

Macro IV

Economic Growth

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Class: Mo. Th. 9:00-10:20
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Description of the course

The course will introduce students to economic growth theories. We will study the major theoretical growth models and take them to the data. We will also overview the mathematical tools for dynamic optimization in continuous time. Finally, we will cover some topics on development and political economy of growth, if time permits.

Topics

1. Introduction to growth. Stylized facts.
2. Growth accounting.
3. Dynamic mathematical tools in continuous time.
4. The Solow-Swan model
5. The Ramsey model
6. One-sector models of endogenous growth: AK, Human Capital, Learning by-doing.
7. Two-sector models of endogenous growth with special attention to the role of human capital.
8. Models with an expanding variety of products.
9. Models with improvements in the quality of products.
10. Government and growth: spending, taxes and transfers.
11. Economic development and economic growth (*if time permits*).
12. Poverty traps and inequality (*if time permits*).
13. Political economy of growth (*if time permits*).

Textbooks

Main: Barro R. J. and X. Sala-i-Martin, *Economic Growth*, McGraw Hill, 1995.

Supplementary: Romer, D., *Advanced Macroeconomics*, McGraw Hill, 1996.

Jones, Charles I., *Introduction to Economic Growth*, New York: W.W. Norton and Co., 2002.

Acemoglu, Daron, *Introduction to Modern Economic Growth*, Princeton University Press, 2009.

Grades

The problem sets, the midterm exam and the final exam will count for 20%, 30% and 50% of the course grade, respectively.

Notes on the Calendar

Classes are on Mondays and Thursdays, 9:00-10:20 a.m. in room number 207. Midterm is scheduled for Thursday, March 31st.

Supplementary reading

1. Acemoglu, Daron 2003. "Labor- and Capital-Augmenting Technical Change" *Journal of the European Economic Association* 1: 1-37.
2. Aghion P. and P. Howitt, A model of growth through creative destruction *Econometrica*, 1992, LX 323-51.
3. Barro, Robert J., Economic Growth in a Cross Section of Countries, *Quarterly Journal of Economics*, May 1991, 106, 407-443.
4. Robert Barro, Government Spending in a Simple Model of Endogenous Growth, *Journal of Political Economy*, October 1990, p. S103-S125.
5. Robert Barro, Democracy and Growth, *Journal of Economic Growth*, March 1996, p.1-27.
6. Erosa, Andres, Tatyana Koreshkova, and Diego Restuccia 2009. "How Important is Human Capital? A Quantitative Theory Assessment of World Income Inequality" *Review of Economic Studies* 77: 1421-1449.
7. Galor, O. and J. Zeira, Income distribution in macroeconomics, *Review of Economic Studies*, 1993, 60, 35-52.
8. Harrod, R. F., An essay in dynamic theory, *The Economic Journal*, March 1939.
9. Dmytro Kylymnyuk, Lilia Maliar and Serguei Maliar, "Rich, Poor and Growth-Miracle Nations: Multiple Equilibria Revisited", *BE Journals in Macroeconomics, Topics in Macroeconomics: Vol. 7: No. 1, Article 20*, 2007.
10. Jones, Charles I., R&D based models of economic growth, *Journal of Political Economy*, August 1995, vol. 103: (4) 759-784.
11. Jones, Charles I., "Sources of U.S. Economic Growth in a World of Ideas," *American Economic Review*, March 2002, Vol. 92 (1), pp. 220-239.
12. Lucas, R. E., On the mechanics of development, *Journal of Monetary Economics*, July 1988.

13. Mankiw, N.G., D. Romer and D. Weil, A contribution to the empirics of economic growth, *Quarterly Journal of Economics*, May 1992.
14. Ramsey, F., A mathematical theory of saving, *Economic Journal*, 1928.
15. Rebelo, S., Long run policy analysis and long run growth, *Journal of Political Economy*, October, 1990.
16. Romer, P., Increasing returns and long run growth, *Journal of Political Economy*, October 1986.
17. Romer, P., Growth based on increasing returns due to specialization, *American Economic Review*, 77: (2) 56-62. May 1987.
18. Romer, P., Endogenous technological change, *Journal of Political Economy*, October 1990.
19. Solow, R., A contribution to the theory of economic growth, *Quarterly Journal of Economics*, February, 1956.
20. Swan, T. W., *Economic growth and capital accumulation*, *Economic Record*, 1956.
21. Stephen L. Parente and Edward C. Prescott, *Barriers to Riches*, Cambridge: MIT Press, 2000.
22. Edward C. Prescott 2004. "Why Do Americans Work So Much More Than Europeans?" *Federal Reserve Bank of Minneapolis Quarterly Review* 28: pp. 213.