

In-class Exercise: Malthusian and Solow Growth Models

Directions: Work in groups of up to four people and answer the following questions. All papers will be collected, but only one member’s paper will be randomly selected and graded and all members of the group will receive the same grade.

By signing below, you agree that the following work represents the efforts of everyone in the group, and you are willing to accept as your own grade for the group project the grade earned from this representation of your group’s work.

_____ Signature Group Member 1	_____ Print Name	_____ Date
_____ Signature Group Member 2	_____ Print Name	_____ Date
_____ Signature Group Member 3	_____ Print Name	_____ Date
_____ Signature Group Member 4	_____ Print Name	_____ Date

1. Describe and illustrate how each of the following affects short-run and long-run consumption per worker and population size. For each of these variables, show a time graph that illustrates the immediate effect of the change and the transition to the long-run outcome.

(a) There is an improvement in agricultural technology.

(b) There is an improvement in health and nutrition.

(c) There is an increase in land to be used for agriculture.

2. Describe and illustrate how each of the following affects long-run capital per worker and long-run output per worker in a Solow growth model.

(a) There is an improvement in communication technology that makes workers more productive.

(b) There is a decrease in the average number of children that people have.

(c) There is a decrease in average national saving rate.

3. Someone suggests that government policy to encourages people to save more money would be beneficial to our long-run standard of living. Use the Solow growth model to comment on that claim.

4. Describe economic growth facts that the Malthusian model predicts well.

5. Describe economic growth facts that the Solow model predicts well.