

ECONOMICS 8344 – Macroeconomic Theory III, Fall 2007

Reading Guide for the Midterm.

The midterm will mainly ask you to explain models (as opposed to the first year exams that involve a lot of problem solving). Of course, if I can think of a good problem solving question that shows if you understand a model, I will use that. Below is an outline to help you focus.

Romer Chapter 10. This is about monetary policy but the more important is the ideas of time consistency—there are issues that arose with the rational expectations revolution in macro.

- Know the model of Chapter 10.3. Make sure that you can argue the main idea: Policy makers will do what is best in period 2 but it would have been better if they could have committed in period 1 to do something else in period 2. This is one example of the benefits of "tying one's own hands."
- Ch. 10.4, the Backus-Driffill model. If you can set up the model that is, of course, good. But the model is a bit too convoluted so I suggest you practise explaining in words what exactly is going on. (Note the word "exactly"—one can precise using words.) Be able to sketch the idea of delegation. You don't need to memorize the material from starting with "Empirical application:..."
- Ch. 10.5. Be able to explain how to calculate the welfare benefits from stabilization and/or risk sharing. You should use equations but you don't have to follow the book. Make sure to stress the point about temporary vs. permanent shocks.
- Ch. 10.8. You may be asked to derive the inflation Laffer curve. Notice the point that hyperinflation may occur because the government may surprise agents but I will not ask you to replicate the math after the headline "Seignorage and hyperinflation."

Romer's Chapter 11 is about fiscal policy but the more important is the ideas of strategic interaction and the Barro tax-smoothing model.

- You are expected to be able to derive the Barro tax smoothing results in detail as in Chapter 11.4.

- Chapter 11.6, on strategic debt accumulation. Be able to derive the model with extreme preferences. (The discussion about median voters is really a red herring, this is about the fact that someone [whether a median voter or a dictator or something else] may be in charge the next period.) The derivation with logarithmic utility: you don't need to be able to memorize it, but be able to explain the point that preferences can have such high curvature that there will be no strategic debt accumulation. Maybe make the point on graphing a utility function as I did in class.
- Chapter 11.7, “delayed stabilization.” Be able to derive the result and to explain the logic: conflict can rationally happen when agents have to make offers based on the probabilities they will be accepted. (A similar logic can be used to [at least attempt to] explain strikes, wars, etc.)
- Chapter 11.10. Be able to derive the figure (maybe only relevant for developing countries) that show that there can be two equilibria interest vs. probability of default, when the probability of default is a function of the interest rate.

Obstfeld and Rogoff's Chapter 6 is a collection of simple examples of important concepts in contract theory, here applied to sovereign lending.

- OR Chapter 6.1 gives an example with direct sanctions. Be able to derive the optimal risk sharing contract. (I won't ask you to find the solution for the specific example in 6.1.1.4).
- You need to be able to explain the logic of Section 6.1.2 which is called “Reputation for Repayment.” I don't really like that term, but be able to explain the idea of the cost of being shut out of the insurance market in the future. It is not too hard to illustrate in the static setting that OR use. (Note that the loss is bigger if shocks are permanent as mentioned above.)
- Be able to derive the results illustrated in Figure 6.3. The main insight is the discontinuity that this model finds. I will not ask you to find the debt ceiling (equation (30)) but you should be able to explain how one would find it—i.e., one has to derive maximum utility under the assumption of repayment and under the assumption of default and then compare.
- OR Chapter 6.3 Risk sharing with hidden information. Be able to make the point that there are risk sharing contracts that give higher *a priori* expected utility than setups with just borrowing and lending ex post. Know the idea of truth telling constraints.

- OR 6.4. Moral hazard. Derive the IC and ZP curves—I may ask you to sketch the curves and explain how they are derived (rather than going through the first order conditions.)

In OR Chapter 8, we covered the simple Cagan model up till 8.2.3.

In OR Chapter 9, we covered a simple Dornbush model. I suggest you learn how to get to equation (12) and do the rest via the figure with the saddle path.

Obstfeld and Rogoff Chapter 10 is an example of a modern neoclassical (optimization) new-Keynesian (sticky prices) model. I may ask you to replicate the setup and derive (some of) the Euler equations (13)-(15). I may also ask you to explain OR's solution strategy. (Find FOC's, find symmetric equilibrium, linearize the steady state, etc.) I will not ask you to replicate any of the linearizations.