Chapter 4
Convergence in GDP

4.1 Introduction

Interest in convergence, that is to say whether poor countries or regions tend to grow faster than rich ones, is relatively recent. The underlying rationale of convergence however is not new, and in closed economies can be easily traced to the premise of diminishing returns to capital, whereas in open economies this premise is reinforced by the movement of capital and technology from rich countries to poor, and of labour from poor countries to rich. Myrdal’s (1957) cumulative causation and Hirschman’s (1958) agglomeration mechanisms and “growth poles” in which the “spread” or “trickle down” effects dominate the “backwash” or “polarization” effects are earlier formulations or variations of the same growth process.

In this process, irrespective of the temporal sequential interchangeability of leaders and laggards, the growth rates of previously laggard entities are seen to surpass in time the growth rates of earlier leaders, until real per capita income disparities across regions or countries are eventually reduced. Due to labour mobility restrictions, crucial factors in this long run levelling process are movements of capital and technological transplants, manifested through replacements of outdated capital stocks in lagging countries by those embodying the most advanced technology (Abramovitz 1986). In the present universe of expanding knowledge and information, technological transfers are relatively easy but they do not alone guarantee increases in productivity unless accompanied by major investments in human skills, in organization and management (Nelson and Wright 1994). Such major investments are viewed as prerequisites...
to successful restructuring, which in our context has broad economic and social dimensions.¹

Ultimately convergence is a homogenizing process often induced by either intra- or inter-country social engineering policies. In the former, transfer payments and tax incentives constitute the primary regional equalization policies, whereas in the latter global competition transforms the socioeconomic scenery through direct investment embodying new technology in advanced capital goods.² The contribution of competitive forces as convergence factors have been recognized by Gershenkron (1952), Kuznets (1973) and Abramovitz (1986) in their corresponding analyses of late-industrialization, growth patterns, and interchangeability of industrial leadership over time. A multiplicity of social and political factors, under the name of “social capability”, relating to characteristics of people, their attitudes toward cooperation, competition, trust, respect for institutions, also partake in the convergence process whether identified as culture comprising the totality of inherited artifacts, technical processes and mental construct (Ruttan 1988), or reflecting differences in human attitudes which essentially mirror different stages of economic development (Johnson 1963).³ Social capability retains a generality that prevents accurate quantification, and only rough approximations of its impact on convergence are given in empirical studies through gross estimates of education attainment, and government instability.⁴

Per capita income equalization either within or among countries is rather unattainable if not totally unrealistic. Some degree of inequality must be taken for granted and the conditions responsible for such a state of affairs be sought in the broad spectrum of heterogeneity of regional or country socio-economic environments and in differences in economic policies. Such heterogeneity is not difficult to encounter when large sample sizes are examined or when the time coverage is extended over long periods of time.⁵ Despite reductions in cultural fragmentation caused

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¹ Advanced knowledge and technical progress are admittedly difficult to model, yet economists agree that both are powerful engines of growth which exert their principal impact when embodied in human and physical capital (Maddison 1994).
² Investment in general is an important determinant of growth, but more important, according to DeLong and Summers (1990), is investment in machinery and equipment that embody the most recent technological advances.
³ The term “social capability” was first coined by Ohkawa and Rosovsky (1973), and subsequently used by Abramovitz (1986, 1990), Baumol (1986, 1994) and many other writers.
⁴ Baumol et al. (1989) and Ram (1991) examined statistically the impact of education, while Barro (1991) and Barro and Lee (1994), further to education examined the impact of government instability on convergence in large samples of countries.
⁵ Convergence was identified by Alam (1993) for 16 developed countries in the postwar period. Convergence of real per capita income was rejected by Bernard and Durlauf (1990) for 15 OECD countries over the period 1900 to 1987. For other studies see De Long (1988),