Prep Questions for the Final
ECON 3133
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Note: This list of prep questions only includes the material since Exam #3. When studying for the Final, you should also review the prep questions from Exam #1, Exam #2, and Exam #3.

1. *Autonomous Imports*: Suppose the economy is initially at potential output. What are the short-run and long-run impacts of an increase in autonomous imports on output, the interest rate, the price level, the nominal exchange rate, and the real exchange rate? Briefly explain your answer. Use an IS/LM graph and an aggregate demand graph to support that answer.

2. *Monetary Policy and a Real Exchange Rate Target*: Suppose the central bank's objective is to target the real exchange rate. What is the short-run impact of an increase in the world interest rate on output, the domestic interest rate, the price level, the nominal exchange rate, and the real exchange rate? Briefly explain your answer. You can assume that economy is initially at potential output. Use an IS/LM graph and an aggregate demand graph to support that answer.

3. *Nominal and Real Exchange Rates*: Let the following equations describe an open economy:

$$Y = C + I + G + (X - IM)$$
$$C = 26 + 0.92\times(1 - t)\times Y$$
$$I = 760 - 2{,}000\times R$$
$$(X - IM) = 2{,}050 - 2{,}000\times E_R - 0.07\times(1 - t)\times Y$$
$$E_R = 0.8 + 4\times R$$
$$M^S = (Y - 20{,}000\times R)\times P$$

   where Y is actual output, C is consumption, I is investment, G is government spending, (X – IM) is net exports, t is the proportional income tax rate, R is the interest rate, E_R is the real exchange rate, M^S is the money supply, and P is the domestic price level. Furthermore, government spending is 800, the money supply is 15,200, the proportional income tax rate is 20%, the domestic price level is 4, and the rest-of-the-world price level is 8.

   a. Calculate the equilibrium values of output and the interest rate.
   b. Determine the equilibrium nominal and real exchange rates.

4. *Government Deficit/Debt*: Suppose the debt (D) is 12,000, the nominal interest rate (R) is 0.04, government spending is 520, actual output (Y) is 4,800, potential output (Y*) is 5,000, transfer payments (F) equal 300 – 0.2×(Y – Y*), and taxes (T) equal 0.25×Y.

   a. Find the size of the actual budget deficit.
   b. Determine the size of the cyclical budget deficit.
   c. Calculate next period's government debt.

5. *Government Spending and Automatic Stabilizers*: Let the following equations describe a simple economy without a foreign sector:

$$Y = C + I + G$$
$$C = 205 + 0.92\times(1 - t)\times Y$$
$$I = 760 - 8{,}000\times R$$
$$G = 430 - 0.1\times(Y - Y^*)$$
$$M^S = (Y - 16{,}000\times R)\times P$$

where Y is actual output, Y* is potential output, C is consumption, I is investment, G is government spending, t is the proportional income tax rate, R is the interest rate, M^S is the money supply, and P is the price level. Furthermore, potential output is 4,000, the money supply is 6,950, the proportional income tax rate is 25%, and the price level is 2.5.

a. Calculate the equilibrium values of output and the interest rate.
b. Determine the equilibrium level of government spending.
c. Briefly describe how automatic stabilizers (i.e., $-\,0.1\times(Y - Y^*)$) impact the slope of the IS curve.

6. *Anticipated vs. Unanticipated Money Supply Increase*: Suppose prices are flexible but firms have imperfect information on the aggregate price level. If the economy is initially at potential output, what is the short-run impact of an <u>unanticipated</u> money supply increase on aggregate output and the aggregate price level? How does your answer change if the money supply increase is <u>anticipated</u>? Use aggregate demand/aggregate supply graphs to support your answer.

7. *Sticky Wages/Wage Setting*: Answer parts a – b below.

a. Briefly explain how stickiness in wage setting will cause prices to be sticky.
b. Which of the following will likely lead to a higher wage rate in contract negotiations: a higher unemployment rate or a higher expected inflation rate? Briefly explain your answer.