

ECO465: Econometrics
Summer 2019 / Assignment 2

NOTES: Must be typed. This is an individual assignment.
DEADLINE: June 16, 2009 at 3 pm.

The Excel file `bgd_data_un.xlsx` contains annual time series data for selected macroeconomic variables of Bangladesh. After importing the data in Stata, use Stata to carry out the following work. All data are in real terms (inflation adjusted in 2010 prices) and are expressed in billion Taka.

1. Consider the identity: $Y = C + I + G + X - M$
 - a) Plot the variables in the identity in one single graph (use the `-tsline-` command). What is the single most observation you can draw from the plot?
 - b) Summarize the variables in the identity (use the `-sum-` command). What are the two most important observations you can draw from the descriptive statistics?
2. Calculate annual GDP growth rate (in %). Compute the mean and standard deviation of GDP growth rate (you can use the `-sum-` command) by decades (1971-1980, 1981-1990, 1991-2000, 2001-2010, 2011-2017). What is your assessment on the variations of GDP growth rates over the past five decades (in comparison with the overall growth rate 1971-2017)?
3. Compute the share of agriculture, manufacturing, and service sectors to GDP. Don't worry if the shares do not sum to 100%. Plot (use `tsline`) the sectoral shares in one single graph. What do you see?
4. Compute annual growth rate (in %) for exports and imports. Now using the `-correlate-` command in Stata, calculate the correlation matrix among the growth rates of exports, imports, and GDP. Comment on the finding.