

### Syllabus.

This is a short write-up to help you prioritize. The exact syllabus for the exams is what was covered in class. Do not try and read material in the textbooks that we did not cover (by all means, start doing that the very minute you pass the core exam, but not before).

#### Econometric Tools

ARMA models. Lag-operators. Handout. (Lag-operators are treated mentioned in Romer p. 293–294 if you want another simple source, but if you understand the handout there is nothing new there.)

Make sure you know the definition of a Random Walk and a Martingale.

You need to understand expectations and conditional expectations.

The logic of instrumental variables estimation. (I will not ask about things like proof of consistency and how to find standard errors etc.—that will be for the econometrics courses.)

Measurement error in simple OLS.

#### Old Keynesian Material

The Keynesian IS/LM model and extensions. Romer Chapter 5. We didn't do Ch. 5.2 (open economy) or Ch. 5.5. (The reading guide for midterm 1 is more specific about the Keynesian material covered.)

#### New Keynesian Material

- a. The model of imperfect competition in Section 6.4. You should start with homework 6.2, in which the price index is derived rigorously.
- b. Staggered Price Adjustment. Fischer's version in Chapter 6.5. Be aware of how it fits into the literature as a response to the Rational Expectations literature (esp. as it applied to monetary policy).
- c. The idea of menu costs in Chapter 6.8. (Figure 6.3 in Romer or the even simpler version I did in class—from Mankiw 1985.) The quantitative examples pp. 303–310.

#### Consumption

Keynes' consumption function and Friedman's critique. Handout and also in Romer p. 334.

Hall's PIH model in all detail:

The Euler equation (handout, I don't think the general version is stated in the book [which is somewhat odd]).

The martingale result (No uncertainty, finite horizon: Romer p. 331–332. Uncertainty and quadratic utility: Romer p. 337–339). The predicted reaction of consumption to innovation to income when income follows an ARMA process. (Handout. Deaton p. 83–87.) Note how the PIH model is a prime example of how rational expectations leads to “cross-equation restrictions” (i.e., the reaction of consumption to income shocks depends on the parameters of the equation of income).

Excess smoothness and excess sensitivity.

Campbell-Mankiw’s rule-of-thumb consumer model. (Note that it is not an optimizing model, and maybe better seen as a way of quantifying excess smoothness, rather than a “model” in the modern sense.)

The CAPM model. Handout. (You can alternatively look in any undergraduate text with “Investments” in the title.)

The consumption CAPM model (Handout. A simpler version using quadratic utility in Romer p. 350–51 but you should know the one from the handout). Know how to price an asset with given return distribution (including the covariance with consumption growth).

Lucas asset pricing model (simple case). Homework 7.9.

The Equity Premium Puzzle (Romer p. 351–353.)

Effect of changes in the interest rate. (Romer 7.4, p. 344–348. Handout).

Consumption in a closed economy (Ostergaard, Sørensen, and Yosha, *Journal of Political Economy* 2002. You don’t need to read the article if you get the points made in class. Same for).

### **Lucas Imperfect Information model.**

Romer Chapter 6.1–6.3. Know this model in all detail. While it is not so influential any more as a guide to macroeconomic policy, it is likely the most influential paper since Keynes in terms of methodology (rational expectations, dynamic specification).

### **Risk sharing**

Arrow securities and Euler-equations for Arrow securities (note that those are a special case of the general Euler equation). Obstfeld-Rogoff p. 270–278.

General equilibrium with Arrow securities. Obstfeld-Rogoff p. 285–294.

The perfect Risk Sharing relation (Obstfeld-Rogoff p. 288-291).

Edgeworth box (Obstfeld-Rogoff p. 290, class.)

Backus, Kydland, Kehoe type correlation “tests” for perfect Risk Sharing. (Obstfeld-Rogoff p. 291.)

Home Bias. (Obstfeld-Rogoff p. 304–306.)

Testing for perfect RS (Mace and Cochrane articles in *Journal of Political Economy* 1991— the parts covered in class).