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Lectures on “Savings behaviour, income distribution and growth”

University of Kobe, November 2005

The lectures give a brief overview of the role of savings behaviour for economic growth and the distribution of income. *First*, I will discuss the dynamics of the income and wealth distribution when macroeconomic aggregates evolve as in standard neoclassical growth models (Solow, Ramsey-Cass-Koopmans, OLG models). In these models there is no causal link from income distribution to growth. *Second*, I will discuss the relationship between income distribution and growth in the AK model. In analogy to the neoclassical growth model, we will discuss constant savings rates, and optimal savings with finite and infinite horizons. These models are a starting point for more complicated environments that allow for market imperfections with and without uncertainty.

Basic text

Bertola, Foellmi and Zweimüller (BFZ, 2006), *Income Distribution in Macroeconomic Models* (PUP, forthcoming), Chapters 2 - 6. These Chapters can be downloaded from the website <http://www.iew.unizh.ch/study/courses/ss05/347/> under name “jbins” and password “ars2.cano”.

Closely related papers are

Bertola, Giuseppe (1993), “Factor Shares and Savings in Endogenous Growth,” *American Economic Review* 83, 1184-1198.

Bertola, Giuseppe (1996), “Factor Shares in OLG Models of Growth,” *European Economic Review* 40, 1541-1560.

Bourguignon, Francois (1981), “Pareto Superiority of Unequalitarian Equilibria in Stiglitz's Model of Wealth Distribution with Convex Saving Function,” *Econometrica* 49(6), 1469-1475.

Caselli, Francesco, and Jaime Ventura (2000), “A Representative Consumer Theory of Distribution,” *American Economic Review* 90(4), 909-926.

Chatterjee, Satyajit (1994), “Transitional Dynamics and the Distribution of Wealth in a Neoclassical Growth Model,” *Journal of Public Economics* 54, 97-119.

Kaldor, Nicholas (1956), “Alternative Theories of Distribution,” *Review of Economic Studies* 23, 94-100.

Stiglitz, Joseph E. (1969), “Distribution of Income and Wealth Among Individuals,” *Econometrica* 37(3), 382-397.

Uhlig, Harald, and Noriyuki Yanagawa (1996), “Increasing the Capital Income Tax May Lead to Faster Growth,” *European Economic Review* 40, 1521-1540.

An interesting recent account on the historical evolution of income inequality in Japan is

Moriguchi, Chiaki and Emmanuel Saez (2005), “The Evolution of Income Concentration in Japan, 1885-2002, Evidence from Income Tax Statistics,” *mimeo*, Northwestern University and University of California, Berkeley, downloadable from <http://emlab.berkeley.edu/users/saez/moriguchi-saez05japan.pdf>.

For an overview of empirical evidence on other countries see the articles in *Handbook of Income Distribution* (North Holland, 2000, Anthony Atkinson and Francois Bourguignon, eds.) and recent papers on the evolution of top incomes in various countries by *Thomas Piketty, Emmanuel Saez*, and their co-authors.

Outline

- I. Exogenous savings rates, neoclassical growth and the dynamics of distribution
 - Linear consumption functions (BFZ Chapter 2, Stiglitz, 1969)
 - Microfoundation of exogenous savings rates: HARA preferences (BFZ Chapter 5.3)
 - Nonlinear consumption functions (Bourguignon, 1981)

- II. Evolution of inequality in infinite (and finite) horizon models
 - HARA preferences and linearity of the consumption function (BFZ Chapter 3.1, Chatterjee, 1994)
 - Distributional dynamics: lifetime wealth and welfare (BFZ Chapters 3.2, 3.3)
 - Finite horizon models and the Kuznets curve (BFZ Chapter 5.2)

- III. Distribution and growth in the AK-model
 - Exogenous savings rates (BFZ Chapter 4.1, Kaldor, 1957)
 - Optimal savings, factor shares, and growth (BFZ Chapter 4.3, Bertola, 1993)
 - Factor shares in the finite horizon models (BFZ Chapter 6, Uhlig and Yanagawa, 1996, Bertola, 1996)