

Instructions

1. This exam is take-home, open-book, and open-notes. You may use any class materials at your disposal in preparing your answers.
 2. You may not communicate in any way with anyone other than the instructor about the exam or the questions. It is to be done strictly on an individual basis.
 3. The exam is due at 9am on Wednesday, December 14.
 4. You are responsible for making sure that you understand each question clearly. In case of any ambiguity, be sure to consult the instructor.
-
-

1. You have been consulted by the honorable Para Boola, who is the newly appointed finance minister of Lower Quadratica, a poor country located on an archipelago in the Southwest Pacific. Mr. Boola is interested in learning what kinds of changes in policies are most likely to encourage per-capita GDP growth in L.Q. "In 100 years, I want our descendants to be as wealthy as our neighbors in Australia," he says. He has several specific questions for you:

- ❖ Based on the empirical evidence, what are the major determinants of a country's per-capita growth rate?
- ❖ Among these determinants, which are amenable to the influence of government policies and how?
- ❖ To what extent are these empirical results consistent with the predictions of widely accepted growth theories?

Write a short memo (no more than 2 double-spaced pages) to Mr. Boola responding to his questions.

2. We did not have time during class to read and discuss the variants of the Schumpeterian model presented in Aghion and Howitt's *Endogenous Growth Theory* text. We will atone to some degree for this by including it on the final exam. Read Chapter 2 of this text, which presents the basic form of their Schumpeterian model (we'll call it AH-2), and answer the following questions relating their model to those we studied in class.
 - a. Which of the models in Barro and Sala-i-Martin (B & S-i-M) is most similar to AH-2? Why?
 - b. The utility function on the first page of Chapter 2 appears quite different from those in B & S-i-M. What assumptions are necessary for the B & S-i-M utility function to be written in this way?

- c. The expression $r + \lambda n$ plays an important role in the AH-2 model. What is the interpretation of this expression? How is it derived? What analogous expressions have we used in B & S-i-M's models?
- d. The steady-state equilibrium of the AH-2 model is characterized by equations (A) and (L) on page 57 (or transformations of them). What equations in the corresponding B & S-i-M model most closely correspond to them? Explain how they are similar and different in derivation and use.
- e. Compare the conclusions of the AH-2 model to those of the corresponding B & S-i-M model. If there are significant differences, what are the differences in assumptions or analysis that lead to these differences in conclusions?

3. (Preparation for in-class final.) One frequently hears assertions by Reed students that capitalist growth benefits only the rich members of growing countries and not those at the bottom of the income distribution. One recent paper looking at the effects of growth on the poorest members of society finds a different conclusion. In preparation for the in-class final, read David Dollar and Aart Kraay, "Growth is Good for the Poor," *Journal of Economic Growth* 7 (3), September 2002, 195-225 (available online through Reed Library). The in-class final exam will include at least one question relating to this paper. You may bring an annotated copy of the paper for use during the exam and you may discuss the paper with your peers prior to the in-class exam session.