Economic growth in MENA countries: Is there convergence of *per-capita* GDPs?

M. Simona Andreano [a], Lucio Laureti [b], Paolo Postiglione [c,*]

[a] *Universitas Mercatorum, Via Appia Pignatelli 62, 00178 Rome, Italy*
[b] *LUM "Jean Monnet University" SS 100 Casamassima (BA) and Jean Monnet Permanent Course – European Commission, Italy*
[c] *"G. d'Annunzio" University of Chieti-Pescara, Department of Economic Studies, Viale Pindaro 42, 65127 Pescara, Italy*

Abstract

In the last years a central issue in economic growth debate has been represented by the convergence problem. Many empirical economists have noticed that per-capita GDPs of poor regions tend to converge to those of the richer ones. This tendency is more evident in the nineties when the globalization phenomenon was born. In this paper we use a conditional β-convergence approach to evaluate the economic growth of the Middle East and North Africa (MENA) countries. In particular, we use a set of state, environmental, and economic covariates as conditioning variables of the model. The MENA region is daily at the center of economic and political debate, and this stylized fact represents a further source of interest. Our data set is constituted by 26 countries, and ranges from 1950 to 2007.
© 2013 Society for Policy Modeling. Published by Elsevier Inc. All rights reserved.

1. Introduction

There are very large differences in per-capita GDPs across countries today. The richer countries show a per-capita GDP more than thirty times larger than that of the poorest countries in terms

* Corresponding author. Tel.: +39 08545083229.
  E-mail addresses: s.andreano@unimercatorum.it (M.S. Andreano), laureti@lum.it (L. Laureti), postigli@unich.it (P. Postiglione).

of Purchasing Power Parity (PPP) adjusted dollars.[1] For example, in 2011 per-capita GDP in the United States (US) was $48,442 (valued at current international dollars, World Bank source), while it was $8442 in China, $3650 in India, $2532 in Nigeria, and much lower in some other African countries such as Chad, Ethiopia, and Mali. The gap is obviously larger when there is no PPP adjustment. It is worth noticing that high-income levels generally reflect high standards of living. In fact, per-capita GDP is usually used as a proxy for the quality of life in different countries, but we are aware that material wealth is only one of many aspects of life that enhance economic well being. For example, recent estimates suggest that longevity has been a quantitatively important component in welfare in the US during the twentieth century (Nordhaus, 2003). So far, understanding the motivation of the presence of these persistent economic differences among countries represents one of the most important challenges facing social sciences.

During the last years, the analysis of economic growth has become increasingly popular in the macroeconomic literature (Abramovitz, 1986; Barro & Sala-i-Martin, 1995). Many empirical economists, in agreement with Solow's neoclassical growth model (1956), have observed that per-capita GDPs of poor regions grow more quickly than those of the rich ones, in other words poor countries tend to finally catch up rich ones (Barro & Sala-i-Martin, 1992). This phenomenon, known in literature as economic convergence, implies a long run tendency to equalization of per-capita GDPs.[2] The assessment of this empirical tendency represents a matter of primary relevance for policy makers (Islam, 2003). According to the classification originally proposed by Galor (1996), three different definitions of economic convergence can be identified: absolute convergence, conditional convergence, and convergence clubs. Absolute convergence is reached when all economies converge toward the same steady-state (in terms of per-capita GDP growth rates). However, the steady-state may depend on features specific to each economy, in which case convergence will still take place, but not necessarily at the same levels. This is the case when per-capita GDP depends on a series of determinants such as, for example, factor endowment or institutions, which can vary from one economy to another even in the long run. Convergence is then said to be conditional. Finally, the concept of convergence clubs is linked to the existence of multiple, locally stable, steady-state equilibrium to which economies with similar characteristics converge (Durlauf & Johnson, 1995). Recently, the interest of empirical researcher focuses on the investigation of the phenomenon at the regional level, namely the analysis of economic convergence on intra-national scales. More recent studies introduce a spatial dimension into the formulation of the problem, see, for instance Rey and Montouri (1999) for an introduction of the problem, and Postiglione, Benedetti, and Lafratta (2010) and Postiglione, Andreano, and Benedetti (in press) for some very recent contributions to the debate.

Alternative definitions, as those based on the concept of stochastic convergence, have also been introduced in the literature (Evans & Karras, 1996). To overcome some problems linked with the analysis of economic convergence, such as endogeneity, heterogeneity, and omitted variables, other techniques, like panel data (Islam, 1995; Laureti & Postiglione, 2005), and probability transition matrices (Quah, 1997), have often been used.

The purpose of the present paper is to analyze the economic growth in the Middle East and North Africa (MENA) countries, with particular emphasis on the convergence process in terms of long-term trend of per-capita GDPs. The economy of the region has been heavily influenced by peculiar

---

[1] Per-capita GDP based on purchasing power parity is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. For an application to Mediterranean countries see Laureti (2001).

[2] See Laureti (2008) for an analysis of economic convergence in Mediterranean countries.