

Duke University  
Department of Economics  
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Econ 395: Advanced Macroeconomics (Growth)

This reading list is divided in two parts. The first one covers older material and gives you an overview of the state of the art from the viewpoint of Barro and Sala-i-Martin (2004, MIT Press), *Economic Growth*. As you probably know, their perspective strongly favors 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 more theory-oriented researchers who believe that the neoclassical model fails in countless dimensions and subscribe to a Schumpeterian view of economic growth. A very good textbook that covers a lot of recent results is Aghion and Howitt (1998, MIT Press), *Endogenous Growth Theory*. These two books are a must have for any serious student of growth. Another excellent book is Grossman and Helpman (1991, MIT 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.

As you undoubtedly already know, I am a Schumpeterian – but of a different breed. I depart from the “creative destruction” approach of Aghion and Howitt and propose a “creative accumulation” one, which is more in line with theory and evidence from IO. The course will be heavily biased toward my own views. This is not bad because this is not a “survey” course whereby I teach you the state of the art – in a possibly unbiased and thorough way. This is a research course whereby I teach you how to do research. So, we are interested in discussing questions – to which nobody knows the answer – and possible approaches to finding good answers. There is a term paper. This is a research paper – ideally something that is fit to be submitted to a journal after a lot of editorial work to polish the presentation. Short of this ideal, the paper should be something that with the proper work and dedication can turn into a dissertation. Anything less than this is not good and the grade will reflect it.

Some fantastic new resources recently became available: (1) *Handbook of Economic Growth* (2005, North Holland) edited by P. Aghion and S. Durlauf; (2) *The Economics of Growth* (2009, MIT University Press) by P. Aghion and P. Howitt; (3) *Introduction to Modern Economic Growth* (2009, Princeton University Press) by D. Acemoglu. This is a field that moves very fast and covers a lot of different topics. It would take several pages to list all the references that potentially will come up in our discussions. These three books provide good entry points to a variety of issues, many of which the course does not cover in detail due to time constraints, that you might choose as the focus of your paper.

## **Part I: Things seen from the neoclassical perspective**

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.

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 Economics 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 and the Role of Human Capital

- 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.
- Romer P., 1989, Human Capital and Growth: Theory and Evidence, NBER Working Paper N. 3137.
- Uzawa I., 1965, Optimum Technical Change in an Aggregative Model of Economic Growth, *International Economic Review*, 6:18-31.
- 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.

## Part II: Things from the Schumpeterian perspective

### 1. Some interesting evidence and other issues

- Adams J. and Jaffe A., 1996, Bounding the Effects of R&D: An Investigation Using Matched Establishment-Firm Data, *Rand Journal of Economics*, 27, 700-721.
- Cohen W. and Klepper S., 1996a, A Reprise of Size and R&D, *Economic Journal*, 106, 925-951.
- Cohen W. and Klepper S., 1996b, Firm Size and the Nature of Innovation within Industries: The Case of Process and Product R&D, *Review of Economics and Statistics*, 232-243.
- Malerba F., Orsenigo L. and Peretto P., 1997, Persistence of Innovative Activities, Sectoral Patterns of Innovation, and International Technological Specialization, *International Journal of Industrial Organization*, 15, 801-826.
- Nickell S., 1996, Competition and Corporate Performance, *Journal of Political Economy*, 104, 724-746.
- Jones C., 1999, Growth: With or without Scale Effects? *American Economic Review, AEA Papers and Proceedings*, 89, 139-144.
- Pagano P. and Schivardi F., 2002, Firm Size Distribution and Growth, *Scandinavian Journal of Economics*,
- Wu Y. and Zhang J., 2000, Endogenous Markups and the Effects of Income Taxation: Theory and Evidence from OECD Countries, *Journal of Public Economics*, 77:383-406.
- Ha and Howitt, 2006, A Schumpeterian Critique of Semi-Endogenous Growth Theory, *Journal of Money, credit and Banking*, forthcoming

- Laincz C. and Peretto P., 2006, Scale Effects in Endogenous Growth: An Error of Aggregation, Not Specification, *Journal of Economic Growth*, forthcoming

## 2. Market structure and growth

- Dasgupta P. and J. Stiglitz, 1980, Industrial Structure and the Nature of Innovative Activity, *Economic Journal*, 90:297-293.
- Segerstrom P., 1991, Innovation, Imitation, and Economic Growth, *Journal of Political Economy*, 99:807-827.
- Smulders S. and van de Klundert T., 1995, Imperfect Competition, Concentration and Growth with Firm-Specific R&D, *European Economic Review*, 39:139-160.
- van de Klundert T. and Smulders S., 1997, Growth, Competition and Welfare, *Scandinavian Journal of Economics*, 99, 99-118.
- Peretto P., 1996, Sunk Costs, Market Structure and Growth, *International Economic Review*, 37, 895-923.
- Peretto P., 1998, Technological Change, Market Rivalry, and the Evolution of the Capitalist Engine of Growth, *Journal of Economic Growth*, 3, 53-80.
- Peretto P., 1999, Cost Reduction, Entry, and the Interdependence of Market Structure and Economic Growth, *Journal of Monetary Economics*, 43, 173-196.
- Peretto P. and Smulders S., 2002, Technological Distance, Growth and Scale Effects, *Economic Journal*, .
- Thompson P., 2001, The Microeconomics of an R&D-Based Model of Endogenous Growth, *Journal of Economic Growth*, 6, 263-283.

## 3. Trade and growth

- Baldwin R. and Forslid R., 1998, Trade and Growth: Any Unfinished Business?, *European Economic Review*, 42, 695-703.
- Baldwin R. and Forslid R., 1999, Incremental Trade Policy and Endogenous Growth: A  $q$ -theory Approach, *Journal of Economic Dynamics and Control*, 23, 797-822.
- Baldwin R. and Forslid R., 2000, Trade Liberalization and Endogenous Growth: A  $q$ -theory Approach, *Journal of International Economics*, 50, 497-517.
- Peretto P., 2003, Endogenous Market Structure and the Growth and Welfare Effects of Integration, *Journal of International Economics*,

- Rivera-Batiz L. and Romer P., 1991a, Economic Integration and Endogenous Growth, *Quarterly Journal of Economics*, 106, 531-556.
- Rivera-Batiz L. and Romer P., 1991b, International Trade with Endogenous Technological Change, *European economic Review*, 35, 971-1004.
- Wacziarg R., 1997, Trade, Competition and Market Size, manuscript, Stanford University.

#### 4. Unemployment and growth

- Aghion P. and Howitt P., 1994, Growth and Unemployment, *Review of Economic Studies*, 61, 477-494.
- Daveri F. and Tabellini G., 2000, Unemployment, Growth and Taxation in Industrial Countries, *Economic Policy*, 30, 49-88.
- McKinsey Global Institute, 1995, Employment Performance, Washington.
- McKinsey Global Institute, 1997, Removing Barriers to Growth and Employment in France and Germany, Washington.
- Nickell S., 1997, Unemployment and Labor Market Rigidities: Europe versus North America, *Journal of Economic Perspectives*, 11, 55-74.
- Nickell S. and Layard R., 1997, Labor Market Institutions and Economic Performance, The Labor Market Consequences of Technical and Structural Change Discussion Paper Series, Oxford University.
- OECD, 1994, *The OECD Jobs Study: Evidence and Explanations Part II*, Paris, OECD.
- Peretto P., 2001, Market Power, growth and Unemployment, manuscript, Duke University.

#### 5. Population and growth

- Becker G. and Barro R., 1998, A Reformulation of the Economic Theory of Fertility, *Quarterly Journal of Economics*, 108: 1-25.
- Hansen G. and Prescott E., 1999, Malthus to Solow, Federal Reserve Bank of Minneapolis Research Department Staff Report 257.
- Galor O. and Weil D., 2000, Population, Technology, and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond, *American Economic Review*, 90, 806-828.
- Jones C., 1998, Population and Ideas: A Theory of Endogenous Growth, manuscript, Stanford University.

- Jones C., 1999, Was an Industrial Revolution Inevitable? Economic Growth Over the Very Long Run, manuscript, Stanford University.
- Lucas R., 2002, *Lectures on Economic Growth*, Chapter 5 (The Industrial Revolution: Past and Future), Harvard University Press.
- Peretto P., 1998, Technological Change and Population Growth, *Journal of Economic Growth*, 3: 283-311.
- Connolly M. and Peretto P., 2001, Industry and the Family: Two engines of Growth, manuscript, Duke University.

#### 6. Fiscal policy and growth

- Peretto P., 2001, Fiscal Policy and Endogenous Growth: A Superneutrality Result for R&D-Based Models, manuscript, Duke University.
- Turnovsky S., 2000, Fiscal Policy Elastic Labor Supply, and Endogenous Growth, *Journal of Monetary Economics*, 45: 185-210.
- Easterly W. and Rebelo S., 1993, Fiscal Policy and Economic Growth: An Empirical Investigation, *Journal of Monetary Economics*, 32: 417-458.
- Fischer S., 1993, The Role of Macroeconomic Factors in Growth, *Journal of Monetary Economics*, 32: 485-512.
- Barro R., 1990, Government Spending in a Simple Model of Endogenous Growth, *Journal of Political Economy*, 98:S103-S125.
- Stokey N. and Rebelo S., 1995, Growth effects of Flat-Rate Taxes, *Journal of Political Economy*, 103:519-550
- Mendoza E., Milesi-Ferretti G., Asea P., 1997, On the Ineffectiveness of Tax Policy in Altering Long-Run Growth: Herberger's Superneutrality Conjecture, *Journal of Public Economics*, 66:99-126.