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Regional Disparities in the Development Process: The Theoretical Perspective and the India Experience

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Abstract:
Development process often emerges in a few regions or pockets, and then generally gets spread to other parts over time. But whether developed regions continue to remain ahead of the rest of the regions of a country or regions tend to converge in their development attainment over time is a much debated issue in development economics. Whilesome theories suggest increasing regional disparities over time, neoclassical theories suggest that diminishing returns tend to produce convergence. In view of this debate the empirical evidence of whether regional development has tended to increase or decrease assumes significance. The present paper first presents a review of the theoretical debate. With the theoretical backdrop in place, the empirical studies on India's experience are discussed.

Keywords: *Region, regional development disparities, convergence, divergence, resource, India*

1. Introduction

Development is universally desired, but often defines a clear unambiguous definition. In economics, the term "development" is broadly understood as a process of persistent improvement in the physical quality of life for all sections of population in the society. However, all sections of population often cannot access of fruits of economic growth underlying a development process in an equitable manner. Both differences in the beginning and differential rate of access to fruits of development may result in continuation & exacerbation in the levels of living of different people resulting in manifestation & magnification of economic disparity.

The conventional measure of development & disparity is often based on same set of parameters. For instance, development measures are often based on per capita income (PCI), attainment of health & education, extend of access to basic services such as connectivity, power, clean environment etc. In the same vein, shortfalls in the same set of indicators can be & often are used to capture developmental disparities.

Developmental disparities may manifest across income categories, social categories such as race, caste, religion and gender, and/or space such as continent, countries and region within countries. Disparities of any type has the potential of fomenting discontentment, which can get mobilized into disruptive forces, endangering peace and order in the society and the development process itself, hence developmental disparities had attracted the attention of social-scientist & policy makers, globally and within countries.

Since scope of the subject of developmental disparities is quite wide it is perhaps not desirable to attempt to address all types of disparities within a scope of a single paper. The present study accordingly focuses on regional development disparities.

The present paper has the limited goals of reviewing the existing theories of economic disparities across regions. In light of this discussion the paper also attempts to examine regional development experience within India as captured in available empirical studies on the subject.

The paper is organized into four sections. Apart from introduction, section 2 deals with the review of theoretical literature on regional development disparities. Section 3 discusses empirical review of literature on regional development disparities in Indian context and section 4 draws conclusions.

2. Regional Developmental Disparities: A Theoretical Perspective

There are sharp differences in the theoretical opinions on the issue of development disparity and has been debated extensively by the scholars in terms of theory as well as empirical investigators.

The neo-classical theory is a theory of convergence. The neo-classical school is a believer in market forces and flexible prices. Its perspective on regional developmental disparities is drawn from solow's growth model. One implication on Solow's growth model is that the countries with different levels of per capita income over time tend to converge to one level of per capita income. The conclusion is based on the assumption that output per labor is subject to diminishing returns to capital per labor. By this assumption in developed countries with higher capital per labor, per capita income tends to grow at a slow rate than in developing countries which have lower capital per labor. Although the convergence hypothesis was originally about international disparities in per capita income, the hypothesis is often tested for disparities of inter-regional development levels especially within large countries like India, China etc. Lack of unanimity of empirical support for the convergence hypothesis lead to emergence of two alternative interpretation of convergence: Unconditional convergence and conditional convergence, technically also referred to as–α (alpha) convergence and β (beta) convergence. Conditional convergence is based on the idea the full convergence may not be attained because of differences in socio economic, cultural and other initial conditions among country's/regions. But once such differences are controlled for convergence may be seen. Bernard and Durlof (1966) capture the hypothesis as "differences in contemporaneous per capita income between any pair of regions will be transitory so long as the two regions contain identical technologies, preferences and population growth". The neo-classical pro-convergence view is bolstered by Samuelson (1948) by bringing in the role of factor mobility and trade, the movement of labor from low-wage regions to high wage regions should narrow wage differences by reducing labor supply in the depressed regions and increasing labor supply in more prosperous regions. Likewise, the movement of labor from high unemployment regions to low unemployment regions should narrow unemployment differences. The migration of capital should have the same equilibrating tendency, moving to, or locating in, regions where wage rates are low and the rate of profit high, assuming an inverse relation between the wage rate and the profit rate. Trade between regions is a substitute for migration and will lead to factor price equalization.

In contrast to neo-classical perspective of disappearance of regional disparity through operation of natural economic forces there are number of school of thought which argue that regional disparities tend to persist or addressed reduce too slowly and hence policy interventions are needed to address such disparities. Myrdal (1957) provides the counter argument, in the form of his cumulative causation hypothesis. He argues that due to industrialization and gain in productivity, rich regions benefit more. He does not deny that growth spreads to poor regions through access to larger markets and trade opportunities. However, he insists that gains are offset by stronger backwash effects generated by deteriorating terms of trade resulting from high productivity gains in industrialization in rich regions. Therefore, the theory predicts divergence in regional incomes.

The new economic geography school takes the argument further and explains the role of growth engines like external economies of scale, agglomeration effects and technological advancements in clustering growth to a few highly competitive regions in the economy (Krugman, 1991). According to Krugman, in a world of imperfect competition, international trade is driven as much by increasing returns and external economies as by comparative advantage. Furthermore, these external economies are likely to be realized at the local and regional scale than at the national or international level. To understand trade, therefore, Krugman argues that it is necessary to understand the processes leading to the local and regional concentration of production.

Myrdal's and krugman analysis also resonant with Hirschman's. Capello and Nijkamp (2009) summarize Hirchman arguments in the following word *"Hirschman distinguished two types of spillover effects associated with growth pole theory: backward linkages and forward linkages. The former effects are associated with activities that provide inputs to economic activities, drawing them towards the location where the clients are. The latter concern activities that use outputs by new activities or expanding existing activities that draw them towards locations where these existing activities are already (over-)represented. This can turn into backwash effects that are usually unanticipated, occurring when the growth pole attracts so much attention and cumulative growth that it drains the surrounding areas. Migration of workers towards the pole and the concentration of investment capital in the initial centre of innovation initiate the emergence of high-level urban services in the growth pole. This can then lead to a further polarization of economic growth, restricting growth elsewhere. The existence of spread effects is based on the belief that the ongoing growth of the core location (the growth pole) will eventually lead to diseconomies of scale due to congestion and the appreciation of factor costs."*

An alternative perspective of persistence of development disparities has been put forward in the form neo-colonial dependence theories. This school of thought is an outgrowth of Marxist thinking. According to this school rich nations/regions are intentionally exploitative or unintentionally neglectful or development aspirations of the poorer nations/regions. Ina system dominated by such unequal power relationships between the centre (the developed countries/regions) and the periphery (the Less Developed Countries/regions) renders attempts by poor nations to be self-reliant and independent difficult and sometimes even impossible.

Another strand of literature on this subject is built around the observation that regions endowed richly with natural resources sometimes tend to lag behind in development relative to the regions that are not so well endowed. Some of the faster growing economies over recent decades are regions with little natural resource endowments, whereas some countries with enormous natural resource endowments suffer from poor economic performance. This phenomenon of the negative correlation between resource abundance and economic growth is called the resource curse. It was formally presented by Auty in 1993.Some economist argues that whether resource abundance is a curse or not depends on the institutional quality of the resource-rich region. According to them, economic development will not be cursed in the presence of higher institution quality.

3. A Review of Empirical Investigations on Regional Developmental Disparities in India

Given the divergence in the theoretical literature on the cause of and trends in development disparities across countries and regions, it is instructive to look into the empirical studies on the subject. Such study may throw light on whether development levels across regions tend to converge on development disparities tend to persist or even widened. Given the diversity of geographical, institutional and socio-cultural features around the globe or even within a country like India, a categorical answer may not be available. Nonetheless the literature may be useful for gathering insight into development dynamics from a regional disparity perspective. The following section is a review of some such studies related to India.

India has experienced wide regional imbalance in achievement of development goals. Whether such imbalances have widened over the years have been studied by the Williamson (1964), Dhar and Sastry (1969), Rao (1973), Gupta (1973), Raj (1990), Dholakia (1994), Ahluwalia (2000), Jha (2000), Kurian (2000), Majumdar (2004), Nayyar (2008), Kalra & Sodsriwiboon (2010) etc. Williamson (1964) investigated the pattern of regional inequalities in the 1950's and concluded that the decade was marked by increasing inequalities. This was however contested by Dhar and Sastry (1969) who using power consumption as a proxy for industrial development found a tendency towards narrowing down of inter-state disparity in industrial output. In another study by Rao (1973), the states were grouped into categories on the basis of factor analysis of a number of indicators. He found that broadly the same set of states remained within the different categories over the period thereby negating convergence or divergence. Gupta (1973) found that public investment had a significant contribution in reducing regional income disparity during 1950-66.

In a detail analysis Nair (1983) in which on the basis of compiled SDP data for 1950-51, 1955-56, 1960-61 to 1975-76 from different official and unofficial sources, and showed that inter-state disparities in per capita net state domestic product (NSDP) had declined over the period 1950-51 to 1964-65, but increased between 1964-65 and 1976-77.

Raj (1990) finds that the disparities in the level of income across rural and urban sectors tend to persist because of slow growth of per capita income in the rural sector. The study covered the period between 1950-51 and 1986-87.

In an analysis of 20 Indian states during the period 1960-1990, Dholakia (1994) finds a significant tendency for convergence of the growth rates of State Domestic Products (SDPs). Cashin and Sahay (1996) examines the growth experience of 20 Indian states during 1961-91 using the analytical framework of the Solow-Swan neoclassical model and finds evidence of absolute convergence but increased dispersion of per capita income. However, the validity of the inference in this paper has been contested by Rao et al. (1999) on the grounds of inclusion of special category hill states and Delhi and the absence of statistical significance in the estimated convergence coefficient. Das et. al. (1996) examined some dimensions of economic disparity among 23 states and UT's for the period 1970-92. Using Theil's entropy measure of inequality, they found that inter-state inequality had increased in almost all sectors of the economy. Marjit etal. (1996) and Ghosh et al (1998) and Raoet. al. (1999) were subsequent studies covering roughly the same period which found that, contrary to neo-classical growth theory predictions, inter-state disparity in income levels actually widened over time. The latter study also examined the determinants of divergence in inter-state income growth and analyzed the role of intergovernmental fiscal transfers, both explicit and invisible, in determining this spread. They found that the transfer mechanism was inadequate to address fiscal disabilities of poorer states that ultimately led to the inequitable nature of public expenditure, infrastructure and finally private investments across states. Kurian (2000) adds to the finding of an apparent dichotomy between forward and backward states. The study opined that the enhanced role of the private sector since the early 1980's seemingly increased regional disparity which was largely under control during the period1950-80. Shand et. al. (2000) analyzed the sources of income growth in 15 major states over the period 1970-71 to 1995-96 and suggested that agricultural reform might hold the key to enhanced growth. Nagaraj et al (2000) assessed the degree to which differences in in infrastructure endowments produce differences in steady state levels of output and its long run growth across states.

Ahluwalia's (2000) study was slightly different in terms of the conclusions reached. Analyzing the economic performance of the Indian states during the post-reform period he points out that not all the richest states got richer relative to poorer states. He cites Punjab and Haryana as two key examples. While these were the two richest states in 1990-91, their growth rates of per capita SDP in the 1990s were not only lower than in the 1980s, but also in both cases actually fell below the national average. He also points out that not all the poorer states lagged behind. While suggesting that two poor states, Rajasthan and Madhya Pradesh had performed well, some states with otherwise positive scores on various development indicators lagged behind. However, Alhuwalia does not offer an explanation for their better performance. Sachs et. al. (2002) did a qualitative assessment of the probable determinants of inter-state growth differentials and concluded that geographical differences, migration, national or state policies, urbanization, coastal access, climate and social indicators like literacy and IMR were some of the defining factors. In another study, Bhattacharya et. al. (2004) analyzed growth rates of aggregate and sectoral domestic product of major states in the pre- and post-reform decades. They found that there has been a radical increase in regional disparity of SDP in the post reform period although the growth of SDP has improved only marginally during the same period.

Majumdar (2004) has observed that states like Kerala, Maharashtra and Himachal Pradesh put up consistently good performance regarding social and human development indicators, however, Kerala has not been able to convert its social development into economic progress. On the other hand, Gujarat, in spite of its having low Human Development (HD) ranks, have consistently good ranking in per capita Net State Domestic Product (PCNSDP). Kar et. al (2006) tried to decompose the observed regional economic divergence during the post liberalization decade in terms of sectoral contributions. They find that services and industrial sector were largely responsible for the divergence. Nayyar (2008) did a panel data study for 16 Indian states for the period from 1978-79 to 2002-03, using the literacy rate and public and private investment as control variables. He finds that private investment tended to flow to richer regions as predicted by the theory of cumulative causation. Even public investment, he observes, also tend to favor richer regions because richer states raise more tax revenue.

Joland (2009) measured social and economic development of China, South Korea and India with special reference to India in terms of poverty level, education level, population growth and human development. He made an analysis of the trends in poverty level, education level, health indicators and human development level and found glaring regional disparities. He suggested policies for ensuring better education level for all states, for spreading awareness about family planning, for ensuring good medical facilities and for reducing poverty level. Adabar (2009) made an effort to describe the differences in the steady state and reexamine the hypothesis of convergence and economic growth over the period 1976-77 to 2000-01 among fourteen major Indian states. He considered variables such as per capita investment, population growth rate, human capital, initial level of per capita income as important variables to examine convergence. He found evidence of conditional convergence at the rate of twelve percent per five-year span. Kalra & Sodsriwiboon (2010) find evidence of divergence during the period 1960–2003, but convergence during the sub-periods corresponding to structural breaks in 1980 and 1992.

Kundu (2010) provides an overview of the factors responsible for India's spatial structure of growth and development. He takes up multiple parameters like income, consumption, poverty, employment, urbanization and migration for the past two decades at the state level, and shows that in the post-globalization phase, there has been a rise in economic inequality.
The sample of literature on the subject cited above reveals that the results reported by the researchers are far from uniform, and that consensus is yet to emerge on the issue of convergence of per capita income across Indian states.

4. Conclusion

The studies on magnitude and trends in regional economic disparities in independent India seem to come up with considerable divergence of findings. The results tend to differ according to the period studied, the number of states included, the measure of development used etc. It is quite possible that trends towards convergence/divergence have been strengthened, weakened or even reversed over time and across space as the policy regime in the country have evolved and undergone changes while striving to expedite growth and deepen and broaden the development process. Despite the large number of studies available on the subject, there is scope for revisiting the subject academically for a clearer and comprehensive perspective of the comparative development experience of the different parts of the country.

5. References

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