

ECO 301: Money and Banking
In-class Exercise: Keynesian Model

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. Suppose in a country the marginal propensity to consume 90% and imports are unaffected by disposable income or real GDP. Suppose firms expect the price of oil to drastically increase next summer, which would increase the cost of transporting goods between factories and retailers, and ultimately hurt profits. Expecting this to happen, investment in the economy decreases by \$100 bn.

(a) Compute the immediate change in real GDP.

(b) Prescribe an open market operation monetary policy to conduct if the Fed is interested in quickly increasing production and employment.

(c) Prescribe an open market operation monetary policy to conduct if the Fed is interested in quickly stabilizing the price level.

2. Suppose the marginal propensity to consume is 95%, the marginal propensity to import is 10%, the percentage of deposits held in currency is 4%, the required reserve ratio is 3%, and banks keep an extra 7% of deposits in reserve, beyond the legal requirements. The economy is in a recession. Real GDP is \$5.5 trillion, and at full employment real GDP would be \$6 trillion. Suppose the Federal Reserve decides to immediately conduct open market operations to combat the recessionary gap.
- (a) What kind of open market operations should the Fed conduct? Describe and illustrate the impact on the market for money and on the aggregate expenditure model.
- (b) Compute the change in aggregate expenditures that the Federal Reserve should try to target with its policy. What components in aggregate expenditure change?
- (c) Suppose for every 25 basis points change in the Federal Funds rate, aggregate expenditure changes by \$25 billion. Compute the change in the federal funds rate that the Federal Reserve should target.

3. What happens to the multiplier if MPS increases from 5% to 10% (assume $MPM=0$). Which MPS gives the government greater power to influence GDP? Use the aggregate expenditure graph for each MPS to show the effect of an increase in government spending. Does this imply that the government should persuade people not to save?
4. 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 Federal Reserve to fix recessions?
 - (c) How does this affect the stability of GDP in the face of changes in expectations that influence investment.
 - (d) Is opening up the economy a good thing or a bad thing?