

Mark on your scantron: Test form A

Midterm 2 - Economics 101 (Spring 2013)

You will have 45 minutes to complete this exam. There are 54 points.

Write all 27 multiple choice answers on your scantron.

Multiple Choice: (16 points total, 2 points each) Choose the best answer. Write on your scantron.

MC#1: Suppose that the quantity theory of money holds, and that prices are completely flexible. If money growth is 1% per year in the U.S., GDP is growing at 1%, and velocity is constant, then the inflation rate should be:

- a) -2%
- b) -1%
- c) 0%
- d) 1%
- e) 2%

MC#2: According to the Fisher relation, if the inflation rate is expected to be 2% this year and the nominal interest rate is 1%, then the ex-ante real interest rate is:

- a) -1%
- b) 1%
- c) 2%
- d) 3%

MC#3: For a country to stop its hyperinflation requires:

- a) decreased money growth
- b) decreased seigniorage
- c) fiscal restraint
- d) all of the above

MC#4: The classical dichotomy:

- a) says real variables do not affect nominal variables
- b) says nominal variables do not affect real variables
- c) holds mainly in the short run but not in the long run
- d) all of the above

MC#5: In the simple AS-AD model of chapter 9, a temporary adverse supply shock (like a rise in the cost of oil) will cause which of the following to happen in the short run:

- a) price and output rise.
- b) price and output fall.
- c) price falls and output rises.
- d) price rises and output falls.

MC#6: Which of the following public policies could help reduce the natural rate of unemployment in Europe:

- a) Raise the legal minimum wage.
- b) Lower unemployment insurance benefits.
- c) Expansionary monetary policy.
- d) All of the above.

MC#7: If you observe a recession when interest rates are low, which of the following shocks could be the cause according to the IS-LM theory?

- a) a tax cut
- b) a cut in money supply
- c) an exogenous fall investment due to pessimism
- d) an exogenous fall in money demand

MC#8: Our theory of money demand says it rises with a rise in:

- a) income
- b) interest rate
- c) expected inflation
- d) all of the above

Problem 1: Keynesian Cross (8 points)

Suppose the U.S. government plans a new fiscal stimulus by cutting taxes \$10bil. And suppose that to avoid a government budget deficit, the government will also cut government spending by \$10 bil. Use the Keynesian cross analysis to compute what effect this combined policy will have on output. Show your work or explain your reasoning.

Assume consumption in the economy can be described by the consumption function: $C = \$10 \text{ bil} + 0.9(Y-T)$, where Y is total national income and T is taxes. Assume that investment is exogenous, so it is not a function of the interest rate.

Problem 2: Short Run and Long Run (16 points total)

Many people believe Europe currently is experiencing a recession due to its policy of fiscal austerity. Use the IS-LM / AS-AD model to analyze the short run and long run effects of a permanent fall in government spending.

(Make the usual IS-LM assumption: Prices are completely fixed in the short run and completely flexible in the long run. Investment is a function only of the interest rate, consumption only a function of disposable income with a constant marginal propensity to consume.)

- a) (6 points) Draw the IS-LM and AS-AD graphs to show the short run and long run equilibria. Assume that prices are completely fixed in the short run. Be sure to label the

axes and curves, use arrows to show shifts in curves, and mark the equilibrium points: 1 for the initial equilibrium, 2 for the short run equilibrium, and 3 for the long-run equilibrium.

b) (5 points) What happens to the following variables in the short run equilibrium you analyzed above? Write on scantron.

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|----------------------------------|---------|---------|--------------|--------------|
| MC#9: interest rate: | a) rise | b) fall | c) no change | d) ambiguous |
| MC#10: investment: | a) rise | b) fall | c) no change | d) ambiguous |
| MC#11: real money demand: | a) rise | b) fall | c) no change | d) ambiguous |
| MC#12: consumption: | a) rise | b) fall | c) no change | d) ambiguous |
| MC#13: nominal GDP: | a) rise | b) fall | c) no change | d) ambiguous |

c) (5 points) Compare the long run equilibrium (point 3 on your graph) to the initial level before the shock (point 1 on your graph). For each variable, is the long run value the same as the initial level before the shock, higher than this, lower or ambiguous?

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|------------------------------|--------------------|-----------|----------|--------------|
| MC#14: real GDP: | a) same as initial | b) higher | c) lower | d) ambiguous |
| MC#15: interest rate: | a) same as initial | b) higher | c) lower | d) ambiguous |
| MC#16: investment: | a) same as initial | b) higher | c) lower | d) ambiguous |
| MC#17: price level: | a) same as initial | b) higher | c) lower | d) ambiguous |
| MC#18: nominal GDP: | a) same as initial | b) higher | c) lower | d) ambiguous |
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Problem 3: IS-LM in the Short Run (14 points total)

The U.S. has been using expansionary monetary policy recently. Analyze the short run effects of a rise in money supply in the IS-LM model, as directed below.

- a) (5 points) Draw an IS-LM diagram for the short run. Be sure to label the axes and curves, and use arrows showing the direction the curves shift. Also mark the initial equilibrium as point '1', and the short-run equilibrium as point '2'. (Make the usual IS-LM assumptions as listed for problem 2 above.) Explain any curve shift briefly.

- b) (5 points) What are the short run effects on the following variables: (write on scantron)

MC#19: interest rate: a) rise b) fall c) no change d) ambiguous

MC#20: investment: a) rise b) fall c) no change d) ambiguous

MC#21: real GDP: a) rise b) fall c) no change d) ambiguous

MC#22: consumption: a) rise b) fall c) no change d) ambiguous

MC#23: real money demand: a) rise b) fall c) no change d) ambiguous

- c) (4 points) Suppose now that investment is less responsive to the interest rate than you assumed in parts (a) and (b) above (the investment function has a smaller parameter number on the interest rate). How would this change the slopes of the curves?

MC#24: slope of IS curve: a) steeper b) flatter c) same d) ambiguous

MC#25: slope of LM curve: a) steeper b) flatter c) same d) ambiguous

How would this affect the response of the following variables to the policy above: would they move more than you indicated above (in absolute value), less or the same?

MC#26: output: a) more b) less c) same d) ambiguous

MC#27: interest rate: a) more b) less c) same d) ambiguous

This page can be used as scratch. It will not be graded.