

Syllabus.

This is a short write-up to help you prioritize. The exact syllabus for the exams is what was covered in class.

Econometric Tools

ARMA models. Lag-operators. Handout. (Lag-operators are treated mentioned in Romer p. 323–326 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. Handout: Reading guide to chapter 5, should help you understand what points Romer is trying to make with the (partial) models.

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. (This implies that there may be exam question regarding the model of that homework.)
- b. Staggered Price Adjustment. Fischer's version in Chapter 6.9. 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 6.5. (Figure 6.2 in Romer or the even simpler version I did in class—from Mankiw 1985.) The quantitative example pp. 292–293 (point here: Menu cost can not explain price rigidity if the labor market is competitive with a very inelastic labor supply. Plus observation: If labor market is competitive it must have a low elasticity because wages has changed a lot over time while labor supplied apparently has not).

Consumption

Keynes' consumption function and Friedman's critique. Handout and also in Romer chapter 7 (but stick to the handout if you understand it).

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 and uncertainty, utility are treated in Romer chapter 7, but again, I will focus on the handouts. 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. (Handout, 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. Romer p. 366–368 treats a quadratic utility version. Focus on the handout, although I of course might ask what happens for different utility function including quadratic). Know how to price an asset with given return distribution (including the covariance with consumption growth).

Lucas asset pricing model (simple case). Homework 7.11. This is an important model. Make sure to study this. (And notice how the assumption of symmetric consumers implies no trade.)

The Equity Premium Puzzle (Romer p. 368–370.)

Effect of changes in the interest rate. (Romer 7.4, p. 361–365. Handout. Notice that I made the approximation that $Ef(x) = f(Ex)$ for a non-linear function, this is the only place that this is allowed!).

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.)

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.)