Chapter 14
Innovation Policy, Competitiveness, and Growth: Towards Convergence or Divergence?

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ABSTRACT

This chapter focuses on the actors of knowledge, innovation and entrepreneurship, as comparative advantages towards regional sustainable development. The chapter describes the analytical framework in which technical change, innovation and entrepreneurship activities are considered as among the most important factors influencing sustainable economic development, both in national and regional level. Within this analytical framework, the chapter aims to provide a clear understudying of the main related questions summarized in the following: To which extent economic development depends on the presence of a network favorable to knowledge, innovation and entrepreneurship, based on the endogenous development capabilities? How could the level of regional innovation activities be enhanced? How could the effect of innovation activities on regional development be estimated? What is the relative position of a region as far as development and innovation competitiveness are concerned?

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INTRODUCTION

During past decades, major improvements in productivity and development have been interpreted as a movement towards a knowledge-based economy. In today’s globalised markets new businesses and corporations have emerged, trying intensively to find new investment opportunities and new channels for their products. Significant changes have taken place and firms all over the world are described taking part in a race seeking the most appropriate and effective ways that could provide them with the strengths and opportunities necessary to obtain and sustain a competitive advantage over their rivals. Currently, output and employment are expanding fast in high-technology industries such as computers and electronics, as well as in knowledge-based services such as financial and other business services and more resources are spent on the production and
development of new technologies, in particular on information and communication technology. Consequently, globalization and worldwide competition has shifted the comparative advantage of countries and regions towards the factor of knowledge and innovation, where productivity based on endogenous development capabilities plays a rather important role, as far as growth and competitiveness enhancement are concerned.

Regarding this development race, productivity enhancement is a major element towards economic growth and development. Economies increase their productivity in two ways—micro and macro. Microeconomic gains take place within an enterprise as it invests, trains workers, innovate and compete. Macroeconomic gains occur when the overall economy reorganizes and shifts resources so they produce more than before. Within this micro and macro framework, productivity has always played a leading role in raising economic growth and development, by boosting output, improving quality, and saving time and other resources. As companies and workers become more efficient, the economy reallocates resources to more productive uses, either in existing companies or new ones. As the market recycles workers and other resources, the economy grows. The payoff from productivity growth could be summarised in higher GDP, more leisure time, better working conditions, new and improved products, more variety, greater safety and security, as well as cleaner environment.

Figure 1 represents these linkages among the economic and entrepreneurial practices aiming to achieve and sustain positive results towards development and growth. The combination of the three practices target to the enhancement and convergence as far as productivity, competitiveness and development process are concerned.

Within this framework, development and innovation consist two of the core subjects both in economic and political debates and analyses. Respectively, in the modern economy era, there is an increasing interest in the contribution of knowledge in the sustainable long-term economic growth, taking into consideration the need that the modern capitalistic competition forces the enterprises to import technological innovations, that increase the productivity, or to adopt other strategies of organization for the growth of their activities and their purchases.

**INNOVATION AND SUSTAINABLE GROWTH: AN INSEPARABLE RELATIONSHIP**

The developments in the theory of economic growth have renewed the interest for the role that the innovation plays in the development process, underlining the interaction between the investment in innovative activities, the technological change and sustainable economic growth. The base for this analysis was provided by the main sources of economic growth:

- Increase in the productive base in order to increases the productive possibilities of the economy within a time period (as, for example though increases in total work force or Gross Fixed Capital formation)
- economies of scale that are related with increase in the factors of production
- technological progress

From an economic analysis point of view, the theoretical framework of the effects of innovation on the economic efficiency, productivity and growth is based on endogenous growth theory developed by Solow, 1957, Arrow, 1962, Romer 1986 and 1990, Lucas, 1990 and 1993. Endogenous growth theory claimed that not only the accumulation of capital, but mainly the development and accumulation of knowledge and technological change leads to increased and sustainable growth.

Endogenous growth theory, as represented by Romer (1986), takes innovation as an endogenous variable which can explain the different national growth rates and why economies, even with dif-