

MACROECONOMICS Project PGPEM 2nd Term Sept-November 2021.

This Question is from the Group Project assignment during September-November 2021 term. Parts (d) and (e) are advanced questions for those willing and able to go beyond the basic text.

(1) From Handbook of Statistics on Indian Economy (HOSIE) database as of September 2021(see attached spreadsheet), based on annual real GDP data at market price in Rs. (K) Crs.

a) For 1994-95, to 2018-19, calculate the potential GDP growth rate using these three methods:

(i) simple average

(ii) connecting first and last point and

(iii) estimating time trend i.e. regress and fit the log linear trend line (ref. pg.35 EGI- 3rd para).

(You should have learnt how to fit a regression line in Quantitative Methods course. In any case you can do it using basic Excel commands that you can Google to find out).

b) Based on your estimate from (iii) above, what is your estimated potential GDP level for 2019-20 and 2020-21, and the corresponding aftOR values? If you are unable to estimate (iii) as asked above, use method (i) simple average to get your estimate potential GDP growth rate.

c) Based on your estimated values, plot following 3 charts corresponding to those on Pg 28 EGI:

(i) Log of Actual and your Estimated Potential GDP (a full page landscape Chart)

(ii) Growth Rate of Actual and Potential GDP and

(iii) adjusted for trend Output Ratio or aftOR calculated from c (i)

Plot (ii) and (iii) in Portrait on the same page to compare them easily.

d) For Q1 2021-22 (Apr-June), Real GDP was reported as Rs.(K) 12952.1 Crs. (nsa) and growth 20.1% y-o-y. Without any seasonally adjusted quarterly data, how best would you estimate:

(i) Potential GDP and thereby

ii) The output ratio for the latest Apr- June period i.e. Q12021-22? Specify any assumption and/or proxy value used in this calculation.

e) Is the calculated aftOR in sync with the growth rate for this Q1? Explain

Attach the relevant spreadsheet values that provides the basis for your answers.