


Bettina Rockenbach, University of Erfurt, Germany

DOI 10.1007/s00712-006-0237-z


The volume edited by Quadrio Curzio and Fortis is an interesting collection of selected essays presented at two recent international conferences organized by Fondazione Edison with the scientific collaboration of Accademia Nazionale dei Lincei.

The aim of the contributions is to better understand the nature of technological change in Europe and to highlight the role of network and institutions in economic development and growth.

The book has two sections: in the first one, the four chapters provide a more historical and theoretical perspective on the topic; in the second part, the seven remaining contributions present some European cases of various successful innovative public policies.

Contributions are roughly different in structure and approach, nevertheless they provide a complete framework on the topic allowing the reader to select the chapters which might be more relevant for him/her.

The historical perspective provided by Mokyr is truly interesting. The Industrial Revolution is analyzed considering economic, technological, cultural and social aspects, underlying that technology – to be effective – must be connected to a social dimension and a socially “useful” knowledge (defined as the combination of all the pieces of individual knowledge). To do this all the possible access costs to transfer knowledge are considered. The
main lesson from this comprehensive chapter is that the cultural, social and, I would add, educational dimension of people is a determinant element in affecting the efficient adoption of new technologies. I would also suggest a possible endogenous dimension of the phenomenon: human capital and social structure could actually induce the introduction and adoption of new technologies. Therefore – in terms of policy implications – it could be possible to support – by the means of well-trained human capital – a faster adoption of new technologies to reach a “critical mass” and accelerate the technological change reducing the gap from the technological frontier.

Another hot issue is whether it is reasonable to expect that technological progress and connected knowledge translate in sustained economic growth. Longhi faces this problem considering also the geographical dimension of production and recalling six different organizational production structures of firms where technological change might alter in a significant way performance and location. Of the six, four pre-globalized structures have been evolving due to technological change (some descriptive examples are provided); unfortunately the two remaining structures – strictly connected to innovation (Technological districts and Technopoles) – are not extensively analyzed.

More in detail, a national example is described by Braunerhjelm who analyzes the Swedish highly-innovative case (in another chapter Lindberg compares Sweden and Finland with respect to the Barcelona target of 3% R&D/GDP, as recalled also by Andreta) suggesting that even a knowledge-driven economy is not sufficient to induce permanent positive economic effects. There is a lack of efficient translating mechanisms such as entrepreneurship and a mobile workforce: therefore micro policies might help this process, while macro policies alone might not be enough (future research should deepen this result).

A relevant problem linked to knowledge is the risk of quick obsolescence which makes the context even more uncertain. In this framework, educational and training structures turn out to be important. In this respect, I would underline the need of a deep thinking on which educational feature is better: a general or a vocational one. Some literature suggests that workers are better off with general rather than vocational education, because their skills are in this case less likely to be rendered obsolete by technological progress. So what is the role of high education institutions?

David provides interesting insights on the role of universities in Europe in terms of education and, especially, in term of research analyzing the well-known problem of the relationship between research, innovation, appropriability and intellectual property. Even Bianchi and Ramaciotti, presenting the Emilia-Romagna case in Italy, recall the problem of universities which still