

ECO 305: Intermediate Macroeconomics
In-class Exercise: Practice Exam 2

Your Name: _____

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. Answer the following questions in the context of a Solow growth model. Describe and illustrate the following for each scenario:

- The impact on the steady state level of capital per worker and output per worker
 - A time graph illustrating the immediate impact of the scenario and the transition to the new steady state.
- (a) Suppose people's spending behavior changes which results in a lower average savings rate. Describe and illustrate the long-run impact on output per worker.
- (b) Governments give grants (money) to encourage companies to engage in cooperative research and development activities. Describe and illustrate the long-run impact given some of these research activities will be successful, and given the increase in government spending. Do you think this policy is a good one? Use your analysis to support your conclusion.
- (c) Suppose people's preferences change to start having children later in life and fewer children. Describe and illustrate the long-run impact on output per worker.

2. The ratio of government debt to GDP in Japan is the largest in the world at approximately 245%. A recent report from the International Monetary Fund (IMF) concluded that Japan's debt is unsustainable under current policies, and that it should put its debt to GDP ratio on a downward path.

(a) Discuss what the IMF's conclusions imply about Japan's fiscal policies in relation to other macroeconomic variables.

(b) Is it sustainable for government of a country borrow every period forever, never running surpluses to pay down balances? Discuss why or why not. If this is possible, discuss how so.

3. Suppose the government enacts tax cuts in the current period that will be offset with credible and equal (in the present value sense) cuts in future government spending. In the context of a dynamic general equilibrium model, describe and illustrate the equilibrium effects on wages, employment, production, interest rates, consumption, and investment.

4. Answer the following questions concerning Ricardian equivalence:

- (a) What is it? Describe in the context of a cut in taxes and use equations and/or a diagrams in your answer.
- (b) Describe four of the assumptions required for Ricardian equivalence to hold.
- (c) The assumptions for Ricardian equivalence never hold. Is Ricardian equivalence a useful economic theory? Why or why not?

5. Suppose there is a decrease in the real interest rate. Answer the following questions regarding consumer's responses in the context of a two-period endowment model.

(a) Describe and illustrate the impact on current consumption, saving, and future consumption for a consumer that is a saver.

(b) Describe and illustrate the impact on current consumption, saving, and future consumption for a consumer that is a borrower.

(c) Which effect on current consumption in (a) and (b) is larger? Explain intuitively why this is so.