B.E. International Program

Faculty of Economics, Thammasat University

Semester: 1/2011
EE 312 Macroeconomics Theory
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Homework # 1

1. Explain the meaning of the following macroeconomic variables.
    a. Nominal and Real Gross Domestic Product
    b. Nominal and Real Gross National Product
    c. The GDP deflator
    d. The Consumer Price Index (CPI)
    e. The Unemployment Rate
    f. Nominal and Real GNP per capita

2. Obtain data during 1988-2009 for the variables in (1) from the following websites: www.nesdb.go.th; www.bot.or.th; www.nso.go.th
    a. Provide a table for their observations and plot them against time.
    b. Calculate the growth rate of the economy and plot it. Offer your observation on its time path.
    c. Calculate the inflation rate from CPI and plot it against unemployment rate. Offer your observation on the relationship between the two variables.
    d. Plot real GNP per capita and offer your observation. Do you think everyone in the country has improved their standard of living? Why or why not?
    e. Find data for components of aggregate expenditure (C, I, G, X, M) in nominal and real terms. Calculate their share in GDP and comment on their trend during 1988-2009.

3. Suppose that for a particular economy, we have the following equations.

$$
\begin{aligned}
C &= 25+0.8Y^d \\
I &= 100 \\
G &= 75 \\
T &= 100 \\
Y^d &= Y-T
\end{aligned}
$$

    a. Find the level of equilibrium income from
    (i) $Y = C + I + G$ or (ii) $I + G = S+T$

    b. Draw the corresponding IS curve (combinations of income (Y) and interest rate (r) that produce equilibrium in the product market).

    c. Suppose G was increased by 10 units and this increase is matched by the 10 units increase in T. Would equilibrium income change or remain the same as a result of these two policy actions? If equilibrium income changed, in which direction would it move and by how much? Explain.