
BOOK REVIEW

The Economics of Growth
Philippe Aghion and Peter Howitt
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Economists have incessant interest in the subject of economic growth and world growth experience has always been studied by them. The economic growth is a process of managing human and physical resources efficiently such that they add value to total resources of the economy. The techniques of resource management and hence the path of growth has been changing overtime. Recent experiences show that investment in human capital, research and technological innovations push the economies into a fast growth lane. Innovative technology presents fewer nasty side-effects and generates more economic value. Aghion and Howitt analyze such a scenario of growth in their recent publication titled “The Economics of Growth” and attempt to design growth policy.

Professor Aghion is known for his work on economic growth and contract theory. With research mainly focused on endogenous growth theory, he has contributed a lot to competition and growth, financial discipline and dynamics of income inequality. Professor Peter Howitt’s research interests are in the areas of monetary economics, theory of unemployment, and theory of economic growth.

Their present publication is a landmark work on building paradigm of growth thinking, based on neoclassical growth, AK Model, product variety, Schumpeterian Model and Growth Accounting paradigms. The authors attach great importance to empirical evidence for economic performance and growth policies which are context-specific because environments in which households, firms and investors operate differ in terms of opportunities, selectivity and targets. Growth policies are one of the main concerns of the book. It analyzes the effects of liberalizing market competition and entry, education policy, trade liberalization, environmental and resource constraints, stabilization policy, as well as the methodology of growth policy design. The really enlightening parts discussing the dynamic process of growth and development explain such topics as club convergence, directed technical change, the transition from Malthusian stagnation to sustained growth, general purpose technologies and the recent debate over institutions versus human capital as the primary factor in cross-country income differences. On the one hand, the book highlights those sectors where reforms

yield greatest return and on the other, it indicates areas where nations need to know and where the most binding constraint on growth lies.

The book is divided into three parts. Part I presents economic growth paradigms; part II deals with the growth process; and part III focuses on growth policies. All chapters include literature reviews and problem sets. An appendix covers basic concepts of econometrics.

The authors give a nice presentation of features of different growth models in the first part of the book. They argue that neoclassical growth model focus on cross-country convergence, not on long run growth. On the other hand, the AK model (exogenous growth model) gives detail about long run growth but not convergence in the closed economy. In the product variety model and the Schumpeterian model equilibrium innovations are important for determining growth.

In explaining the neoclassical growth model, the authors develop a special limiting case to neoclassical model in which the marginal productivity of efforts to innovate has fallen to zero. The authors admit the usefulness of neoclassical model in analyzing how capital accumulation affects national income, real wages and real interest rates for a given state of technology. The next paradigm is endogenous growth theory in which learning by doing formed the basis of AK model. This endogenous growth theory relies on external accumulation of knowledge that leads to imperfect competition. The authors consider AK paradigm as economist's tool kit.

The alternative models of endogenous growth i.e. Romer's product-variety model and Schumpeterian innovation model have also been discussed along with their limitations. The product-variety model does not represent the role of exit or turnover in the growth process since exit reduces input specialization. Schumpeter features this exit as creative destruction. The main limitation in the Schumpeterian model is the absence of capital. Growth accounting exercises need capital into the analysis. The main contribution lies in introducing workhorse (Hybrid model) model in which productivity growth is included. The authors stress on the measurement problems involved in capital stock and the innovation rate.

After presenting an account of growth paradigms, the book goes on identifying the significance of finance technology transfer, market size and institutions in understanding the actual growth process in the second part. It gives reasons for convergence and non-convergence, role of financial development, expected function of wage inequality and productivity in the process of development and tendency of institutions in growth process. The authors find that wage inequality

in the developed countries is due to market size and innovative technology. They further provide empirical evidence in the drug industry to analyze the wage inequality and non convergence as market-size effects. General-Purpose Technologies (GPTs) are introduced to estimate the sectoral productivities: examples of GPTs are steam engine, electricity, turbo reactors and information technology. These GPTs help in capturing reasons behind productivity slowdown. The authors present growth process into stages as: the transition from Malthusian stagnation to modern economic growth; the transition from growth based on capital accumulation to more innovation-based growth; and the transition from manufacturing to service economy and raises a question, “Do institutions matter for growth?” This leads to policy related issues which are discussed in part three.

The third part draws attention of the reader to growth policy, laying stress on fostering competition and entry, investing in education, reducing volatility and risk, liberalizing trade, preserving environment and promoting democracy as policy tools. The authors examine inverted-U relationship between competition and innovation and confirm the importance of entry to encourage growth. They further investigate existing growth model for education investments and argue that the research education funding plays key role in accelerating human capital accumulation. Volatility and risk are key elements in growth process. The empirical evidence provides negative correlation between volatility and growth in less financially developed countries. This necessitates proper modeling and calibrations. A discussion on the effects of trade liberalization on productivity and innovations is also included in this part of the book. The authors also try to integrate the environmental dimension with innovation and directed technical change to reconcile sustained growth with social development. They lastly examine democracy and economic growth and find them uncorrelated in cross country data; however, evidence suggests that economic growth requires the development of an educated middle class that progress to democracy.

The book raises questions regarding growth economics and proposes tools and models to explain facts both theoretical and empirical. The other books on growth economics, for example Weil (2008), Barro (1995) and Acemoglu (2008), focus on theory but are either too removed from policy and empirical applications or too involved in technical formalities. The *Economics of Growth* provides framework for thinking about linkages of growth to culture and development economics. The authors warn the underdeveloped countries to stop looking to financial markets and multilateral agencies for recipes of economic growth because these are more volatile and more vulnerable to risk. For less developed economies, they recommend countercyclical macroeconomic policies as growth-enhancing.

The book treats culture as a layer of growth, since incentives to innovations and structural and institutional reforms are influenced by individual and collective beliefs, social norms and individual preferences. The authors analyze impact of culture to show negative correlation using cross-country data, quoting various studies including Easterly and Levine (1997) and Knack and Keefer (1997). It is worth mentioning that direct incentives to innovation and capital accumulation require subsidies, tax credits and income tax policies whereas indirect features like organization of financial systems, design of constitutions, and allocation of control rights in government and firms play key role in generating growth.

The book evokes the paradox: growth is working but growth policy is not. It is a useful work for identifying weaknesses in policies and drawing action programs.

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