

Schumpeterian perspectives on innovation, competition and growth

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The 11th International Joseph A. Schumpeter Society Conference was held at the University of Nice - Sophia-Antipolis, France, during June 21–24, 2006. The general theme was ‘*Schumpeterian Perspectives on Innovation, Competition and Growth*’. Recent developments in economics have gone from the recognition of the importance of innovation (early studies of innovation, exogenous growth models) and the exploration of innovation mechanisms (more refined microeconomic and sectoral studies of innovation) to the incorporation of the results of the previous research into economic models (endogenous growth, evolutionary models). An important lesson to be drawn from all this research is that a purely macro-based analysis of growth is not enough. The various mechanisms of innovation creation and diffusion, the importance of agent heterogeneity, of market selection processes, of the internal organization of the firm and of organizational routines, and the obsolescence and the consequent emergence of new types of capital goods are just a few examples of micro-economic phenomena that contribute decisively to macro-economic development. The conference aimed at promoting dialogue among researchers sharing a common interest in the work of Schumpeter. The conference hosted no less than 300 paper presentations. The following subjects provide examples of topics addressed during the conference: the growing importance of knowledge and of human capital; increasing returns and path dependence; the role of

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variety in economic growth; competition and industry evolution; the role of time and importance of business history; the co-evolution of technology and institutions; the economics of agglomeration.

The papers gathered in this issue are representative of the above-mentioned topics. The conference's presidential address by Jean-Luc Gaffard provides an analytical framework in which Schumpeter's ideas are reconciled within a Hicksian model. It investigates the relationship between productivity and growth, on the one hand, and between competition and innovation, on the other hand. The author highlights the difficulties of implementing macroeconomic, industrial and competition policies, which must reconcile the promotion of quantitative growth with qualitative progress. The plenary session by Richard Day raises the issue of the social implications of perennial technical change. This perspective singularizes a new kind of culture, the Technology Evolving Culture, to relate it to urgent matters such as resource exhaustion, international violence and population growth. This broader stance raises concerns about the viability of *our* culture, and questions at the same time the core of ontological values of each one of us.

The remaining papers address important matters, all related to the dynamics of technologies, firms, industries, and developed or rapidly developing economies. The issue of competition and growth is gaining momentum in the economic literature. Pier-Paolo Saviotti and Andreas Pyka revisit the relationship between competition and growth based on the creation of new sectors. Economic growth is the result of both increased efficiency in existing sectors and increased variety due to the creation of new sectors. In the same vein, the paper by Thanh Le develops a dual economy endogenous growth model to consider the effects of market structure and innovation on the growth of the economy. The author shows that growth is a positive function of market power in the innovative sector with monopolistic competition, but a decreasing function of market power when goods are homogeneous. The topic of structural change is raised in several papers. The paper by Tommaso Ciarli, Riccardo Leoncini, Sandro Montresor and Marco Valente simulates how the organization of industry is determined by the intertwining of innovative search and organizational change in the production of complex products. The paper by André Lorentz and Maria Savona looks at both technical change and structural change as determinants of economic growth and develops a model which formally accounts for the observed tertiarization of modern economies. The authors provide a valuable and critical insight on the "Baumol disease" explanation of tertiarization. A different framework is found in the contribution of Giovanni Dosi, Giorgio Fagiolo and Andrea Roventini. The authors develop a model of an economy composed of two vertically linked sectors producing heterogeneous machine tools and homogeneous consumption goods. The results are consistent with several stylized facts, such as macroeconomic fluctuations and heterogeneity in firm size.

The relationship between innovation and growth is investigated in Gilles Koléda, who highlights the implications of using patent heights as an instrument to promote innovation and growth. He shows that the novelty requirement in any new patent document can be used as a policy tool either to promote innovation or to reinforce competition. The issue of the ambiguous relationship between technical change and wage inequality is taken up by Maurizio Iacopetta. He shows formally that, whereas product innovation widens wage inequality, process innovation favors a reduction of

inequality. Looking at wage differentials and country-specific regulation, Yılmaz Kılıçaslan and Erol Taymaz investigate the impact of labor market institutions on industrial dynamics over a panel of 44 countries in the 1965–1999 period. They find that countries with high regulations (on conditions of employment, labor administration and professional training) achieve higher levels of sectoral growth. The last three papers are empirical investigations of the various linkages between innovation and growth, at the individual, sectoral and national levels, respectively. The paper by Erik Stam, David Audretsch and Joris Meijaard explores empirically the determinant of ‘serial entrepreneurs’, as opposed to one-off entrepreneurs. They show that renascent entrepreneurship is highly pervasive and is determined by entrepreneurial human and social capital. Carolina Castaldi and Sandro Sapio investigate the volatility of sectoral growth rates for a set of OECD countries, to show that inter-firm relationships, market concentration and cross-sectoral linkages play a major role in sectoral growth. Francesco Crespi and Mario Pianta look at the empirical diversity in innovation patterns and link it to the productive efficiency of six European countries. They provide evidence of two types of innovation strategies across countries, one favoring technological competitiveness, the other supporting cost competitiveness.

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