

INTERMEDIATE MACROECONOMICS (ECON 300) – SPRING 2008 – ILAN NOY
PRACTICE MIDTERM

USE GRAPHS WHENEVER THAT IS POSSIBLE!!!

1) Based on your understanding of the AS-AD model and the IS-LM model, graphically illustrate and explain what effect an increase in government expenditures will have on the economy.

- a) Graph everything. In your graphs, clearly illustrate the short-run and medium-run equilibria.
- b) Explain (in words) why the medium-run equilibrium is different from the short-run.
- c) Was this increase in government expenditures neutral in the medium run? Explain.

2) Explain in detail what short run effect(s) a Fed sale of bonds will have on:

(a) The money market diagram; (b) The LM curve; and (c) the IS curve.

3) Explain how the unemployment rate is calculated. In your answer, include an explanation of each of the variables used to calculate the unemployment rate.

4) Increases in the budget deficit are believed to cause reductions in investment (crowding out). Based on your understanding of the IS-LM model, will a tax cut cause a reduction in investment? Explain using a graph.

5) Use the IS-LM model to answer this question. Suppose there is a simultaneous increase in government spending and increase in the money supply. Explain what effect this particular policy mix will have on output and the interest rate. Based on your analysis, do we know with certainty what effect this policy mix will have on output? Explain using a graph.

6) Explain the difference between the GDP deflator and the CPI. Which one is a better indicator of inflation? Why?

7) Based on your understanding of the AS-AD model and the IS-LM model, graphically illustrate and explain what effect an increase in taxes will have on the economy.

- a) Graph everything. In your graphs, clearly illustrate the short-run and medium-run equilibria. Provide at least one graph for the IS-LM and one graph for the AS-AD models.
- b) Explain (in words) why the medium-run equilibrium will be different from the short-run.
- c) In the medium run, will the increase in taxes affect consumption? Will it affect government expenditures? Will it affect investment? Explain.

The actual exam will have questions that are similar to the above, but not the same! It will be shorter. It may also include questions on chapter 6 (the labor market WS-PS model).

ANSWER KEY

1) Based on your understanding of the AS-AD model and the IS-LM model, graphically illustrate and explain what effect an increase in government expenditures will have on the economy.

- a) Graph everything. In your graphs, clearly illustrate the short-run and medium-run equilibria.

SHORT RUN – IS MOVES RIGHT, AD MOVES RIGHT

MEDIUM RUN – LM MOVES LEFT, AS MOVES LEFT

- b) Explain (in words) why the medium-run equilibrium is different from the short-run.

FOLLOWING THE SHORT RUN SHOCK (INCREASE IN G) P^e IS NOT EQUAL TO P . THIS WILL CAUSE EVENTUALLY LEAD TO AN INCREASE IN P^e WHICH WILL SHIFT THE AS CURVE TO THE LEFT. IN THE MEDIUM RUN, OUTPUT WILL RETURN TO ITS NATURAL RATE.

- c) Was this increase in government expenditures neutral in the medium run? Explain.

IT WASN'T. CHANGES IN G WILL CHANGE THE COMPOSITION OF OUTPUT IN THE MEDIUM RUN (ALTHOUGH THE QUANTITY OF OUTPUT WILL REMAIN THE NATURAL/STRUCTURAL RATE).

2) Explain in detail what short run effect(s) a Fed sale of bonds will have on...

A SALE OF BONDS IMPLIES A CONTRACTION OF THE MONEY SUPPLY. THE MONEY SUPPLY VERTICAL LINE WILL SHIFT TO THE LEFT (INCREASING THE INTEREST RATE). THE LM CURVE WILL SHIFT LEFT (CONTRACTIONARY MONETARY POLICY). THE IS CURVE WILL NOT SHIFT AND THE NEW EQUILIBRIUM WILL SHIFT ALONG THE IS CURVE.

3) Explain how the unemployment rate is calculated. In your answer, include an explanation of each of the variables used to calculate the unemployment rate.

$$\text{UNEMPLOYMENT RATE} = \text{UNEMPLOYMENT} / \text{LABOR FORCE}$$

SEE BOOK FOR DEFINITIONS.

4) Increases in the budget deficit are believed to cause reductions in investment (crowding out).

Based on your understanding of the IS-LM model, will a tax cut cause a reduction in investment?

Explain using a graph.

INCREASES IN DEFICIT = EXPANSIONARY FISCAL POLICY WHICH WILL SHIFT THE IS CURVE TO THE RIGHT. THIS WILL CAUSE AN INCREASE IN OUTPUT (WHICH WILL INCREASE INVESTMENT) AND AN INCREASE IN THE INTEREST RATE (WHICH WILL DECREASE INVESTMENT). THEREFORE, THE EFFECT ON INVESTMENT IS AMBIGUOUS.

5) Use the IS-LM model to answer this question. Suppose there is a simultaneous increase in government spending and increase in the money supply. Explain what effect this particular policy mix will have on output and the interest rate. Based on your analysis, do we know with certainty what effect this policy mix will have on output? Explain using a graph.

BOTH IS AND LM WILL SHIFT TO THE RIGHT. THE EFFECT ON OUTPUT IS UNAMBIGUOUS (INCREASE) WHILE THE EFFECT ON THE INTEREST RATE IS UNCERTAIN AS THE SHIFT IN THE IS WILL INCREASE INTEREST RATE WHILE THE SHIFT IN LM WILL DO THE OPPOSITE.

6) Explain the difference between the GDP deflator and the CPI. Which one is a better indicator of inflation? Why?

THE GDP DEFLATOR MEASURES THE CHANGES IN PRICES OF GOODS PRODUCED DOMESTICALLY (AND THUS INCLUDES ACCOUNTING FOR EXPORTS BUT NOT OF IMPORTS). THE CPI MEASURES THE CHANGES IN PRICES OF GOODS CONSUMED IN THE ECONOMY (AND THUS DOES NOT ACCOUNT FOR EXPORTS BUT DOES FOR IMPORTS).

BOTH MEASURE DIFFERENT TYPES OF INFLATION (NONE IS BETTER THAN THE OTHER). THE CPI IS A BETTER MEASURE FOR THE EFFECT OF CHANGES ON CONSUMERS WHILE THE GDP DEFLATOR MEASURE EFFECTS ON PRODUCERS.

7) a) Based on your understanding of the AS-AD model and the IS-LM model, graphically illustrate and explain what effect an increase in taxes will have on the economy.

Graph everything. In your graphs, clearly illustrate the short-run and medium-run equilibria.

Provide at least one graph for the IS-LM and one graph for the AS-AD models.

SHORT RUN – IS MOVES LEFT, AD MOVES LEFT.

MEDIUM RUN – LM MOVES RIGHT, AS MOVES RIGHT.

b) Explain (in words) why the medium-run equilibrium will be different from the short-run.

FOLLOWING THE SHORT RUN SHOCK (INCREASE IN T) P^e IS NOT EQUAL TO P . THIS WILL EVENTUALLY LEAD TO A DECREASE IN EXPECTATIONS OF FUTURE PRICES WHICH WILL SHIFT THE AS CURVE TO THE RIGHT. IN THE MEDIUM RUN, OUTPUT WILL RETURN TO ITS NATURAL RATE.

c) In the medium run, will the increase in taxes affect consumption? Will it affect government expenditures? Will it affect investment? Explain.

DISPOSABLE INCOME WILL NOW BE PERMANENTLY LOWER AND THEREFORE CONSUMPTION WILL BE LOWER. G IS EXOGENOUS AND THEREFORE WILL NOT CHANGE. INVESTMENT WILL GO UP BY EXACTLY THE SAME AMOUNT THAT CONSUMPTION WENT DOWN AS THE TOTAL OF CONSUMPTION, GOVERNMENT EXPENDITURES AND INVESTMENT IS BACK TO ITS MEDIUM RUN LEVEL (AS BEFORE THE FISCAL POLICY CHANGE).