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STRUCTURAL TRANSFORMATION AND INDIAN ECONOMY

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Abstract

Sustainable growth and development requires a continuous transformation of the economy towards higher value-added sectors and activities that produce income elastic goods, have an advantage in terms of dynamic economies of scale, create inter- and intra-sectoral linkages and provide incentives for innovation and learning. Industries in general and manufacturing in particular are the sectors that historically meet these criteria. More recently, progress in information and computing technology has advanced some services to the status of dynamic sectors. Structural transformation that we are witnessing in the country today has also been witnessed by the developed countries in the world at one or the other point of time. This research paper tries to justify the structural transition of the Indian economy which is in line with the historic experiences of the advanced countries.

Keywords Economic development, structural change, India's economy

Introduction

The structural transformation is the defining characteristic of the development process, both cause and effect of economic growth. One of the processes to define the structural transformation is characterized by a shift of predominant share of agriculture to manufacturing activities and a moderate to high level of increase in the share of services both for the national product and the work force. This pattern has not only been observed historically, but also holds across the countries with different levels of development. In case of India, the major failure of the development process has been its inability to shift a high rate of occupational structure of labour force from agriculture to non-agricultural sector which could not generate a high employment growth in the economy. Although relatively high rate of growth of industrial and services sectors have led to a sharp declines in the share of agriculture in GDP from about 56 per cent in 1951 to around 16 per cent at present (Economic Survey, 2014-15), but it has not been accompanied by a commensurate increase in employment leading to a worsening in the employment situation in the post-reform period. The economy has undergone a significant shift from the dominance of the share of primary sector to that of service sector in the national income which has increased to around 57 per cent in 2011-12 (ibid). This fast growth of service sector that is not preceded by any remarkable growth of manufacturing sector perhaps is one of the peculiar features of the transition in the Indian economy compared to the experience of developed countries. It can be considered as a perverse trend when no notable transformation in the occupational structure of the economy accompanies the relative growth of sub-sectors of the economy. However, in the post-Reform period there is some acceleration in the occupational transformation that is led by service sector, instead of the industrial sector. Also, an overwhelming share of modern sector is an informal economy, whose contribution to quality of work conditions and social security is extremely marginal. The growth trajectory of the economy is at a significant turn. It would be an interesting exercise to understand this transformation of the economy as well as employment trends and the present paper undertakes this task.

Literature Review

Modern analysis of sectoral transformation originated with Fisher (1939) and Clark (1940), who dealt with sectoral shifts in the composition of the labour force. However, they were probably the first to deal with the process of reallocation of the factors of production in the economic growth, and use the form of sectoral division (primary-secondary-tertiary) which, in one way or another, is still with us today.

The first phase of transformation can be understood by the popular theory of unlimited supplies of labour led by Lewis (1954) wherein he gives the example of dualistic economy characterized by modern industrial sector where production involves use of capital and labour, and a large traditional agricultural sector using only labour and simple tools and natural resources. The real wage in the modern sector is substantially higher than the average real earning of workers in the traditional sectors. This is rendered feasible by the fact that output per worker is also substantially higher in the modern sector than in the traditional sector for given wage. In these circumstances, transfer of workers from the traditional to the modern sector not only reduces surplus labour in the economy but also increase the average productivity and income of workers. If such process is allowed to continue till a point is reached where there is no surplus labour left in the traditional sector, a labour surplus economy reaches the turning point where full employment is achieved.

After the first phase of transformation from traditional agricultural sector to modern industrial sector, the next phase of transformation starts by increasing the employment share in services. Different economists have mentioned about such shifts. Kuznets (1966) examined the conceptual framework for the structural transformation, although he used no econometric techniques. The first quantitative analysis of patterns in the transformation process was provided by Chenery and Lance (1968) and Chenery and Syrquin (1975). Historical patterns of economic development of developed countries has, no doubt, followed a common pattern and this is well documented by Kuznets (1966) and others. The share of agriculture has seen a steady decline in total output while the industry sector registered an increase for a considerably long period, and then it has shown a decline. The share of services has steadily increased all through, but the rate of increase seems to have accelerated in the latter half of the twentieth century, the period during which industry has seen a decline in its share and, therefore, is often described as a period of 'deindustrialization' in the developed countries. Victor (1968) in his classical study of the emergence of domination of services sector in the United States finds that income elasticity of demand for services is only slightly higher (1.07) than for goods (0.93) and that for non-food goods are similar to that of services. The persistence in development pattern implies that structural differences remain relevant for understanding the development process.

However, none of the above mentioned papers discussed about structural change or directly examine its empirical link to India's economic growth. Cortuk and Singh (2011), using standard definitions of structural change indices, examine the connection between measures of structural change and growth in India, for the period 1951-2007. They find that there is a structural break in the two time series, and this break occurs in 1988. Furthermore, there is a one-way causal relationship between structural change and growth, but only for the 1988-2007 periods. Hence, this analysis provides more objective empirical support for previous informal assertions in the literature.

Structural Transformation: Indian Experience

The Indian economy has followed the classical patterns of transformation towards secondary and tertiary sectors in terms of contribution to overall output but not so much in terms of employment. Despite impressive expansion in production, job creation in the formal or the organized sector has been less than extraordinary for the last two decades. India's workforce remains employed in relatively low-productivity, low-pay jobs even if organized activities output has expanded annually at an average rate of more than six percent. Labour productivity in the organized sector grew only slightly slower, leaving little need for additional employment. By 2005, more than 90 per cent of India's labour force was in the unorganized sector. The movement of labour from low to high productivity sectors generally aids growth through several channels. First, it acts through the demand channel—higher wages not only imply higher aggregate demand but also shift in demand patterns towards goods with higher technological content, thus stimulating structural change and creating economy-wide benefits as discussed above. Second, it acts through a rise in overall productivity growth. Third, it provides the means for human capital accumulation at the microeconomic level. Finally, through income and demand channels combined it reduces the degree to which non-industrialized economies are dependent on the goods and financial markets of the North.

The implications of these patterns of development are many. , a widening gap between India's skilled and well-paid on the one hand and those unskilled and mostly poor on the other hand has been on the rise. It can have dire implications for the social milieu but also for the sustainability of growth (Breman (2010) and Chandrasekhar & Gosh (2007), Ranis et.al. (2000)). Without a more uniform increase in labour productivity and therefore incomes, economic expansion is eventually brought to a halt by either a lack of growth in demand or by skilled labour supply constraints; or, by a combination of the two. While overall inequality has been well documented, Deaton & Dreze (2002) find that regional and state inequality is increasingly apparent and is driven by changes in the sectoral configuration of local economies. Southern and Western states tend to be more successful in reducing poverty—which is not surprising, since many high–productivity jobs in the IT and business services are concentrated in these states. It remains to be seen if these hubs of fast growth remain enclaves or if stronger linkages can be built with the rest of the economy such that growth accelerations become more uniform. As of now however, the impact of trade in services on the Indian economy, with respect to output *growth* and more importantly, employment, remains relatively weak. Mitra (2011) in fact points out that because of its negligible effect on job creation the export-oriented service sector is far from being inclusive. Second, there are significant gaps between labor productivity in the organized versus unorganized sectors. A formal sector worker produces on an average *eight* times the output of an informal worker (Rada (2010)). The gap is even more astonishing if we compare labour productivity in the organized with unorganized manufacturing.

We can dissect the macro economy further to capture the effects of a lagging agricultural productivity on industrial growth potential. This aspect has long been at the heart of development debate which points out that the price of food in terms of the industrial wage acts as a crucial constraint to industrial expansion (Kalecki (1976)). Consequently, there is the possibility that food price inflation disrupts a virtuous cycle of formal/organized sector output and employment growth. Hence, appropriate policies should be designed to aid agriculture in supporting formal and industrial growth in general.

Economic growth in post-Independence India has certainly seen several turns and twists. Accordingly, several phases with distinctive features in terms of rates of growth and structural changes can be identified. It is, however, not very meaningful to highlight short-term fluctuations in an analysis of the growth and structural changes of an economy over a long period of about six decades. At the same time, it is also of neither factually realistic nor analytically meaningful to divide the entire period just in two parts, pre and post-reforms, as is often done in most of the recent studies and analysis of India's economic growth. The year 1991, when economic reforms were introduced, is seen as the sole turnings point, providing a break from the low growth to high growth patterns and dividing the post-Independence economic history into two clear phases: the pre-reform 'dark' phase and the post reform 'bright' phase. Such a simplistic description of India's economic experience can easily be questioned on the basis of historical facts. A major break in history of economic growth in India occurred soon after Independence. An economy which had virtually stagnated over the past half century, growing at about 0.5 per cent per annum, started growing at over three per cent from early 1950s. State directed economic planning, and not just the departure of the Britishers was the reason for this turning point. Growth rate averaged to 3.5 per cent euphemistically called the Hindu rate of growth, over the next three decades though it saw a deceleration in the later part of the period, 1965-1981. The next break in terms of growth occurred in early 1980's, when growth rate of GDP accelerated from around 3 to 3.5 per cent in previous decades to between 5 and 6 per cent. In this respect, introduction of economic reform in early 1990's was not a 'break' as the growth rate in the post–reforms 1990's was not significantly higher than during 1980's. Growth rate, in fact, slowed down in the early years of 21st century, but significantly picked up after 2004. The period since 2004, even after accounting for slow down during financial crisis in 2008-09 represents a distinctive phase of high growth in the post-reforms period. Structural changes as reflected in the changes in the shares of agriculture, industry and services have broadly followed the same time pattern as the changes in growth rate but the contents of change have varied from period to period. No doubt, the share of agriculture has continued to consistently decline over the past six decades: from 57 per cent in 1950-51 to 40 per cent in 1980-81 to 24 per cent in 1995-96, to about 16 per cent in 2010-11. Industry and services have both increased their share, but at different pace and in different periods. Accordingly, their relative contribution to the growth of and importance in aggregate GDP has varied over different periods.

Percentage Share of Different Sectors in Gross Value Added at Factor Cost (at constant 2004-05 prices)

Sector	**1950-51**	**2011-12**
1.Agriculture and Allied Activities	56.1	16.5
2.Industry	14.4	26.1
3.Services	29.5	57.4
Total	100.0	100.0

Source: Economic Survey, 2014-15, A-5

On the basis of the observed patterns of growth and structural changes, economic growth in post-independence India can be divided into the following four phases, each with its distinguishing features.

Phase 1. Independence to Mid-1960s: This period saw a significant acceleration in the growth rate over the past decades marked by a high growth of industry, and a significant structural change with a large increase in the share of non-agricultural sector, especially of the industry in the national output.

Phase 2. Mid-1960's to 1980: This period was marked by a slower growth of GDP, accompanied by a deceleration in the growth of industry, a slower pace of structural shift from agriculture to non-agriculture and a very small increase in the share of industry.

Phase 3. 1980 to early 1990s: This period saw a sharp acceleration in growth rate, mainly contributed by services. Structural changes were also swift, with a large decline in the share of agriculture, but very little increase in the share of industry-services picking up the major share of the shift.

Phase 4. Easy 1990's Onwards: Growth continued at similar rate as 1980's, but declined during 2000-2004. Structural changes continued at an accelerated pace with share of agriculture sharply declining and services emerging as the major sector and with very small increase in the share of industry. Within this phase, period 2005-10 has seen a sharp acceleration in growth rate, despite a slowdown in 2008-09. Share of agriculture has declined from around 20 to 16 per cent, that of services has increased from 54 to 57 per cent and that of industry has stagnated. Thus, in the first three decades, rate of economic growth followed that of the industrial sector. Since 1980's it has been primarily services led. The questions that are often asked in this respect are, one, whether this represents a different growth path than historically observed and if so, what has led to this "deviation"; and two, whether such services-led growth is sustainable. In this context, it is useful to look at the composition of the services sector to see which services have contributed to the growth and dominance of the sector. It appears that four services, namely, Trade, Hotels, Transport and Communication have contributed more or less entire GDP growth in services sector during the period 1950-51 to 2007-08. Their share in GDP was 11 percent in 1950-51 and 26.7 percent in 2011-12. Financing, insurance and real estate contributed 8.3 percent in 1950-51 and 18 percent in 2011-12. In community, social and personal services, public administration and defence increased marginally from 10.2 percent to 12.7 percent in 2011-12. Overall, transport and communication has seen a large jump in their share, trade and financial services some increase and community, social and personal services a slight increase in their shares during 1950-51 to 2014-15. It may be noted that these changes coincided with the increasing importance of the organised private sector and declining importance of the public sector which had contributed to the faster growth of services in 1980's.

Conclusion

To summarize, we observe that structural occupational transformation process in India seemed to have begun since post-Reforms period. The transformation is led by a growth of service-sector employment, not industry-led. It has begun since 1983, much prior to 1991 reforms, but slightly slowed down during 1993-04, but has picked again at much faster pace. If the present trends continue, the agricultural dependent workers might decline substantially in the coming two decades. Quite disturbing aspect is that we foresee a growth of a mammoth unorganized employment for the future located in more in services and less in industry, with a substantial self-employed people. Structural transformation of employment is not just about a change from agriculture to non-agricultural sector works, but is about shifting from low productive-low wage to high productivity-high wage work (with reasonable social security). If some farmers move out from his work and become a rickshaw pullers or street vendors in urban areas, it is hardly a structural transformation.

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