First semester 2006/2007 Giulio Fella
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ECOM 001 Macroeconomics A

Office hours
Room W302, Tuesdays 10-11, Wednesdays 10-11

Course structure
The course is articulated in eleven two-hour lectures and ten one-hour classes. The purpose of the classes is to discuss the solutions to the weekly problem sets. These are a compulsory part of the course and will be collected and marked every week.

Assessment
The final mark for the course will be made up of two components. 75% of the overall mark is determined by your mark in the two-hour, end-of-year exam. The remaining 25% is determined by your average mark in the weekly problem sets.
Solutions to the problem sets have to be submitted before the beginning of class. No solution will be accepted after the relevant problem set has been discussed in class. You are strongly advised to email me in advance if you expect not to be able to meet the deadline. Work failing to meet the deadline without good cause will receive a mark of zero.

Course Content
The course deals with four main topics:
- The determinants of a country's national income and its rate of growh. We will first abstract from the determinants of the saving rate. We will consider the neoclassical (exogenous) growth theory, which emphasizes the role of capital accumulation, and endogenous growth theories, which aim at explaining the determinants of technological progress .
- Interaction between saving and capital accumulation when saving is endogenous (Ramsey model). Debt versus tax financing of public expenditure with endogenous saving (Ricardian equivalence).
- Business cycle theories. We will cover two main classes of theories: Real Business Cycle theories, for which business cycle fluctuations are an efficient response to real - as opposed to nominal - shocks and New Keynesian theories, which imply that business cycles fluctuations may be inefficient due to the existence of nominal rigidities.
- Rational expectations and their consequences for the effectiveness of policy and its conduct.

Aims
The course introduces the main theoretical contributions within each set of topics and critically assesses their strength and limitations in the light of the empirical evidence.

Learning outcomes

On successful completion of the course you should:

1. be familiar with the empirical evidence concerning the issues covered in the course;
2. understand the most important economic theories explaining cross-country income differences, income growth, business cycle fluctuations and the viability of income stabilization policies;
3. be able to use the models introduced in class to answer policy questions.

PREREQUISITES

Economics: Familiarity with an intermediate macroeconomics text such as N. Gregory Mankiw, *Macroeconomics,* Worth Publishers or J. Bradford DeLong, *Macroeconomics,* McGraw Hill or any other intermediate undergraduate macroeconomic textbook.

Graduate macro gets pretty technical and it is very easy to lose sight of the broader picture. An undergraduate textbook is a good companion to keep you on track. I personally strongly recommend Mankiw. It is very comprehensive and modern in its approach.

Mathematics: Familiarity with linear algebra, basic calculus at the level of Alpha C. Chiang, *Fundamental Methods of Mathematical Economics,* McGraw Hill. Linear difference and differential equations will be introduced during the course, but you are advised to get familiar with the topic in advance.

READINGS

The following is the basic textbook for the course and you are strongly advised to buy it.

David Romer, <u>Advanced Macroeconomics</u>, 3rd edition, 2005, McGraw-Hill.

I will also provide lecture notes.

Other useful books are listed below. Jones is excellent on growth and slighly easier than Romer. On the same topic, Barro and Sala-i-Martin is more advanced, but its Chapter 1 is very accessible. Blanchard and Fischer is the classic text, for all the other parts of the course. It is more advanced than Romer, but it is definitely worth consulting. For the part on ad-hoc static analysis, Mankiw is a useful alternatives. Sargent provides the best treatment I know of. It is very rigorous and can be worth careful reading. It is quite exacting, though. Begg and Sheffrin are good introductions to the rational expectation literature.

Robert J. Barro and Xavier Sala-i-Martin, *Economic Growth,* McGraw Hill.

Olivier J. Blanchard and Stanley Fischer, *Lectures on Macroeconomic Theory,* MIT Press.

David K. H. Begg, *The Rational Expectation Revolution in Macroeconomics,* Johns Hopkins University Press.

Charles Jones, *Introduction to Economic Growth,* Norton.

Thomas J. Sargent, *Macroeconomic Theory*, Academic Press.

Steven M. Sheffrin, *Rational Expectations,*Cambridge University Press.

You are **not** expected to read everything on the following list. The starred (*) readings constitute essential material, while non-starred ones will be referred to in passing and can be explored at your leisure. Doubly-starred (**) readings are more recent paper on the frontier of the debate on a topic.

Topics:

The Real Side of the Economy

Weeks 1-3

1. Accounting for cross-country income and growth differences.

*Romer, Ch. 1.7
or better
*Barro and Sala-i-Martin, Introduction (I.1-I.2 only) and Ch. 10.4
or
Jones, Ch. 1

**Caselli, Francesco (20040, "Accounting for Cross-Country Income Differences," http://personal.lse.ac.uk/CASELLIF/papers/handbook.pdf
**Hall, Robert and Charles Jones (1999), "Why Do Some Countries Produce So Much More Output per Worker than Others?", *Quarterly Journal of Economics*. 114, 83-116.
Krugman, Paul "The Myth of Asia's Miracle", http://web.mit.edu/krugman/www/myth.html

2. Exogenous growth with exogenous saving: Solow Growth Model

*Romer, Ch. 1
or
*Barro and Sala-i-Martin, Ch. 1.1-1.2
or
Jones, Ch. 2

Mankiw, Gregory, David Romer and David N. Weil (1992) "A Contribution to the Empirics of Economic Growth", *Quarterly Journal of Economics* 107, 407-437.
Solow, Robert M. (2000), *Growth Theory: An Exposition*, Oxford University Press, Chs. 1-3.

3. Endogenous Growth in the Solow Model

*Romer, pp. 116-117 and Barro and Sala-i-Martin Ch. 1.3.1
*Romer Ch. 3
or

Jones Ch. 5

Barro, R. and Sala-i-Martin, Chs. 4-7.
** Jones, Charles (2004), "Growth and Ideas,"
http://elsa.berkeley.edu/users/chad/handbook200.pdf
Romer, Paul (1986), "Increasing Returns and Long Run Growth," *Journal of Political Economy* 94, 1002-37.
Romer, Paul (1990), "Endogenous Technical Change," *Journal of Political Economy* 98, S71-S102.
Various Authors (1994), "Symposium: New Growth Theory", *Journal of Economic Perspectives* 8 (Winter)

Weeks 4-5

4. Growth with endogenous saving (Ramsey-Cass-Koopmans model), Fiscal Policy and Ricardian Equivalence

*Romer, Ch. 2.1-2.7
or
*Blanchard and Fischer, p. 37-56.

Barro, Robert J. (1974), "Are Governments Bonds Net Wealth?", *Journal of Political Economy,* 1095-1117.
Buiter, Willem H. (1985), "A Guide to Public Sector Debt and Deficits", *Economic Policy: A European Forum* 1, 13-80.

Weeks 6-7

5. Real Business Cycle Theory

*Romer, Ch. 4

King, Robert G. and Sergio Rebelo (1999), "Resuscitating Real Business Cycles", ch. 14 of Taylor, J. and Woodford, M. (eds.) *Handbook of Macroeconomics: vol. 1b*, North-Holland.
Kydland, Fydland and Edward Prescott (1996), "The Computational Experiment: An Econometric Tool", *Journal of Economic Perspectives* 10, 69-84.
Lucas, Robert E. and Leonard Rapping. (1969), "Real Wages, Employment and Inflation", *Journal of Political Economy* 77, 721-54.
McCallum, Ben T. (1989), "Real Business Cycle Models" in Barro, R.J. (ed.) *Modern Business Cycle Theory*, Harvard University Press.
Cooley, Thomas (ed.) (1995), *Frontiers of Modern Business Cycle Research*, Princeton University Press, esp. chs. by Cooley & Prescott; and Kydland.
Benassy, Jean P. "Money and Wage Contracts in an Optimizing Model of the Business Cycle", *Journal of Monetary Economics* 35, 303-15.
Mankiw, Gregory (1989), "Real Business Cycles: A New Keynesian Perspective", *Journal of Economic Perspectives* 3, 79-90.
Plosser, Charles (1989), "Understanding Real Business Cycles", *Journal of Economic Perspectives* 3, 57-79.

Adding the nominal side of the economy

6. Ad-hoc models with and without nominal rigidities

*Romer Ch. 5.1-5.3
Sargent, Ch. 1
Mankiw, Chs. 11 and 13

Weeks 8-11
Microfoundations for nominal rigidities. Rational expectations. Policy effectiveness and ineffectiveness

*Romer Ch. 6
or
Blanchard and Fischer, Ch. 8
**Bhaskar, V. "On Endogenously Staggered Prices", *Review of Economic Studies* 69, 97-116.
Fischer, Stanley "Long Term Contracts, Rational Expectations, and the Optimal Money Supply Rule", *Journal of Political Economy* 85, 191-206.
Friedman, Milton "The Role of Monetary Policy", *American Economic Review* 58, 1-17.
Lucas, Robert E. (1973), "Some International Evidence on Output-Inflation Tradeoffs", *American Economic Review* 63, pp.326-334.
Lucas, Robert E. (1996), "Nobel Lecture: Monetary Neutrality", *Journal of Political Economy* 104, 661-682.
**Mankiw, N. "Sticky Information Versus Sticky Prices: a Proposal to Replace the New Keynesian Phillips Curve", *Quarterly Journal of Economics* CXVII, 1295-1328.
Sargent, T. and Wallace, N. "Rational Expectations, the Optimal Monetary Instrument and the Optimal Money Supply Rule", *Journal of Political Economy* 83, 241-54.

8. Macroeconomic Policy Games

*Romer, Ch. 10.1 and 10.4-10.5
or
Walsh, Carl E. (1998), *Monetary Theory and Policy*, MIT Press, ch. 8.

Alesina, Alberto (1987) "Macroeconomic Policy in a Two-Party System as a Repeated Game", *Quarterly Journal of Economics* 102, 651-78.
Barro, Robert and David Gordon (1983), "A Positive Theory of Monetary Policy in a Natural Rate Model", *Journal of Political Economy* 91, 589-610.
Barro, Robert and David Gordon "Rules, Discretion and Reputation in a Model of Monetary Policy", *Journal of Monetary Economics* 12, 101-21.
Rogoff, Kenneth (1985), "The Optimal Degree of Commitment to an Intermediate Monetary Target", *Quarterly Journal of Economics* 100, 1169-90.
**Svensson, Lars E.O. (1997), "Optimal Inflation Targets, 'Conservative' Central Banks and Linear Inflation Contracts", *American Economic Review*. 87, 98-114.
Walsh, Carl E. (1995), "Optimal Contracts for Central Bankers", *American Economic Review* 85, 150-168.

Persson, Torsten and Guido Tabellini (1993), "Designing Institutions for Monetary Stability", T. Persson and G. Tabellini (eds.) Fiscal and Monetary Policy: Volume 1, MIT Press.

Persson, Torsten and Guido Tabellini (1999), "Monetary Policy", part A of ch. 22 in Taylor, J. and Woodford, M. (eds) *Handbook of Macroeconomics: vol. 1c*, North-Holland, 1999.