
Exercises based on Macroeconomic Model

- I. Using the One Year Model, build a Simple Macroeconomic Model for an economy with a GDP of \$10,400 Billions [Remember: Econ 101 Rule applies for building such an economy]. Copy the above exogenous and parameter values for the simulation. Do a Constant Growth Money Supply Experiment, with a constant growth of 5%. Print and explain the following two “Simulation Property Graphs” after doing the experiment:
 - a. GDP vs. GDP Potential
 - b. Money Supply Growth vs. Inflation

- II. *Oil Price Shock Experiment*: Using the original One Year base economic model (GDP = \$7000 Billions), give the economy an Oil Price Shock. Decide which exogenous variables, if changed and by how much, would mean an Oil Price Shock. Defend your reasoning. [Remember: Econ 101 Rule applies for building such an economy]. Copy the above exogenous and parameter values for the simulation, and run it. *Print the results page* (the one which has the values for the new economy with Oil Price Shock) and the base case for historical, short-run and long-run.

- III. Using the One Year Model, build a Realistic Macroeconomic Model for an economy with a GDP of \$10,400 Billions [Remember: (a) Econ 101 Rule applies for building such an economy (b) Realistic Macroeconomic Model is the economy in which both the Trade Deficit and Fiscal Deficit would be negative numbers in \$350 to \$550 billion range]. Print the results of the One Year Model on a sheet of paper which shows the values of exogenous, endogenous and parameter values for your answer.

HINTS:

1. Whenever building a new one year model, start out with bringing the GDP@FULL and GDP@ROW to the desired GDP level.
2. Money Supply is a lever for inflation. They are directly proportional.
3. Check the Macroeconomic Model Guide to understand the various relationships between exogenous and endogenous variables to decide which variables if changed would help apply the Econ 101 rule.
4. For the Realistic Macroeconomic Model, besides changing the exogenous variables you might need to change some parameter values also to get the desired results.