ECO 120: Macroeconomics **Your Name:** ____________________________

In-class Exercise

Expenditure Multiplier **Section (Circle One):** **7:45-9:10AM** **9:25-10:50AM**

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. Suppose there is a Federal tax rebate that totals \$100bn for U.S. consumers, in which each full-time working American receives a check for \$500. Suppose the typical person puts \$100 of this money towards their savings accounts or paying towards existing debts. They spend the rest of this, including approximately \$50 on imported goods. Compute the immediate change in real GDP.

2. Suppose the economy is in recession with high unemployment. Economists have estimated that an increase in real GDP equal to \$600 billion will move unemployment down to the natural rate. The United States Congress and the President wish to pass a stimulus bill that will achieve this. In the last stimulus bill, each full-time working American received \$200, and it was found on average that Americans spent \$20 paying down debt or adding to saving and spent \$30 on imported goods.

   (a) Suppose Congress is considering an infrastructure spending bill. How large should the increase in spending be to achieve the target change in real GDP?

   (b) Suppose Congress is considering a tax rebate bill. How large should the tax rebate be to achieve the target change in real GDP?

3. Recently, financial investors around the world have speculated that investment in Chinese stocks and bonds will be less profitable. Suppose also if income were to increase by \$1 in the United States, savings would rise by \$0.05 and imports would rise by \$0.20.

   (a) Describe and illustrate the impact of the change in expectations on the U.S. dollar / Chinese Yuan exchange rate.

   (b) All other things remaining the same, will U.S. exports to China increase, decrease, or stay the same? Will U.S. imports from China increase, decrease or stay the same. Explain.

   (c) Suppose in response to the change in the value of the Yuan, the initial change in U.S. exports is \$10 billion and the initial change in U.S. imports is \$15 billion (you should know whether each of these is an increase or decrease). What will be the immediate impact on real GDP?

4. What happens to the multiplier if the marginal propensity to save increases from 5% to 10% (assume MPM=0). Which MPS gives the government greater power to influence GDP? Does this imply that the government should persuade people not to save? Think about this question in terms of the expenditure model and past models with a long-run outlook.

5. Suppose in a closed economy, the marginal propensity to save is 5%. Suppose the economy decides to remove its trade barriers and freely allow imports and exports. As a consequence the marginal propensity to import becomes 20%.

   (a) How does this effect the expenditure multiplier?

   (b) How does this change affect the ability of the government to fix recessions?

   (c) How does this affect the stability of GDP in the face of changes in aggregate expenditures?

   (d) Is opening up the economy a good thing or a bad thing? Explain.