

EC750.01 MACROECONOMIC THEORY

Fall 2008

Fabio Schiantarelli
New Administration Building, Room 490
Tel: 617-5524512 (office)
E-Mail: schianta@bc.edu

Course content and objective

The first semester Macroeconomic Theory course provides (mostly) an overview of modern growth theory. We cover the standard, mostly non stochastic, models of exogenous and endogenous growth. Among other, we will study the Solow-Swan model, the Ramsey growth model with infinitely lived optimizing agents, overlapping generation models, models with human capital, basic AK models of endogenous growth, product variety models and quality ladder Schumpeterian growth models. In the last quarter of the course we will study the choice of investment, both in a deterministic and stochastic setting. This will serve as an introduction and link to EC751.

Grading, exams, and tutorials

The evaluation of the students will be based on a Mid-Term Exam (35% of total grade) and a Final Exam (65%).

Midterm Examination: Thursday, October 16, in class

Final Examination: To be announced by the DGS

Students are also strongly encouraged to solve the weekly exercises that will be assigned. Collaboration is fine, provided each student makes a strong individual effort. The exercises will be corrected in a weekly tutorial session lead by a Teaching Assistant. In borderline cases, a record of sustained good performance on problem sets will result in a higher grade.

Reading material

The two main sources of information for the course are:

- 1) Barro, R.J., and X. Sala-I-Martin, **Economic Growth**, second edition, 2004 Cambridge, MIT Press. (BSM for short).
- 2) Acemoglu, Daron, **Introduction to Modern Economic Growth**, Princeton University Press, forthcoming (DA for short).

Another useful supplementary book that does not require dynamic optimization, and may be helpful as a transition book is

- 3) David Romer, **Advanced Macroeconomics**, 2006, McGraw-Hill, third edition (DR for short)

Portions of the following book will also be referred to in the course outline:

- 4) Blanchard, Olivier J. and Fischer, Stanley, *Lectures on Macroeconomics*. Cambridge, MA: MIT Press, 1989.

I will also direct you to the original papers. Core readings (marked with a *) and further readings are listed under each heading of the course outline. Everyone should carefully read and think about the core readings. The further readings include classic articles, more advanced or detailed treatments of the topics, and background material. Students with a strong interest in macroeconomics in general or in a particular topic should be familiar with these readings.

Course outline

- 1) **Trends and Cross Country Differences in Income: An Introduction.**

BSM, Chapter 12

DA, Chapter 1

* Easterly, W. and R. Levine, "What Have we Learned from a Decade of Empirical Research on Growth? It Is Not Factor Accumulation: Stylized Facts and Growth Models", *World Bank Economic Review*, 2001, 15, 177-219.

Pritchett, L., "Divergence Big Time", *Journal of Economic Perspective*, 11, no.3, 1997, pp. 3-17.

- 2) **The Solow Growth Model.**

BSM, Chapter. 1.

DA, Chapter 2

DR, Chapter 1.1-1.7.

- Solow, Robert (1956), "[A Contribution to the Theory of Economic Growth](#)" *Quarterly Journal of Economics* 70:65-94.
- 3) **The Solow Model and the Data.**
- DA, Chapter 3
- 4) **The Ramsey Model with Infinitely Lived Agents.**
- BSM, Chapter 2
- DA, Chapter 5 (skim) and 8
- DR, Chapter 2.1-2.7.
- 5) **The Overlapping Generations Model.**
- BSM, Chapter 3, 3.8
- DA, Chapter 9
- DR, Chapter 2.8-2.12.
- Romer, *Advanced Macroeconomics*, Chapter 2, Part B.
- Diamond, Peter (1965), "[National Debt in a Neoclassical Growth Model](#)" *American Economic Review* 55:1126-1150.
- Blanchard, Olivier J. (1985), "[Debt, Deficits, and Finite Horizons.](#)" *Journal of Political Economy* 93: 223-247.
- 6) **Fiscal Policy, Ricardian Equivalence**
- DR, Chapter 11.
- Blanchard & Fischer, *Lectures on Macroeconomics*, Chapter 3.1-3.2, 3.4.
- Barro, Robert J (1989), "[The Ricardian Approach to Budget Deficits.](#)" *Journal of Economic Perspectives* 3:37-54.
- Bernheim, B. Douglas and Bagwell, Kyle (1988), "[Is Everything Neutral?](#)" *Journal of Political Economy* 96:308-338.
- 6) **Human Capital and Exogenous Growth**
- DA, Chapter 10

*Mankiw, G., Romer, D., and D.N. Weil (1992), "A Contribution to the Empirics of Economic Growth", May, pp. 407-437.

Klenow, P. and A. Rodriguez-Clare (1997), "The Neoclassical Revival in Growth Economics: Has It Gone Too Far?", in Bernanke, B., and J. Rotemberg, eds, NBER Macroeconomic Annual 1997, Cambridge, MA, MIT Press.

7) **First Generation Endogenous Growth Models**

a) One Sector Models of Endogenous Growth

BSM, Chapter 4, 4.1-4.4 and 4.6

DA, Chapter 11

Romer, Paul, M. (1986), "Increasing Returns and Long-Run Growth", *Journal of Political Economy*, 94, October, 1002-1037

b) Two Sectors Models of Growth

BSM, Chapter 5, 5.1-5.4

DR, Chapter 3, Part A

Lucas, Robert E. (1988), "[On the Mechanics of Economic Development](#)" *Journal of Monetary Economics* 22:3-42.

8) **Endogeneizing Technological Change**

a) Technological Change: Models with Expanding Variety of Products

BSM, Chapter 6, 6.1-6.4

DA, Chapter 13

Romer, Paul, M. (1990), "Endogenous Technological Change", *Journal of Political Economy*, 98. October, part II, S71-S102

b) Technological Change: Models with Improvements in the Quality of Products.

BSM, Chapter 7, 7.1-7.2 and 7.5

Aghion, P. and P. Howitt, Endogenous Growth Theory, 1999, MIT Press, Chapter 2 and 3.

DA, Chapter 14

Aghion, Philippe, and Peter Howitt (1992), “ A Model of Growth Through Creative Destruction”, *Econometrica*, 60, March, 323-351

c) Models of Technology Diffusion

BSM, Chapter 8, 8.1-8.5 and 8.8

DA, Chapter 18

9) **Additional empirical analysis of income and growth rates differences**

Hall, Robert E. and Charles I. Jones (1999), "[Why Do Some Countries Produce So Much More Output per Worker than Others?](#)" *Quarterly Journal of Economics* 114:83-116.

*Acemoglu, Daron, Simon Johnson, and James A. Robinson (2001), "[The Colonial Origins of Comparative Development: An Empirical Investigation.](#)" *American Economic Review* 91 (December): 1369-1401.

*Albouy, David (2006), "[The Colonial Origins of Comparative Development: A Reexamination Based on Improved Settler Mortality Data](#)" Unpublished paper, University of Michigan.

See also the [response](#) by Acemoglu-Johnson-Robinson and Albouy's [note to readers](#).

*Acemoglu, Daron and Simon Johnson (2006), "[Disease and Development: The Effect of Life Expectancy on Economic Growth.](#)" NBER wp 12269.

Caselli, Francesco (2005), "[Accounting for Cross-Country Income Differences.](#)" in Aghion and Durlauf (eds.), *Handbook of Economic Growth* (New York: Elsevier) vol. 1A, ch. 9.

Young, A., “The Tyranny of Numbers: Confronting the Statistical Realities of the East Asian Growth Experience” (1995), *Quarterly Journal of Economics*, August, pp. 641-680.

*Kremer, M. (1993), “Population Growth and Technological Change: One Million B.C. To 1990”, *Quarterly Journal of Economics*, August 1993, pp.681-716.

*Jones, C.I. (1995), "R&D-Based Models of Economic Growth", *Journal of Political Economy*, vol. 103, n.4, 1995, pp. 759-784.

*Jones, C.I.(1999), " Growth: With or Without Scale Effects?", *American Economic Review*, May, p. 139-144.

Bond, Steve, Asli Lebleblicioglu, and Fabio Schiantarelli (2007), "[Capital Accumulation and Growth: A New Look at the Empirical Evidence](#)", Boston College Working Paper 591.

10) **Investment**

a) Investment with adjustment costs: Review of deterministic case:

BSM, Chapter 3.2,

DR, Chapter 8.

b) Stochastic case: my notes.