

SIMON FRASER UNIVERSITY
Department of Economics

Econ 305
Intermediate Macroeconomic Theory

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Spring 2013

FINAL EXAM
(Solutions)

Answer the following questions True, False, or Uncertain. Briefly explain your answers. No credit without explanation. (8 points each).

1. Reducing inflation causes the unemployment rate to increase.

UNCERTAIN. *It depends on whether the disinflation is credible or not. If it's credible, it's false. If it's not credible then it's true. (See lecture slides 23, pg. 10 for a picture).*

2. A large earthquake (or other natural disaster) will cause the real interest rate to increase.

TRUE. *This is straight out of the book. (See chpt 11, pgs 373-376, 4th edition). They don't need to draw graphs for full credit, but it will be harder to explain in words. The key thing to look for is that the decline in K causes both Y^s to shift left and Y^d to shift right.*

3. Monetary policy is ineffective when the nominal interest rate is zero.

TRUE/UNCERTAIN. *I was looking for some discussion of the 'liquidity trap' here, so they should mention that for full credit. The idea is that when $i = 0$ money and bonds become perfect substitutes, so that conventional monetary policy, which operates by changing the relative supplies of short-term gov't bonds and money, is totally irrelevant. However, this doesn't mean that other kinds of unconventional monetary policy are irrelevant. That's what all the recent debate about 'quantitative easing', which attempts to lower long-term interest rates, has been about.*

4. According to the Mundell-Fleming model, an increase in government spending in the USA causes China's output to fall.

TRUE/UNCERTAIN. *Higher G in the USA shifts out the US IS curve, which raises the US interest rate. Since China pegs to the US dollar, the Bank of China must match the higher US interest rate, by selling fx reserves (or domestic assets). This shifts China's LM curve left. Higher interest rates depress spending in China, and reduce output. The reason it is uncertain in general is that higher US income produces an income effect on the demand for Chinese exports. In principle, this could offset the depressing effects of higher interest rates. However, they don't need to mention this for full credit.*

5. According to Ricardian Equivalence, taxes are irrelevant.

FALSE. *Ricardian Equivalence just says that the timing of lump-sum taxes is irrelevant. The level of taxes is always important, and the assumption that taxes are lump-sum (which don't exist in the real world) is also important.*

The following questions are short answer. Briefly explain your answer. Clarity will be rewarded.

6. (30 points). Suppose it becomes clear that government spending will be reduced in the future. Use the market-clearing Real Business Cycle model developed in the textbook to illustrate how the economy would respond today to an anticipated reduction in future government spending. Be sure to explain how output, employment, wages, interest rates, and the price level respond.

I hate to admit it, but I recycled this question from the Spring 2011 class, problem set 3. The solution is posted on the course website, so I won't repeat everything here. The key idea is that lower future spending (and taxes) produces a positive wealth effect, which reduces labor supply and increasing consumption demand. These effects occur today, before the cuts even take place.

7. (30 points). Macroeconomics has come under a lot of criticism lately, due to the recent financial crisis. Some of this criticism is fair, and some not so fair. One common complaint is that macroeconomic theory cannot explain what has happened during the past 5 years. In this course we discussed not one, but two theories of how a financial crisis could occur, and how it would then affect the economy. One was based on the Keynesian IS-LM model, and one was based on the neoclassical, market-clearing model, subject to financial market 'frictions'. Briefly compare and contrast these two alternative interpretations of the recent global financial crisis. Use graphs if you can. What are the strengths and weaknesses of each approach. Which do you find more persuasive? Why?

Obviously, this is a really hard question. It will be hard to grade, so please read the answers carefully, use your own good judgment, and be generous with partial credit. The idea here is to let the good students reveal themselves.

Probably the best we can hope for is that they repeat the analysis I gave in class. For the Keynesian interpretation see lecture slides 17 (pg 2). I fill in the details during class, so here is the basic idea. A financial crisis can be thought of as a loss of confidence in financial institutions, which produces an increase in the demand for money (ie, increased demand for liquidity). This shifts LM to the left, causing interest rate (spreads) to increase, and spending to decrease. There could also be an endogenous decline in money supply, due to a collapse in the money multiplier. In terms of the analytics, the neoclassical, market-clearing interpretation is not that different. I discussed this in "New Chpt 10 Lecture Slides", which are posted. (See the textbook chpt 10 also). The idea here is to go deeper into why financial markets tend to be unstable, and to talk about asymmetric info and limited commitment. Asymmetric info tends to introduce wedges between borrowing and lending rates, and these spreads tends to widen when default risk increases. Limited commitment introduces a link between collateral values and borrowing constraints, which arises due to an inability to commit to pay back loans. Declining collateral values (due, for example, to a decline in housing prices) will then tighten borrowing constraints (for some people) and depress spending and output.

The really key difference is in terms of policy implications. A Keynesian interpretation suggests a relatively easy policy remedy, i.e., increased govt spending to offset a decline in private spending. This only makes sense if the pre-existing equilibrium is inefficient and distorted (due for example to monopolistic competition and 'sticky prices'). In contrast, from a neoclassical perspective, the response is not so clear. The fundamental source of the problem is 'financial frictions', not a shortfall in 'aggregate demand', and while govt policy may usefully ameliorate these frictions ex ante, tax cuts or ill conceived govt spending projects will just divert resources from the private sector to the public sector.