

Midterm 2 Solution Key

Economics 101 (Fall 2009)

Regrade policy: If you would like your test regraded, please submit a written statement to explain why. Your entire test will be regraded, so there is a possibility that points could be lost rather than gained.

Multiple Choice:

- Version A: 1) d 2) a 3) d 4) c 5) c 6) d 7) c 8) b
 Version B: 1) c 2) d 3) c 4) b 5) d 6) a 7) d 8) c

Problem 1: Keynesian Cross

a) $\Delta Y = -MPC/(1-MPC) \Delta T$

version a: The MPC is 0.8, and ΔY is \$100 bil.

Plugging in: $\$100\text{bil} = -0.8/(1-0.8) \Delta T$, so $\$100\text{bil} = -0.8/(0.2) \Delta T$, $\$100\text{bil} = -4 \Delta T$

So $-\$25\text{bil} = \Delta T$ Taxes should be cut \$25 bil.

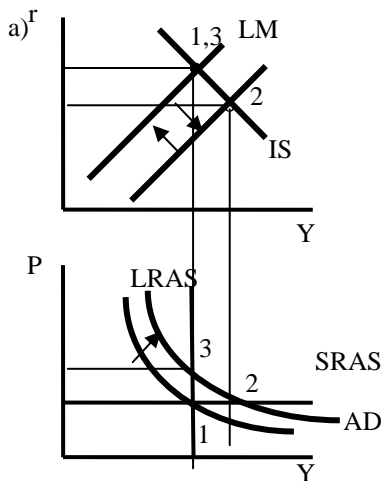
version b: The MPC is 0.75, and ΔY is \$30 bil.

Plugging in: $\$30\text{bil} = -0.75/(1-0.75) \Delta T$, so $\$30\text{bil} = -0.75/(0.25) \Delta T$, $\$30\text{bil} = -3 \Delta T$

So $-\$10\text{bil} = \Delta T$ Taxes should be cut \$10 bil.

b) A rise in government purchases would be better. The multiplier for government purchases is larger in absolute value than for taxes, because government purchases has a direct effect on planned expenditure, whereas taxes work only indirectly through consumption. This means the necessary rise in government spending is smaller than the necessary tax cut, which implies a smaller drop in government saving. (Note that to get a perfect score, you must explain the economic reason for WHY the government spending multiplier is larger; it is not enough just to state that it is larger.)

Problem 2: IS-LM AS-AD Model



a) In the short run, the rise in money supply means there is an excess supply of liquidity, which shifts the LM curve right; this also shifts the AD curve right. In the long run, the price rises and returns the real money supply to its original level; this makes the LM curve shift left, and is a movement up along the new AD curve.

b) Short run: Y rises, r falls, I rises, C rises, no change in price, real money demand rises

version a: a,b,a,a,c,a version b: b,a,b,b,c,b

note: since there was a similar question on the practice final (2007) that had a typo regarding real money demand (which was corrected 11/19), the one part of the question here dealing with real money demand will not be counted against you.

c) Long run: all variables return to their original level, except for price, which is higher.

Version a: a,a,a,b,a version b: a,a,a,c,a

Problem 3: IS LM model

Version a: check only middle box; Version b: check only bottom box

The bare-bones argument is as follows. Only the rise in real money demand would both raise interest rates and lower investment. (It shifts the LM curve left). A rise in taxes is wrong on both counts: by shifting the IS curve left, it lowers the interest rate and raises investment. An exogenous fall in investment would indeed lower investment, but it is wrong because it would lower the interest rate (as it shifts the IS curve left).