EC 4010: Tutorial Questions

December 8, 2010

1. Suppose the real interest rate on Ireland's existing and prospective debt is 5.8 percent and its debt/GDP ratio is 1. What primary balance is necessary to stablize the debt/GDP ratio if no real growth is expected?

2. Spain and Britain have approximately the same ratios of debt to GDP. Yet the risk premium on Spanish bonds is higher. Using the debt sustainability analysis, explain why this may be so.

3. Can printing money be an efficient source of government revenue?

4. Give the first order condition for labour in the RBC model. What happens to labour supply when consumption falls? Casey Mulligan has argued that the fall in house and equity prices could in fact be expansionary for an economy. Use the labour/leisure optimality condition to explain his reasoning.

5. Write down the labour/leisure optimality condition in the RBC model. Over time, wage and consumption grow at approximately the same rate. What does the RBC model predict for the long-run trend in labour hours?

6. Does RBC theory take the view that recessions are desirable?

7. The Irish government has recently introduced both temporary income levies on wages. Explain clearly the implications of this policy would within the context of the RBC model.

8. According to RBC theory, if the government was attempting to stabilize labour input over the business cycle, how should it levy taxes on wage income?

9. Suppose that, because of budget deficits, the government systematically raises labour taxes in a recession, but lowers them in a boom. What are the implications for labour supply?

10. Explain why, the more transitory the shock, the greater the increase in the investment/gdp ratio, when A rises.

11. Suppose the utility function in the RBC model takes the form

$$u(C) = \log C.$$

Assume agents may work 12 hours per day. What would labour supply be in equilibrium? Explain how the dynamics of the model would change if there was a temporary, but persistent TFP shock.

12. Explain what would happen to i) output ii) consumption and iii) labour supply if there was a temporary increase in A for one period, and the production function was $Y = AL$? Assume output is non-storable.

13. If shocks to A were not persistent, would investment still rise if A rose in a given period?

14. Last year, the British government introduced a temporary reduction in the VAT rate for thirteen months. What implications does this have for the intertemporal substitution of labour?

15. What would happen if consumers expected a once-off positive TFP shock *next period*. What implications would there be for the economy *this* period?

16. If there was temporary but persistent increase in A, what would happen to the rental rate on capital over time.