to the "Space of Growth" page in the spreadsheet. Locate the observation for your country in each of the three graphs and change its symbol to a red diamond with size set to 7. The supplemental notes for assignment 3 (on the website) explain how to change the symbol size, color, and shape. Print the three graphs on a single page. Where is your country located relative to the other countries and how does its position change over the three historical periods relative to its initial position and relative to other countries?
2. Go to the "Country (e_0 , TFR) Trajectory" page in the spreadsheet. Paste data into the yellow highlighted cells as indicated on that page. After pasting your country's e_0 and TFR the graph will show the trajectory for your country. Print the graph and label each observation with a year using a pencil. Does the your country's trajectory through the 'space of growth' suggest any research directions for your country report?

II. Demo-economic interactions

In this section you will look at scatterplots and correlation coefficients for development indicators (D) and (TFR , e_0). The spreadsheet pages labeled "(e_0 , TFR), development corr" and "Correlation matrix" are included to assist in selecting development indicators. The former also includes descriptions for the variable codes.

3. Go to the spreadsheet page labeled "(e_0 , D) scatterplots". Copy and paste data from the page "avg. development indicators" to produce scatterplots. Make and print at least three plots for development indicators that you think may be important for explaining e_0 trends in your country.
4. Use the "development trends" page to plot time series for the three, or more, indicators you chose to print for 3. You will need to copy and paste the trend data from your country spreadsheet. Reflect on how the changes in the indicators will impact e_0 .
5. Do the activities required for questions 3 and 4 using TFR instead of e_0 .

III. Reporting

6. Organize all of your graphs and notes from questions 1-5 in your three-ring binder. Make sure that all of the graphs are clearly labeled. If the graph shows a plot of TFR and GDP per capita, then the graph should be labeled as such. Write three or more pages that synthesize the information from questions 1-5. The essay should discuss the *space of growth* and use development indicators to understand changes in both TFR and e_0 for your country. The discussion of the graphs should be integrated into the essay and the graphs should be referred to by number, e.g. (see Figure 3).

For the second progress report we will look for the following: (a) graphs from this assignment, (b) essay from this assignment, and (c) an activity log cover sheet that lists any changes to other parts of the country report since first progress report 1.