Course Outline

1A– Growth Empirics: Facts and cross-country regressions
In this lecture we look at the key facts about growth that emerge from the empirical literature and from the cross-country regressions à la Barro. We also introduce the key concepts of endogenous growth theory.


1B– The AK Model and the Learning by Doing Hypothesis
In this lecture we start looking at “endogenous growth theory”. This theory distinguishes itself from the neoclassical growth models by emphasizing that growth is an outcome of the economic system due to individual choices (of firms and households), not the result of forces outside the model. The simplest endogenous growth model is the AK model, which we will use to illustrate the “key technical condition” needed for permanent long-run growth in the economy. Then we move to the learning-by-doing hypothesis which postulates that growth takes place because of continuous accumulation of new knowledge through past experience. This model will allow us to talk about externalities in growth and “scale effects”.

2A– The Human Capital Hypothesis
We carefully examine Lucas (1988) seminal paper which formalizes the role of human capital accumulation in explaining growth differentials across countries. We then tackle another question that can be analyzed in the context of Lucas model: why (as the neoclassical model would predict) capital does not flow from rich to poor countries? We then analyze the notion of human capital proposed by Nelson and Phelps, which is different from the one intrinsic in the Lucas model. Finally, we consider the problem of double causality between growth and human capital accumulation.

3. ® BSM, chapter 5.

2B–Endogenous Technical Change: R&D
Aghion and Howitt’s and Romer’s contributions to the theory of endogenous growth is that of modeling explicitly knowledge as the output of a research and development (R&D) sector. According to Romer, knowledge is a nonrival good, which creates a growth externality, but it is also an excludable good (through patents and copyrights) which gives incentives to firms to undertake R&D to obtain the related monopolistic profits. The approach of Aghion and Howitt is based
upon the Schumpeterian idea of “creative-destruction”, the competitive process through which some entrepreneurs successfully innovate and by doing so render their rivals’ ideas obsolete. Many models in this class can be either “vertical differentiation” models of quality improvements, where the quality (hence productivity) of a given set of intermediate goods improves continuously and fosters long-run growth.

3. BSM chapter 6
4. Aghion P., and Howitt, P., “A Model of Growth through Creative Destruc-

3– Policy Analysis in Growth Models

In this lecture we analyze an alternative explanation to cross-country growth differentials based on the role of government policy on long-run growth. We study the effect of policy on exogenous and endogenous growth models. The key result is that government policy only affects the level of income per capita in exogenous growth models, while it affects the long-run growth rate of income per capita in endogenous growth models. We also explore a model where government spending fosters growth. Finally, we touch upon the literature on “optimal” capital and labor taxation.


4– A Summary of Other Important Ideas in Growth Theory
In this lecture we survey some other important determinants of growth such as social capital, credit markets imperfections, enforcement institutions, political environment.


5– The IT Revolution, Productivity, and the Stock Market
We take a look at two hot topics in the current debate on growth: the productivity slowdown of the mid 70’s and the demographic transition.


6– Inequality

Since the early 70's income inequality has increased dramatically in the US and the UK. In this lecture we review the evidence, and try to assess what are the causes of this phenomenon. There are 3 leading explanations: skill-biased technical change, globalization and changes in institutions (deunionization and reductions in the minimum wage).
