

## EXERCISE 1: INDIVIDUAL (15 Points Total)

L. Tesfatsion

DUE: Friday, September 1, 2017, 12:10pm (start of class). Econ 502/Fall 2017

**CAUTION:** Late assignments will not be accepted – no exceptions.

### \*INITIAL COUNTRY ASSIGNMENTS (SUBJECT TO VOLUNTARY TRADES)\*:

(1) Ashley Garrard (garrard@iastate.edu): South Africa ; (2) Kevyn Hoyos (kahoyos@iastate.edu): India ; (3) Paul Pelech (pelech@iastate.edu): France ; (4) Chris Pudenz (ccpudenz@iastate.edu): Mexico ; (5) Kyubin Yim (kyubin48@iastate.edu): Indonesia .

**Important Note 1:** You can undertake voluntary trades among yourselves with regard to the above country assignments, but the listed five countries must remain the five assigned countries. Please report the outcomes of any country trades to the instructor as soon as possible *before* the exercise due date.

**Important Note 2:** Please strive to provide answers that are both *complete* (all parts covered) and *as well supported as possible* (with citations to supporting materials). References for supporting materials should be provided in a Reference List numbered as [1], [2], ..., that appears at the end of your answers. References in the Reference List should include authors, report/article/book titles, publishers, date of publication, page numbers, and/or website links as appropriate. Citations to these references in the main text of your answers should be indicated by use of the appropriate reference number [1], [2], ..., at the point of the citation.

**Important Note 3:** Please be sure to make an **EXTRA** copy of your exercise to bring to class on the due date for use in class discussion after you turn in your exercise.

## Construction of Macroeconomic States

### Background Materials (For Reference If Needed):

- **GDP-Related Terms and Concepts** (Notes by L. Tesfatsion)  
<http://www.econ.iastate.edu/classes/econ302/tesfatsion/bht2.htm>
- **Price, Employment, and Productivity Terms and Concepts** (Notes by L. Tesfatsion)  
<http://www.econ.iastate.edu/classes/econ302/tesfatsion/bht3.htm>
- Any of the various **intermediate macroeconomic textbooks** listed on the Econ 502 syllabus (Abel/Bernanke, Barro, Hall/Taylor, Peterson/Estenson) can be used to review basic macroeconomic terms and concepts.
- **General Resources for Macroeconomics and Financial Economics**, Available on-line at <http://www.econ.iastate.edu/tesfatsi/sources.htm> . This website provides an annotated list of pointers to a wide variety of online resource materials focusing on empirical macroeconomic data, macroeconomic theory and macroeconomic policy.

A key task facing central government policy-makers is the determination of macroeconomic policies that enhance the welfare of their citizens. Macroeconomic policy-makers typically determine policies conditional on the *state of the macroeconomy* – that is, conditional on a description of current attributes of the macroeconomy that are perceived to be critically important for the particular macroeconomic policy purpose at hand. Suppose you are currently working as an economic consultant for the central government of *your assigned country*, tasked with helping to determine macroeconomic policies that best enhance the welfare of the current and future citizens of this country. Please answer the following two questions.

**QUESTION 1: [10 Points]** Using the *latest available data (from 2017 if available)*, report as best you can *quantitative values* for the following attributes for your assigned country. Include (if possible) a brief explanation of how each attribute was actually measured, and provide citations/references for all data and other supporting materials used in your answer.

1. Per-capita real GDP (Note: GDP = Gross Domestic Product)
2. Growth rate of real GDP
3. Inflation rate
4. Unemployment rate
5. Investment as a percentage of GDP
6. Distribution of income
7. Population health and longevity, as measured by life expectancy at birth
8. Knowledge and education, as measured by expected years of schooling for children of school-entering age
9. National government debt as a percentage of GDP
10. Environmental conditions, proxied either by clean air or by clean water availability

**QUESTION 2: [5 Points Total]** Suppose you are asked to report the *current macroeconomic state of your assigned country* using what you consider to be the most important **FOUR** attributes from the list of ten attributes given in Question 1. The purpose of your report is to help central government policy makers ensure the welfare of current and future citizens of your assigned country.

- (a) (1 Point) Explain carefully *which four attributes* from Question 1 you would choose for your report.
- (b) (4 Points) Explain carefully *why you chose these four attributes* (in preference to the remaining six attributes listed in Question 1) as the most important four attributes to include in your assigned country report.