

PRELIMINARY OUTLINE

Nake course (2010/2011)

Dynamic Macroeconomic Theory – Part II (Growth)

Sjak Smulders (UvT)

Aim of the course

This course reviews selected topics in the area of economic growth. Each class will focus on one specific topic. In each lecture, one or two core papers will be discussed in detail and related other papers will be discussed.

Students make five homework assignments, some of which might include numerical exercises. Each exercise consists of two stages. Students have seen the solution key of the first stage before they start the second one.

- Stage #1: technicalities (derivations and calculations)
- Stage #2: insights (students are asked to provide intuition, explain modeling and results, compare to literature, and suggest extensions)

Outline of topics and preliminary reading list (the list is an indication only: a selection will be made and some articles may be added).

0. Introduction: investment and convergence

Topics: Can poorer countries grow faster and catch up with richer ones? Beta and sigma convergence;

Tools: refreshing the basic growth models (Solow, Cass/Koopmans/Ramsey, AK), numerical methods to solve continuous time models, linearization, growth accounting.

- Jones "Sources of US economic growth in a world of ideas" American Economic Review 92 (2002) No. 1, 220-239.
- Acemoglu, Daron 2009 Introduction to economic growth, Princeton University Press 2009.
- Aghion, Philippe and Peter Howitt, 2009, The economics of growth, MIT press 2009.

1. Limits to growth versus unbounded growth

Topics: Exogenous, Semi-endogenous, and Endogenous Growth; Resource Scarcity and Environmental Problems.

- Smulders, Sjak (2010) "Limits to Growth? Key results from a generalized framework of Economic Growth, Environment, and Natural Resources"
- Brock, William A., and M. Scott Taylor (2005). Economic growth and the environment a review of theory and empirics." in Philippe Aghion and Steven N. Durlauf (eds), Handbook of Economic Growth, Volume 1B. Amsterdam: Elsevier.
- André, Francisco and Sjak Smulders "Fueling growth when oil peaks: growth, energy supply and directed technological change" working paper.

2. Structural change and the very long run

Topics: From Malthusian growth trap to modern economic growth; structural change and unbalanced growth.

- Acemoglu, Daron “Introduction to growth” Princeton University Press 2009, Chapter 20.
- Galor Oded and David N. Weil, "Population, Technology and Growth: From Malthusian Stagnation to the Demographic Transition and Beyond," *American Economic Review*, 90, 806-828, (September 2000).
- Galor Oded and Omer Moav, "Natural Selection and the Origin of economic Growth," *Quarterly Journal of Economics*, 117, (November 2002).
- Strulik, Holger and Jacob Weisdorf “Population, food, and knowledge: a simple unified growth theory” *Journal of Economic Growth* 13 (2008), 195–216.
- Piyabha Kongsamut, Sergio Rebelo and Danyang Xie, “Beyond Balanced Growth”, *The Review of Economic Studies*, Vol. 68, No. 4 (Oct., 2001), pp. 869-882.
- Ngai, L. Rachel and Chr. A. Pissarides (2007) “Structural Change in a Multisector Model of Growth.” *American Economic Review* 97, 429-443.

3. Status effects, happiness and income distribution

Topics: optimal saving in the presence of relative consumption and status effects; inequality and growth.

- Cooper, Ben & Garcia-Penalosa, Cecilia & Funk, Peter, 2001. "Status Effects and Negative Utility Growth," *Economic Journal*, Royal Economic Society, vol. 111(473), pages 642-65, July.
- Carroll, Overland and Weil, “Saving and Growth with habit formation” *American Economic Review* June 2000.
- Bill Dupor; Wen-Fang Liu “Jealousy and Equilibrium Overconsumption” *The American Economic Review*, Vol. 93, No. 1. (Mar., 2003), pp. 423-428.
- Galor/Zeira (1993) “Income Distribution and Macroeconomics” *Review of Economic Studies* 60, 35-62.
- Aghion et al (1999) “Inequality and Economic Growth: The Perspective of the New Growth Theories” *Journal of Economic Literature* 37, 1615-1660.

4. R&D-based growth

Topics: Monopolistic competition, Variety expansion model, Quality ladder model, Non-scale models.

- Jones and Williams “Too much of a good thing” *QJE*
- Robert E. Lucas “Ideas and Growth” NBER working paper June 2008.
- Kortum, Samuel S., "Research, Patenting, and Technological Change," *Econometrica*, 1997, 65 (6), 1389-1419.
- Sjak Smulders and Theo van de Klundert (2004) “Monopolistic competition and Economic Growth”, in Heijdra and Brakman (eds) *The monopolistic competition revolution after twenty-five years*, Cambridge University Press.

5. International Trade and Growth

Topics: International diffusion of technology; capital mobility and growth; goods trade and growth.

- Wolfgang Keller, 2004. "International Technology Diffusion," *Journal of Economic Literature*, American Economic Association, vol. 42(3), pages 752-782, September.
- Acemoglu, Daron “Introduction to growth” Princeton University Press 2009, Chapters 18 and 19.

- Acemoglu, Daron and Jaume Ventura (2002) "The World Income Distribution." Quarterly Journal of Economics, 117, pp. 659-694.
- Huizinga, Free, and Sjak Smulders "Varieties and the Terms of Trade" CPB discussion paper 2009-127.

6. Institutions and growth

Topics: Political economy models of growth

- Acemoglu, Daron "Introduction to growth" Princeton University Press 2009, Part IV.