Chapter 69
Green Convergence in Emerging Nations:
The Determinants and the Possibilities

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ABSTRACT

Convergence in growth for emerging nations has always been an important topic of economic discourse. This study looks into the growth convergence of selected basket of emerging nations towards selected basket of developed nations using Autoregressive Distributed Lag (ARDL) framework. The findings of the study show that not only the economic indicators of the respective emerging nations are responsible towards narrowing the per capita GDP differential between developed and emerging nations, but also the differentials of economic indicators between developed and emerging nations are important. This helps towards answering the paradoxical question why in spite of taking the best measures the developing countries are unable to match up with their developed counterparts' per capita GDP. Finally, the study shows significant positive relationship between GDP growth rate and carbon dioxide emission.

INTRODUCTION

The theory of economic convergence suggests that economies with similar population growth and technological knowhow will exhibit similar levels of productivity and per capita GDP in the long run. Therefore, countries with lower capital stock will grow more rapidly than countries with higher capital stock, closing the income gap eventually (Mankiw, 2012).In recent years, convergence of markets in the emerging nations has garnered significant attention. However, empirical studies have repeatedly shown less than desired results of convergence. The explanations for this phenomenon are a much debated topic.

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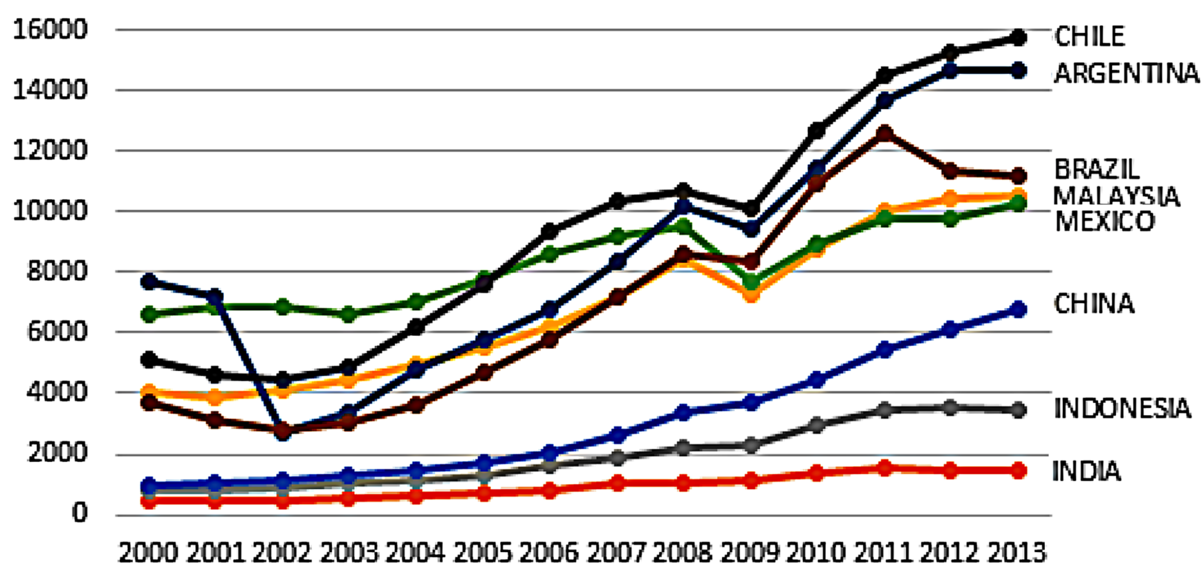
Jeffrey Sachs (1997) blamed the trade policies of developing countries for the slowdown off convergence, while the Lucas Paradox (1990) tried to explain the non-convergence with the fact that capital doesn't move from developed countries to developing countries. According to a 2011 study by investment firm BlackRock, "by 2020 the investment world is expected to be spending even more time on the emerging markets … developments in Beijing, Mumbai and Sao Paolo will … require as much study as those in New York, London and Frankfurt" (Blackrock Investment Institute, 2011). However, more recent studies have found evidences of slowdown of the emerging markets in the catching-up game (Amaya & Iwanicki, 2014) in the short run. However, the possibility of long run convergence could not be refuted. Therefore, it would be interesting to examine from both an academic as well as investment perspective to identify the reasons behind the convergence performance of emerging markets.

In Figure 1, the per capita GDP of eight emerging nations (four Asian economies: India, Indonesia, Malaysia and China and for Latin American economies: Mexico, Argentina, Brazil and Chile) for 2000-2013 are plotted. The plot shows a clear trend. Starting from 2000, the Latin American economies have experienced a higher per capita GDP than the Asian economies except Malaysia. Of the four Asian economies, India, Indonesia and China started from less than a thousand dollars of per capita GDP in 2000. Of these three, the per capita GDP of India has grown the slowest over the next 13 years while China has grown faster than these two, especially after 2006. However, a clear outlier in the Asian economies is Malaysia. Even in 2000, the per capita GDP of Malaysia was significantly higher than that of India, Indonesia and China. While in 2000, all the three nations had a per capita GDP of less than $ 1000; Malaysia was enjoying a per capita GDP of slightly more than $ 4000. Malaysia is clearly in the league of the Latin American economies of Mexico, Argentina, Brazil and Chile. In fact, after 2009, Malaysia's GDP has grown similar to Mexico. Among the Asian economies, only China has been successful in significantly closing the per capita GDP Gap with the Latin American economies.

In figure 2, the per capita GDP for eight developed countries, UK, USA, Belgium, Japan, Canada, Germany, France and Switzerland has been plotted. The figure shows that the per capita GDP of the developed countries have moved more or less similarly over the years.

Figure 1. Per capita GDP across emerging nations: 2000-2013



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