

Duke University
Department of Economics
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Econ. 320: Macroeconomic Analysis I

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This class provides a broad perspective on the state of macroeconomics and builds the tools for students to undertake their own research. My part of the course focuses on economic growth. It provides an overview of the state of the art from the viewpoint of Barro and Sala-i-Martin (2004, MIT University Press), *Economic Growth*. As you probably know, their perspective is strongly biased in favor of the neoclassical growth model and they represent very well the large group of economists who approach the study of economic growth in terms of conditional convergence regressions. On the other side, we find researchers who believe that the neoclassical model fails in countless dimensions and subscribe to a Schumpeterian view of economic growth. (I belong to this group, as you surely already know.) A very good textbook that covers a lot of ground is Aghion and Howitt (1998, MIT University Press), *Endogenous Growth Theory*. Another excellent book is Grossman and Helpman (1991, MIT University Press), *Innovation and Growth in the Global Economy* – although much older, this book is a must read for those interested in the implications of modern growth theory for international economics. For those of you who already own it, the first three chapters of D. Romer (1996, McGraw Hill), *Advanced Macroeconomics*, are useful reading for this course since they blend nicely into the neoclassical capital accumulation approach the modern emphasis on knowledge creation as the engine of growth.

The fact that this is a first-year, first-semester course imposes constraints on our ambitions. We need to focus on basics and tools — and we need to keep in mind that not all of you will stay with the field. This is why this reading list focuses on classics and papers that, although not classics, form the core of what one should know. Nevertheless, in several areas we will get quite close to the research frontier. When this happens, I will be happy to provide those of you who are interested with additional, up-to-date references. A fantastic new resource that just became available is the *Handbook of Economic Growth* (2005, North Holland) edited by P. Aghion and S. Durlauf. Anyone interested in pursuing this field should take a close look at it.

1. Introduction to Long-Run Growth

- Romer P., 1989, Capital Accumulation in the Theory of Long-Run Growth, in *Modern Business Cycle Theory*, edited by R. J. Barro, Harvard University Press, Cambridge.
 - Grossman G. M. and Helpman E., Chapter 1.
 - Barro R. J. and X. Sala-i-Martin, Introduction.
 - Lucas R. E., *Lectures on Economic Growth*, Harvard University Press, Chapter 5.
2. Neoclassical Growth: Exogenous Saving
- Barro R. J. and X. Sala-i-Martin, Chapter 1.
 - Phelps E., 1966, *Golden Rules of Economic Growth*, Norton, New York.
 - Solow R. M., 1956, A contribution to the Theory of Economic Growth, *Quarterly Journal of Economics*, 70:65-94.
 - Solow R. M., 1957, Technical Change and the Aggregate Production Function, *Review of Economic and Statistics*, 39:312-320.
 - Swan T. W., 1956, Economic Growth and Capital Accumulation, *Economic Record*, 32:334-361.
3. Neoclassical Growth: Endogenous Saving
- Barro R. J. and X. Sala-i-Martin, Chapter 2.
 - Cass D., 1965, Optimum Growth in an Aggregative Model of Capital Accumulation, *Review of Economic Studies*, 32:233-240.
 - Koopmans T. C., 1965, On The Concept of Optimal Growth, in *The Econometric Approach to Development Planning*, North Holland, Amsterdam.
 - Ramsey F. P., 1928, A mathematical Theory of Saving, *Economic Journal*, 38:543-559.
4. Neoclassical Growth: Open Economy Considerations and Empirical Evidence
- Barro R. J. and X. Sala-i-Martin, Chapter 3
 - Barro R. J., N. G. Mankiw and X. Sala-i-Martin, 1995, Capital Mobility in Neoclassical Models of Economic Growth, *American Economic Review*, 85: 103-115.
 - Barro R. J. and X. Sala-i-Martin, 1991, Convergence Across States and Regions, *Brookings Papers on Economic Activity*, I.

- Barro R. J. and X. Sala-i-Martin, 1992, Convergence, *Journal of Political Economy*, 100:223-251.
- Mankiw N. G., D. Romer and D. N. Weil, 1992, A Contribution to the Empirics of Economic Growth, *Quarterly Journal of Economics*, 107:407-438.
- Quah D., 1993, Empirical Cross-Section Dynamics in Economic Growth, *European Economic Review*, 37:426-434.
- Sala-i-Martin X., Regional Cohesion: Evidence and Theories of Regional Growth and Convergence, *European Economic Review*, 40:1325-1352.
- Quah D., Empirics for economic Growth and Convergence, *European Economic Review*, 40:1353-1376

5. Endogenous Growth: One-Sector Models

- Backus D., P. Kehoe and T. Kehoe, 1992, In Search of Scale Effects in Trade and Growth, *Journal of Economic Theory*, 57:377-409.
- Barro R. J. and X. Sala-i-Martin, Chapter 4.
- Barro R. J., 1990, Government Spending in a Simple Model of Endogenous Growth, *Journal of Political Economy*, 98:S103-S125.
- Jones L. and Manuelli R., 1990, A Convex Model of Optimal Equilibrium Growth, *Journal of Political Economy*, 98:1008-1037.
- Rebelo S., 1991, Long Run Policy Analysis and Long Run Growth, *Journal of Political Economy*, 99:500-521.
- Romer P., 1986, Increasing Returns and Long-Run Growth, *Journal of Political Economy*, 94:1002-1037.

6. Endogenous Growth: Two-Sector Models

- Barro R. J. and X. Sala-i-Martin, Chapter 5.
- Lucas R. E., 1988, On the Mechanics of Economic Development, *Journal of Monetary Economics*, 22:3-42.
- Mulligan C. and X. Sala-i-Martin, 1993, Transitional Dynamics in Two-Sector Models of Endogenous Growth, *Quarterly Journal of Economics*, 108:739-763.
- Goodfriend M. and McDermott J., 1995, Early Development, *American Economic Review*, 85:116-133.

7. Endogenous Growth: Technological Progress

- Aghion P. and P. Howitt, 1992, A Model of Growth through Creative Destruction, *Econometrica*, 60:323-351.

- Aghion P. and Howitt P., 1996, Research and Development in the Growth Process, *Journal of Economic Growth*, 1:49-74.
- Barro R. J. and X. Sala-i-Martin, Chapters 6 and 7.
- Grossman G. M. and Helpman E., Chapters 3 and 4.
- Romer P., 1990, Endogenous Technological Change, *Journal of Political Economy*, 98:S71-S102.
- Jones C., 1995, R&D-Based Models of Endogenous Growth, *Journal of Political Economy*, 103, 759-784.