Prep Questions for Exam #2
ECON 3133
Dr. Keen

1. *A Model of Income Determination*: Use the following information to answer parts a – e where Y is aggregate income/output, Y^d is disposable income, C is consumption, I is investment, G is government spending, and (X – IM) is net exports.

$$Y = C + I + G + (X - IM)$$
$$Y^d = 0.75 \times Y$$
$$C = 300 + 0.85 \times Y^d$$
$$I = 550$$
$$G = 350$$
$$(X - IM) = 50 - 0.05 \times Y^d$$

   a. What is equilibrium output, consumption, and net exports for the given data?
   b. Calculate private savings, government savings and direct foreign investment.
   c. What change in government spending is required to increase equilibrium output by $500?
   d. Draw the income-spending graph for this model. Be sure to include equation, the intercept, the slope of the pending line, and the equilibrium level of output on the graph.

2. *The IS Curve Equation*: Use the information below for parts a – c.

Autonomous consumption	$80
Autonomous exports	380
Autonomous imports	30
Autonomous investment	920
Government spending	370
Interest sensitivity of exports	3,000
Interest sensitivity of imports	2,000
Interest sensitivity of investment	5,000
Marginal income tax rate	0.25
Marginal propensity to consume	0.88
Marginal propensity to import	0.12

   a. What are the consumption, investment, and net exports functions for the given data?
   b. Write the equation for the IS curve.
   c. Find the slope of the IS curve in part b.

3. *Deriving the IS Curve*: Use an income/spending graph and IS curve graph to show the short-run impact of an increase in the interest rate on output in the goods market. Include a brief explanation in your answer and be sure to properly label your graphs.

4. *Shifting the IS Curve*: Use an income/spending graph and IS curve graph to show the short-run impact of an increase in autonomous investment on output in the goods market. Include a brief explanation in your answer and be sure to properly label your graphs.

5. *Solving the IS-LM Model*: Use the information below for parts a – c.

Autonomous consumption	$88
Autonomous exports	1,000
Autonomous imports	766
Autonomous investment	1,490
Government spending	1,500
Interest sensitivity of exports	2,500
Interest sensitivity of imports	2,500
Interest sensitivity of investment	3,000
Interest sensitivity of money demand	20,000
Marginal income tax rate	0.20
Marginal propensity to consume	0.90
Marginal propensity to import	0.05
Money supply	13,500
Output sensitivity of money demand	1
Price level	1.5

   a. Find the equilibrium values of output and the interest rate.
   b. Calculate equilibrium consumption, investment, and net exports.
   c. Compute private savings, government savings, and direct foreign investment.

6. *Deriving the LM Curve*: Use a money demand/supply graph and LM curve graph to show the short-run impact of an increase in output on the interest rate in the money market. Include a brief explanation in your answer and be sure to properly label your graphs.

7. *Shifting the LM Curve (1)*: Use a money demand/supply graph and LM curve graph to show the short-run impact of an increase in the money supply on the interest rate in the money market. Include a brief explanation in your answer and be sure to properly label your graphs.

8. *Shifting the LM Curve (2)*: Use a money demand/supply graph and LM curve graph to show the short-run impact of an increase in the price level on the interest rate in the money market. Include a brief explanation in your answer and be sure to properly label your graphs.

9. *A Change in the Autonomous Consumption*: Suppose output is initially at its potential. Autonomous consumption then increases.

   a. Use an IS-LM graph and an aggregate demand graph to show the short-run and long-run effects of that increase on output, the interest rate, and the price level. Include a brief explanation in your answer and be sure to properly label your graphs.

   b. Use an income/spending graph and a money market graph to show the short-run and long-run effects of that decrease on output and the interest rate. Be sure to properly label your graphs.

10. *A Change in Government Spending*: Suppose output is initially at its potential. Government spending then decreases.

    a. Use an IS-LM graph and an aggregate demand graph to show the short-run and long-run effects of that decrease on output, the interest rate, and the price level. Include a brief explanation in your answer and be sure to properly label your graphs.

    b. Use an income/spending graph and a money market graph to show the short-run and long-run effects of that decrease on output and the interest rate. Be sure to properly label your graphs.

11. *A Change in the Money Supply*: Suppose output is initially at its potential. The money supply then increases.

    a. Use an IS-LM graph and an aggregate demand graph to show the short-run and long-run effects of that increase on output, the interest rate, and the price level. Include a brief explanation in your answer and be sure to properly label your graphs.

    b. Use an income/spending graph and a money market graph to show the short-run and long-run effects of that decrease on output and the interest rate. Be sure to properly label your graphs.

12. *Stabilization Policy*: Suppose actual output is initially above potential output. If policymakers prefer price stability and do not desire higher interest rates, what type of stabilization policy should it use and then briefly explain how that policy will impact the economy? Use an IS/LM graph and an aggregate demand graph to support your answer.

13. *Accommodative vs. Nonaccommodative Monetary Policy*: Suppose the economy is initially at potential output. A rapid increase in energy prices then pushes up the price level. What are the advantages and disadvantages of using accommodative and nonaccommodative monetary policy? In your answer, state the short- and long-run impacts of each policy on the price level and output. Use an aggregate demand graph for each policy option to support your answer.

14. *The Phillip's Curve*: Use Okun's law and the Phillips curve to derive a relationship between inflation and unemployment. Is inflation related to the current period unemployment or last period's unemployment?