

Chapter 17

Significance of Innovation Policies: Lessons for Countries Caught in the Middle Income Trap

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ABSTRACT

Over the past 50 years, low-income countries have increased their national incomes by shifting their production from the agricultural sector in which the efficiency of labor and capital is low to the manufacturing sector in which efficiency is higher. However, underemployment in the rural regions has decreased in parallel to the attainment of the middle-income level by these countries, wages have increased, and the level of international competitiveness has decreased. The countries which could not increase the level of productivity through innovation could not succeed in passing from the middle-income to the high-income level. Therefore, these countries have fallen into the middle-income trap because of their failure to compete with the developed countries regarding innovative products, which require a high level of skill, and with the low-income countries where the labor cost is low regarding labor-intensive products. The purpose of this study is to discuss the policy alternatives required to be followed by developing countries and to expose the inadequacy of the neoclassic approach on which the industrialization strategy is based in the light of the experiences of the countries that have discarded the middle-income trap. The eastern Asian countries that have managed to exceed this middle-income trap have based that achievement on effective industrial and technological policies. For that reason, an examination of the experience of especially Asian countries is very important from the point of view of the countries that intend to get rid of the middle-income trap.

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INTRODUCTION

The growth performance decreases experienced through the impact of the global crisis increased interest in the determinants of long-term growth. In the extant economic literature, the debate regarding whether or not China's growth performance it has exhibited in the last 10-year period will slow down in the crisis period, the concept of the "middle income trap" has hit the agenda of development economics (Eichengreen, et. al 2011; Economist, 2011; Felipe et al. 2012). However, it is observed the Latin America countries like Brazil, Argentina, Mexico, and Chile, North African countries such as Tunisia and Egypt, and developing European countries like Romania, Poland, and Turkey have long been within this trap (Paus, 2011). For example, Gill and Kharas (2007) have reached significant findings regarding the growth patterns in the centennial growth performance of eight Latin American countries and then Asian economies between 1900 and 2000. During this centennial period, while the Latin American economies failed to change their position of being the countries with middle incomes, five Asian economies showed the transition from the position of a low-income country to a middle income country and subsequently to a high income country status, thus emerging from the middle income trap. When the achievement experiences of the Asian countries for the same period is scrutinized, it is observed the most effective factors are the industry, technology, and innovation policies applied (Freeman, 1987; Shin, 1996; Lall, 2000).

Within the scope of the study, the role of the innovation systems of the countries which constitute a technological climb-based industrial capacity in which innovation systems become more effective in their process of utilizing such capacity will be examined systematically. The objective of this study is to discuss the policy alternatives of the economies mired within the middle income trap they must follow to be rid of

this trap and to exhibit the insufficiencies of the neoclassical approach which is the source of the current industry strategy. Innovation policies are the tools of policy that are derived differently from the technology policy suggested by neoclassical economics from the innovation system theory and that directly focus on innovation process. The field of neoclassical economics approve the technology policies differ from the fields where the system approach acknowledges the governmental interventions as legitimate. While the neoclassical approach focuses primarily on scientific and technological policies, they attach priority to the promotion of science (discovery). The innovation system approach recommends the direct promotion of innovation processes via innovation policies.

The study consists of three main sections. In the first section, the middle income trap phenomenon is explained. In the second section, the theoretical framework of the technology and innovation policies of Asian countries which specifically showed successful performance underlying such performance will be developed. The neoclassical economics foundations of the industry and technology policies that have been a widespread discourse in the entire world will be searched and the insufficiencies of such approach will be assessed. Lessons that could be perceived regarding developing countries will be discussed in the Results section.

Middle Income Trap

In the economical development process, there are multiple traps developing countries must overcome. Underdeveloped countries which initially have low income levels are those nations encountering difficulties to invest due to the insufficiency of their savings. Insufficient investments in this period are defined as a low-level equilibrium trap which limits the increase of revenues and since the income level is at a low level, savings are also at low levels resulting in low investment (Nelson, 1956). This condition

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