

Final Exam

General Instructions:

This exam is closed book and closed notes. The time limit is 120 minutes. Please read each question carefully before answering. If you are confused about a question please ask me to clarify it before answering. Be as specific as possible when answering questions. Make sure to label all graphs! Total points = 120. Relax, don't stress and good luck!

I. Definitions (10 points total, 2.5 points each). Please define 4 of the following 8 terms.

- | | |
|---|------------------------------|
| (a) Stabilization policy | (b) Menu cost |
| (c) Expectations augmented Phillips curve | (d) Primary deficit |
| (e) Efficiency wage | (f) Cyclical unemployment |
| (g) Marginal tax rate | (h) Monopolistic competition |

II. Short-Answer: Government spending and its financing (15 points total, 7.5 points each)

1. What are the major components of government outlays? What are the major sources of government revenues? How does the composition of the Federal government's outlays differ from that of state and local governments?

2. How is government debt related to the government deficit? What factors contribute to a high growth rate of the debt-GDP ratio?

III. Multiple Choice: Aggregate demand and Aggregate supply (25 points)

1. Which of the following changes shifts the AD curve to the right?
 - a. A temporary decrease in government purchases.
 - b. A decline in the nominal money supply.
 - c. An increase in corporate taxes.
 - d. An increase in consumer confidence.

2. Which of the following shifts the AD curve to the left?
 - a. A decline in the nominal money supply.
 - b. A decrease in income taxes.
 - c. A increase in expected inflation.
 - d. An increase in the future marginal productivity of capital.

3. In the classical model, which of the following shifts the aggregate supply curve to the right?
 - a. A demographic change that increases the labor supply.
 - b. A decrease in the demand for labor.
 - c. An increase in consumer confidence.
 - d. A decrease in taxes (assuming Ricardian equivalence doesn't hold).

4. According to the misperceptions theory, when the aggregate price level (P) is higher than expected,
 - a. The aggregate quantity of output supplied rises above the full employment level.
 - b. The aggregate quantity of output supplied falls below the full employment level.
 - c. The aggregate quantity of output demanded falls below the full employment level.
 - d. The aggregate quantity of output demanded rises above the full employment level.

5. The aggregate demand curve shows the combinations of output (Y) and the price level (P) that put the economy on
 - a. The FE line and the IS curve.
 - b. The FE line, the IS curve, and the LM curve.
 - c. The IS curve.
 - d. The IS curve and the LM curve.

IV. Business cycle analysis with the Keynesian model (50 points total)

1. List the main assumptions of the Keynesian and Classical models that we have developed in class. (5 points)

2. Suppose the economy is initially at full employment as illustrated in the graph below. Now suppose that the Fed, for some unspecified reason, suddenly decreases the money supply (M).

a. Describe what happens to the following variables in the **short-run and in the long-run**: (10 points)

Variable	Short-run (10 points)	Long-run (10 points)
output (Y)		
employment (N)		
real interest rate (r)		
price level (P)		
real wage (W/P)		
real balances (M/P)		
Avg. labor productivity (Y/N)		
investment (I)		
national saving (S)		
unemployment rate (u)		

b. What business cycle facts **are not** explained by the above Keynesian analysis? (5 points)

3. Suppose the economy is initially in a recession as illustrated in the diagram below.

- a. Starting from the recession situation illustrated above, suppose the government decides to use expansionary fiscal policy (say, an increase in government spending (G)) to help the economy recover from the recession. Illustrate, using the IS/LM-AS/AD diagrams, how the use of such fiscal policy can restore the economy to full employment. As part of your analysis, comment on the effects of increases in G on the real interest rate and the amount of national saving and investment. (10 points)

- b. Starting from the recession situation illustrated above at the beginning of this problem, suppose the Fed decides to use expansionary monetary policy (an increase in the money supply (M)) to help the economy recover from the recession. Illustrate, using the IS/LM-AS/AD diagrams, how the use of such monetary policy can restore the economy to full employment. As part of your analysis, comment on the effects of increases in M on the real interest rate and the amount of national saving and investment. (10 points)
- c. Classical economists would argue that it is not necessary for the government or the Fed to take action during a recession and, further, that expansionary fiscal or monetary policy may actually make the economy more unstable. What are the reasons for these statements? (10 points)

V. Inflation, Unemployment and the Expectations Augmented Phillips Curve(20 points)

The following questions are based on the classical model with misperceptions as illustrated below. Suppose that the economy is in general equilibrium but is operating at a fairly high rate of inflation (say 10%). The Fed wishes to bring the inflation rate down by slowing down the growth rate of the money supply.

1. Starting from the initial equilibrium shown above, suppose the Fed unexpectedly decreases the money supply by 10%, say. Describe what happens to the following variables in the **short-run and in the long-run**: (10 points)

Variable	Short-run (5 points)	Long-run (5 points)
output (Y)		
employment (N)		
real interest rate (r)		
price level (P)		
real wage (W/P)		
real balances (M/P)		
expected real wage (W/P ^e)		
investment (I)		
national saving (S)		
unemployment rate (u)		

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2. Describe how your analysis above relates to the expectations augmented Phillips curve. In particular, draw a graph of the expectations augmented Phillips curve and illustrate the short-run and long-run relationship between inflation and unemployment that is implied by the analysis in part 1 above. (10 points)