EMERGING STRUCTURE OF INDIAN ECONOMY

Implications of Growing Inter-sectoral Imbalances

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It is indeed a great honour for me to address this august gathering of economists from all over the country assembled here for the 88th Conference of the Indian Economic Association, the oldest, largest and most representative body in the profession of Economics in India. I am grateful to the members of the Association for giving me this rare opportunity by electing me as its President for this year. I am aware of the fact that my predecessors in this position have been scholars with extraordinarily high intellectual and academic credentials. I have, therefore, to accept this honour with sincere humility. I have no pretensions nor the capability, to equal them in respect of the academic significance, erudition and quality of their Presidential addresses.

In my address, I have chosen to dwell upon the familiar subject of Structural Changes in the Indian Economy, a subject on which I have been pondering over and had discussions with colleagues in the profession and also written and presented some preliminary ideas on some occasions over the past year[1]. The reason I decided to speak on this subject is that over the past decades, particularly since the beginning of economic reforms and acceleration in the rate of growth since 1990, the Indian economy has followed a growth pattern, which, on the face of it, appears to be different from the one observed in the historical development of today's developed countries and also from that being experienced by similarly placed developing countries today. I felt that this uniqueness of the growth pattern of India needs to be recognised, understood and analysed and its implications for longer term development strategy and policy brought out.

In the first part of my address I shall briefly touch upon the relationship between growth and structural changes and list the major theoretical explanations that have been advanced for 'agriculture-industry-services' sequence of structural changes to accompany economic development. In the second part, I will give a brief account of the historical pattern of development followed by today's developed countries. Then I will highlight the main features of the structural changes in the Indian economy over the past half a century, with particular focus on the last two decades. A comparison with some of the similarly placed economies of Asia follows to examine if the pattern followed by India is the one also followed by other developing countries in the new global economic environment. In the next part, several explanations offered to explain the rather ahistorical path of India's development, characterised by a presumably pre-mature emergence of services as the major sector, are described and briefly examined. I end by raising some questions on the sustainability of the on-going pattern of growth from the viewpoint of macroeconomic balance and stability, balance of trade, employment and income distribution.

I Theoretical Perspectives on Structural Changes

Economic development has historically been associated with structural changes in the national economies. It has, in fact, most often, been defined as a process combining economic growth with changing share of different sectors in the national product and labour force. The most common structural changes that have been observed historically have followed a sequence of shift from agriculture to industry and then to services. Thus, an underdeveloped economy is characterised by a predominant share of agriculture; with development the share of industry increases and that of agriculture declines, and subsequently after reaching a reasonably high level of development, the services sector increases in importance, becoming a major component of the economy. This pattern has not only been observed historically, but also holds across the countries with different levels of development. Structural shifts and changing sectoral shares are found to hold both for the national product and the work-force.

Structural changes do not only characterise economic development, they are also necessary for sustaining economic growth. The neoclassical view that sectoral composition is a relatively unimportant by-product of growth has been convincingly questioned by structural economists like Kuznets, who have empirically demonstrated that growth is brought about by changes in sectoral composition. This is so both for the reasons of demand and supply. Though the emphasis laid on different factors by different economists has varied, the broad line of reasoning advanced by pioneers like Fisher and Clark and followed with some elaborations and modifications by later analysts has been as follows: Income elasticity of demand for agricultural products is low; that for industrial, particularly manufacturing goods, is high; and, for services, it is still higher. As a result, with rising levels of income, the demand for agricultural products relatively declines and that for industrial goods increases and, after reaching a reasonably high level of income, demand for services increases sharply. Accordingly the shares of different sectors in the national product get determined by the changes in the pattern of demand. On the supply side, agriculture being mainly dependent on a fixed factor of production, namely land, faces a limit on its growth and is subject to early operation of the law of diminishing returns. Industry, specially manufacturing, on the other hand, offers large scope for use of capital and technology, which could be augumented almost without limit with human effort. Labour supply could constrain expansion of industry, but it is possible to overcome it by introducing labour-saving technological changes. The same applies to services, where application of technologies seems to offer much larger scope, as shown by the experience over the past few decades.

In the case of services, there are also additional reasons why their share in national product increases with industrial development. These arise both out of the technological developments and economic and institutional arrangements compelled by them (Kuznets, 1966). Technological developments facilitate and economically necessitate geographical concentration and large scale based production, leading to larger requirements of transport, storage and communication. In a predominantly rural economy, most of the food is produced close to the consumers; but with increasingly larger population getting located in urban areas, requirements of transport and trade increase even for reaching food to the consumers. Increasing demand for housing in urban areas leads not only to the expansion of construction activity (which is accounted for under 'Industry'), but also leads to demand for housing related services, which are generally not common in villages. Further, higher income levels not only give rise to higher demand for personal services such as education, health and recreation, but new, technology based modes of meeting them lead to demand for other services. For example, when the conventional means of recreation such as folk songs and dances or fairs and festivals, give way to radio and television, a whole host of new services, not only of repair and maintenance, but production and broadcast and telecast of and distributive arrangements for programmes, develop. And larger scale and increasing complexity of economic organisations in different sectors of activity give rise to the need of regulation, requiring expansion in government machinery.

There is, however, a disagreement among economists regarding the primary force behind structural changes that accompany economic development. Classicals like Fisher and Clark, basing their arguments on Engel's Law, thought that shift from agriculture to industry takes place as a result of low income elasticity of demand for agricultural products and high income elasticity of demand for manufactured goods. They, however, seem to lay different emphasis on the demand and supply side factors in respect of shift from manufacturing to services. Fisher (1939, 1946) emphasised saturation of demand for manufactured goods and high income elasticity of demand for services. Basing his argument on the so-called "hierarchy of needs", Clark agreed that final demand will increasingly shift to services, but shift of labour force takes place, according to him, due to high productivity of manufactured goods and low productivity of services. Kuznets (1971) saw income elasticity of demand as the primary reason for changes in economic structure, but recognised that other factors, technological and institutional, also play an important role in accelerating these changes. Emphasising primarily the supply side, Kaldor (1966, 1967) considered manufacturing as the engine of growth: agriculture being subject to diminishing returns, is not able to sustain an increasing level of production and income, and, therefore, manufacturing, without such limitations on expansion of production, is the key to sustained economic growth. The key role of manufacturing in growth is explained by Kaldor through his three famous laws, emphasising strong causal relation between growth of manufacturing and growth of GDP, between growth of manufacturing output and growth of productivity in manufacturing and between rate of growth of manufacturing and growth of productivity in other sectors. Growth of services, according to him, was induced both by requirements of expanding industrial sector and rising levels of income.

The 'demand side' explanation based on differences in income elasticity of demand is questioned by economists like Bamoul (1967, 2001) particularly in regard with the shift of labour force to services. According to this line of argument, employment shift does not result from changing final demand, but from differential productivity growth. Since service sector productivity rises slower than manufacturing activity, employment share of the services sector tends to grow faster and becomes high in the developed countries. Victor Fuchs (1968) in his classical study of the emergence of domination of services sector in the United States corroborates the view propounded by Bamoul and concludes that shift to services is largely a result of productivity differentials; demand shifts play only a minor role in this process. He 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 is similar to that of services.

Differences in emphasis placed on the 'demand side' and 'supply side' explanations of structural shifts, by different economists notwithstanding, the truth may lie somewhere in between. This view is best presented by Kuznets

(1971), who sees the driving force for changes in sectoral composition of output in differences in income elasticity of demand for products of different sectors, but caused by differential growth of productivity in different sectors. Changing structure of demand with increasing per capita income levels induces changes in production structure, but at the same time, changes in technological conditions of production, increasing scale and concentration of production and institutional arrangements necessitated by changes in location of production and population, also have significant influence on the pattern of these changes. Further, the response of changing consumption demand pattern on production structure in the national economies, will vary depending on the close or open character and trading possibilities of a country. While in a close economy, the domestic production structure will need to respond to the changing demand pattern as much as its production capacity permits, in an open economy, demand for certain commodities can be met by imports while the national production structure will primarily be determined by comparative advantage.

In any case, structural changes in the national output inevitably accompany, and bring about, economic growth, irrespective of the primary and secondary factors causing them. And structural changes in output are also expected to be accompanied by similar changes in employment. Thus, in line with the decline in the share of agriculture in national product, a decline in the share of agriculture in employment can be expected, in the first instance, involving a transfer of labour from agriculture to industry. In fact, such a transfer is seen by economists like Arthur Lewis (Lewis, 1955) as a source of capital accumulation and a relatively costless process of economic growth. Agriculture carried out mainly as a subsistence activity in an under-developed economy, has a large surplus of labour, with insignificant contribution to production, yet claiming its full share in consumption. Use of this labour in growing industrial sector leads to net addition to the national output without significantly increasing the cost of labour, consisting of subsistence wage, to the economy. Several assumptions involved in this approach have doubtful validity, a subject, which has been widely debated in development literature and need not be repeated here. But, it emphatically makes the point that economic development of an underdeveloped country not only involves but requires shift of labour from agriculture to industry. Magnitude of such shift will, of course, depend on the rate at which industrial development takes place and the technology and, therefore, the labour absorbing capacity, of the developing industry.

There is a general agreement among economists that the employment share of services will rise in the next phase, after the first phase of shift to industry. It is, however, not clear as to when and at what level of economic development and per capita income it will take place. The reasons why this shift will take place are also seen differently by different economists. Earlier economists like Fisher and Clark seem to take it for granted that it happens due to changing demand pattern. Fisher argued that services are "luxuries" with an income elasticity of demand greater than unity and, therefore, at higher income levels an increasing share of expenditure is absorbed by them, which leads to high share of services in output and labour force. Clarke argued that demand for manufactured goods saturates, settling at around 20 to 25 per cent, and with continuing decline in the demand for agricultural products, the demand that for services rises. While Fisher assumed that increase in the share of services in final demand directly and proportionately translates into its share in employment, Clark, attributes the increase in the share of services in employment also to low productivity in services than in manufacturing. Later economists like Bamoul and Fuchs see a rise in the share of services in employment primarily in productivity differentials between industry and services sectors, demand shifts playing a minor role. Bamoul, assuming that share of goods and services in real output is constant over time and across countries and basing his conclusion on a study of six developed countries (Canada, Germany, France, Japan, UK and US), over the period 1948-1995, finds that a higher and rising share of service sector in employment in high income countries is explained by low productivity of this sector. Victor Fuchs in his study of 48 US States over the period (1929-1965) also sees the lagging productivity growth of the services sector, as the reason for its rising employment share.

Increase in the share of services in employment, (and also to some extent in the national product) is also explained in what is seen as change in the "inter-industry division of labour". Industry has increased the use of services as intermediate inputs and many of the processes and activities of a 'service' nature, which were carried out by manufacturing firms as part of their activity and, therefore, accounted for as part of manufacturing and industry, are increasingly outsourced to enterprises included in the 'service' category. Using input-output analysis, it is possible to identify as to which part of the service sector output makes an intermediate input to commodity producing sectors, namely agriculture and industry and which part goes to meet the final demand. Employment in services in seeds and fertiliser distribution could be distinguished from that in trade of foodgrains; and employment in trading of steel and cement for construction activity from employment in retail sale of stainless steel utensils. Using the concept of Final Product Employment, which includes all employments – direct and indirect – some economists (e.g. Russo and Schetkatt, 2001), have tried to measure the part of the employment in services that could, in fact, be attributed to manufacturing, as it is generated in the services making intermediate inputs for that sector. It is found that in recent decades, particularly since 1980's, growing demand for services as intermediate products has contributed to increasing share of service sector employment and outsourcing from manufacturing to services has also increased. These phenomena, however, explain only a small part of the growth in employment in services. For example, according to the study cited above, services as intermediate product in output of manufacturing increased in Germany, France and UK and to a lesser extent in USA but still constituted only between 13 to 17 per cent of the manufacturing output in 1990.

Thus, the differences in income elasticity of demand still appear to be the driving force behind changes in product structure of an economy in an 'agriculture-industry-services' sequence. The supply side factors such as technology, scale and territorial concentration of production and changes in inter-industry division of labour leading to relocation of activities from one sector to another, however, now provide increasingly significant explanation of structural shifts in output in recent years. Increasing share of labour force in services has, however, been attributed by most economists to the low productivity in services as compared to manufacturing.

II Historical Patterns

After this rather capsule account of theoretical underpinning of structural changes accompanying development, let me briefly dwell upon the historical pattern of such changes in today's developed countries. These patterns are very well documented by Kuznets and others and are very well known to economists. Updating the past documentation, I will only attempt to highlight some of the interesting features of changes in economic structure, more particularly in recent periods.

Historical pattern of economic development of today's developed countries has, no doubt, followed a common pattern. Share of agriculture has seen a steady decline in total output, that of industry registered an increase for a considerably long period, and then has shown a decline. And 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' (Rowthorn and Wells, 1987) in the developed countries. This period, characterised by the emerging dominance of services in the economies of developed countries, is also seen as signalling the dawn of a 'post-industrial society' (Clark, 1984).

The timing of the different phases of structural changes and speed of such changes have, of course, been different among different countries. In the 'pre-modern' era, which according to Kuznet's assessment ended at different points of time during the nineteenth century in different countries (e.g. before 1800 in Great Britain, 1835 in France, 1861 in Italy, 1870 in USA, 1878 in Japan, etc.), agriculture accounted for a half to two-thirds of the total output. It seems to have taken about 75 to 100 years for this share to decline to about one-fourth in the case of most European countries, though similar shift was achieved more swiftly in North America and Japan, the relative latecomers in modern economic development. In spite of differences in time of entering the era of modern development and in the speed of transformation, the share of agriculture had declined to less than 15 per cent in most of these countries by middle of the twentieth century and has seen a further continuous decline since then, reducing it to less than 5 per cent in all of them, by the end of the twentieth century.

Industry held a share of around 25 per cent at the beginning of the 'modern' development in most of the developed countries of today. It grew steadily and reached the peak of about one-half by 1950's in all these countries irrespective of the period when they entered the industrialisation phase. And all the developed countries have seen a decline in the share of industry in their output since the 1950's. By and large, the changes in the share of industry have been observed to be hump-shaped (Kuznets, 1966, World Bank, 1988 and Echevarria, 1997). It is interesting to note that in most of the countries, industry has the same share in output in the beginning of the twenty-first century as it had in the beginning of their journey to 'modern' economic growth. Thus in 2002, the share of industry in national output in the United Kingdom was 26 per cent, comparable to 23 per cent in 1801; in France, 25 per cent, the same as in 1841; in Germany, 23 per cent compared to 24 per cent in 1841; in Italy, 29 per cent comparable to 22 per cent in 1901; and in USA, 23 per cent comparable to 20 per cent in 1841 (Kuznets, 1966 and World Bank, 1983 and 2004; data on output and employment shares referred to in the following paragraphs in this section are also from these sources).

The services sector has experienced a secular increase in its share right through the period of modern economic growth in all countries, except for an initial decline in a few countries, namely Great Britain, France and Germany, the early industrialisers. The share crossed the 50 per cent mark by 1901 in Great Britain, saw a decline till about mid-1950's and crossed 50 per cent again by 1960, by when most other countries, France, Germany, Italy and Japan had crossed this mark for the first time. The United States had hit a 50 per cent mark for services in its GDP earlier. There has been a continuous, and a relatively fast increase in the share of services since the 1960's, and by now, it stands at 68 to 75 per cent in all the countries; the highest being 75 per cent in the case of the United States, followed by the United Kingdom at 73 per cent, France at 72 per cent in 2002. It is somewhat lower at 68 per cent in Japan.

The above description of changes in sectoral shares during the period of modern economic growth in today's developed countries tends to suggest a common or a 'normal' pattern of development. This has, however, been seriously questioned by a group of economists led by Chenery (Chenery and Syrquin, 1975), who have argued that for any meaningful discussion on the subject, countries need to be divided into different groups by size–large, small with primary exports and small with industrial exports. Empirical work using categories of very large, large and small categories, however, shows no differences in average performance among the nations in the three groups, except that the share of industry begins to rise at a lower per capita income levels in the large than in the small countries (Perkins and Syrquin, 1989). Irrespective of the period when different phases of structural changes occurred, what is interesting to observe is that by the end of the twentieth century most developed countries showed a remarkably similar structure of their economies. Thus agriculture contributes less than 5 per cent in GDP, industry, 25 to 30 per cent, and services, around 70 per cent, in all of them.

What is also equally interesting is that, in general, the structure of employment is found to be remarkably similar as that of the national product.

Figures of shares of different sectors in GDP and employment in 2002, as given in Table 1 reveal a striking symmetry between the two variables. In all the seven developed countries selected here, agriculture contributes less than 5 per cent of GDP as well as of employment; industry share in GDP is in the range of 22 and 30 per cent, and its share in employment varying between 21 and 33 per cent, follows similar pattern as of GDP among the countries. And services account between 68 and 75 per cent of GDP and 63 and 74 per cent in employment in all the countries. What is equally, if not more striking is that structural shifts in output have generally been faithfully accompanied by similar shifts in employment. So that when output share of agriculture in the United Kingdom declined from 32 per cent 1801 to 22 per cent in 1841 and further to 6 per cent in 1901, its employment share also declined correspondingly to 35, 23 and 9 per cent. And when output share of industry rose from 23 per cent in 1801 to 40 per cent in 1901, and 56 per cent in 1955 and declined to 42 per cent by 1980, the corresponding change in its employment share were from 29 per cent to 54 per cent, 57 per cent, and 38 per cent. Product and employment shares of different sectors in other countries have not behaved as 'perfectly' as their counterparts in the United Kingdom, but their long-term movements have also not shown a degree of asymmetry that could result in significant widening of inter-sectoral productivity and income differentials.

Table 1
Output and Employment Shares in Selected Developed Countries (2002)

Country	**Shares in Output (%)**			**Shares in Employment (%)**		
	Agriculture	Industry	Service	Agriculture	Industry	Service
United Kingdom	1	26	73	1	25	74
United States	2	23	75	2	24	74
France	2	22	76	3	25	72
Japan	1	31	68	5	31	64
Germany	1	30	69	3	33	64
Italy	3	29	69	5	32	63
Australia	4	26	69	5	21	74

Let me now summarise the main interesting features of the historical pattern of changes in the economic structure that accompanied economic development of today's developed countries, over the past two centuries. First, all countries, irrespective of the time they embarked upon the 'modern' economic growth, had a similar sequence of changes in their economic structure starting with a predominance of agriculture, first a shift took place in favour of industry and subsequently in favour of services. Second, while a decline in the share of agriculture and increase in the share of services took place continuously over a period of about two centuries, the share of industry changed in a hump-based fashion, initially increasing continuously for a period of about one and half or one century, then, experiencing a decline over the last fifty years. Irrespective of the time when industrialisation started, 'deindustrialisation' in terms of a decline in the share of industry is observed to have started around the same period, that is, the middle of the twentieth century, in all countries. Third, the structure of the economies of most developed countries looks like a replica of each other, each of them having a miniscule share of agriculture, industry claiming about one-fourth and services around seventy per cent of the national product. Fourth, changes in the structure of labour force generally accompanied those in product structure, thus the share of each sector in employment moving in line with the output share of that sector. What is most interesting to note is the fact that today the employment structure of most developed countries is strikingly similar to their product structure, thus reflecting a high degree of inter-sectoral equality in productivity and income levels.

III The Indian Case: Structural Changes in Last Half Century

Let me now turn to the development experience in India to see how similar or different it has been from the model thrown up by the historical experience of the developed countries. Here I will confine to the development over the last half a century only. For, it is only during the last about half a century that 'modern' development accompanying significant structural changes has taken place in India. Indian economy revealed similar structural characteristics in 1950, as most developed countries of today showed at the time they embarked upon the road to industrialisation. With about 60 per cent of GDP accounted for by agriculture, industry contributing about 13 and services about 27 per cent, the Indian economy in 1950 was structurally comparable to the economy of the Great Britain in late eighteenth century, and of Germany at the beginning of the nineteenth century, of the United States and Italy of mid-nineteenth century and of Japan in 1900. Similar comparisons hold in respect of the share of labour force in different sectors: agriculture accounted for about three-fourths, industry for about 11 and services 16 per cent of total employment in 1950, in India. This is comparable with the United States of 1841, with 72 per cent workers in agriculture, 12 per cent in industry and 16 per cent in services, or Japan of 1880 with the respective shares of employment in the three sectors being 65, 15 and 20 per cent.

Economic development in India over a period of half a century seems to have followed the same pattern of structural changes that the developed economies of today underwent over a period ranging between 150 to 100 years. The share of agriculture in GDP declined from around 60 per cent in 1950-51 to 24 per cent in 2003-04. That of industry increased from 13 to 25 per cent and of services from 28 to 51 per cent. This pattern of shifts has been continuous throughout the period of over half a century, but the speed of the shift has been faster since 1990-91. The first forty years saw a decline in the share of agriculture from 59 per cent to 35 per cent, the next 13 years from 35 to 24 per cent. Share of services increased from 28 to 40 per cent in the first 40 years and from 40 to 51 per cent in the next 13 years. Share of industry has grown slowly but has stagnated since 1990-91.

The most striking feature of the structural change in the Indian economy in recent decades has been the pre-eminence of services sector as the major contributor to growth, raising its share rather sharply in the national output. Industry, particularly manufacturing, which has been observed historically to be the main contributor of growth, at least in the initial period of economic development, has played only a minor role in India's economic growth in recent years. While this has been the pattern of growth in most of the developed countries since the middle of the twentieth century, questions have been raised whether India is already at a level of development to sustain such a change in the sources and pattern of economic growth. In other words, while developed countries entered the phase of predominance of services in their economies, after going through a phase of industrialisation, and industry having attained a share of 50 per cent in the economy, is India on the way to becoming a post-industrial 'service economy', without industrialising?

Two propositions have been generally advanced to explain such a swift and ahistorical transition of an economy directly from an agricultural to a service economy, bypassing industrial development. One, it is argued that technological advancements over the past few decades have led to increasing demand for services even at a relatively low level of per capita income and also the distinction between products and services has become rather blurred. Development of communication technologies and movements of people across countries have produced demonstration effect creating similar pattern of demand in developing countries as in the developed countries leading to larger demand for and, consequently, production of services (Panchamukhi, Nambiar and Mehta, 1986). As a result, elasticity of demand for services has become greater than unity even in countries with relatively low per capita income levels (Sabolo, 1975), thus leading to a rise in the contribution of services in national product. Second, the classical model of structural changes with economic development was based on the experience of nations with more or less autarkic regimes with little international trade, a situation in which domestic product structure of each country has to reflect its demand pattern. With increasing openness of economies and trade playing significant role in them, changes in demand pattern can be met through trade and countries can have a product pattern, very different from the pattern of consumption demand, largely based on comparative advantage.

IV Comparison with Other Developing Asian Countries

These propositions imply a new path of development, different from the one observed to have operated in the countries, which went through development process earlier, and if true, should hold not only in India, but also in other countries with similar levels and structures of economic development. A comparison with economies of developing countries, particularly in South , South East and East Asia will be in order in this regard. Countries that we have chosen for this comparison here are China, Indonesia, Malaysia, Pakistan, The Philippines, Thailand and Republic of Korea (Table 2). Share of the services sector has increased in all these countries since 1960. In Indonesia, it increased from 25 per cent in 1960 to 38 per cent in 2002; in Malaysia it declined during 1960 to 1980, but rose from 36 per cent in 1980 to 44 per cent in 2002. Pakistan saw an increase from 38 to 54 per cent and the Philippines from 46 to 53 per cent between 1960 and 2002. And, in Thailand, it increased from 41 per cent in 1960 to 48 per cent in 2002. For China, estimates are available since 1980 when the share of services sector in GDP stood at 21 per cent and rose to 34 per cent in 2002. In Republic of Korea, which has a much higher level of per capita income, services expanded from 43 per cent of GDP in 1960 to 55 per cent of GDP in 2002. India registered by far the fastest increase in the share of services from 30 per cent in 1960 to 51 per cent in 2002.

Table 2
Changes in Sectoral Shares (%) in GDP in Some Asian Countries (1960-2002)

	Agriculture		**Industry**		**Services**	
Country	1960	2002	1960	2002	1960	2002
China	30 (1980)	15	49	51	21	34
Indonesia	50	18	25	45	25	38
Thailand	40	9	19	43	41	48
Philippines	26	14	28	33	46	53
Malaysia	36	9	18	47	46	44
Republic of Korea	37	4	20	41	43	55
Pakistan	46	23	16	23	38	54
India	55	24	16	25	29	51

Agriculture, expectedly, registered a decline in its share in GDP in all these countries during 1960-2002, the largest decline being in the case of Thailand (from 40 to 9 per cent) and, of course, Korea (from 37 per cent to 4 per cent). But the share of industry experienced significant and continuous increase in most of these countries. Thus in Indonesia it increased from 25 per cent in 1960 to 42 per cent in 1980 and 45 per cent in 2002. Corresponding figures for Thailand are 19, 29 and 43 and for Malaysia 18, 41 and 47 per cent. In India, the increase in the share of industry was much smaller. In 2002, share of industry in GDP in India was 25 per cent, while it was much higher at 51 per cent in China, 45 per cent in Indonesia, 43 per cent in Thailand and 47 per cent in Malaysia. Pakistan is the only country in the group with a lower share of industry than India, and the only one along with the Philippines, to have experienced a decline in it during 1980-2002.

Thus, the proposition that the growth in the technologically advanced and globalised world of late twentieth century had to be primarily service-led in which industry plays a second fiddle does not seem to hold universally. In most developing countries similarly placed with India and growing at a reasonably high rate, industry has played as important a role as services in their growth. Even with a significant rise in the share of services, China, Indonesia and Malaysia have a higher share of industry than of services and all of them along with Thailand and Korea have over 40 per cent share of industry in their GDP, as compared to about 25 per cent in India.

Another significant difference between the growth pattern of these countries and India is seen in the shift of labour force with changing sectoral structure of the economy, particularly in the employment share of services. What is common in most of these countries and India is a relatively slower shift of labour force from agriculture to non-agricultural sectors. Thus while the GDP share of agriculture in China declined from 30 per cent in 1980 to 15 per cent in 2002, its employment share declined from 69 to 47. Corresponding shifts between 1960 and 2002 were: from 50 to 18 per cent in GDP and from 75 to 44 per cent in employment in Indonesia; and from 40 to 9 per cent in GDP and 84 to 46 per cent in employment in Thailand. Only in Malaysia the decline in labour force in agriculture has been commensurate with that in GDP: from 63 to 18 per cent in the labour force compared to 36 to 9 per cent in GDP. In India, shifts during 1960-2002 have been from 55 per cent 24 per cent in GDP and from 74 to 60 per cent in labour force. The shift in labour force in relation to decline in GDP share has been much slower in India than in other countries.

Industry always had a much lower share in labour force than in GDP in all the countries. And the two shares have moved similarly over the period. Thus in Indonesia, when GDP share of industry increased from 25 per cent in 1960 to 45 per cent in 2002, its employment share also increased from 8 to 17; in Thailand corresponding movements were from 19 to 43 and 4 to 21 per cent; and, in Malaysia, from 18 to 47 and 12 to 32 per cent. In China, while GDP share of industry increased from 49 in 1980 to 51 per cent in 2002, that of employment increased from 18 to 21 per cent. In India, industry share in GDP increased from 16 to 25 per cent and employment share from 11 to 18 per cent during 1960-2002. Thus the share of labour force in industry has moved similar to that of GDP, in all countries including India, but a similar proportion of labour force produces much larger share of output in other countries than in India.

What distinguishes the Indian case from others in this group most is the difference in the growth of employment *vis a vis* of GDP in services. In all other countries the share of services has increased more or less in line with that of GDP, in India, employment share has shown much smaller increase than the GDP share. For example, in China the share of services in GDP grew from 21 in 1980 to 34 per cent in 2002, their share in employment also increased from 13 to 31 per cent. In Thailand, Indonesia, Malaysia, the Philippines and Korea, employment share increased much faster than the GDP share. In India, while the share of services in GDP increased from 29 per cent in 1960 to 51 per cent in 2002, their share in employment increased from 15 per cent to 22 per cent only. In other words, growth of services in India has been much less employment-intensive than in other countries. As a result, while in most other countries the share of services in 2002 is similar both in GDP and employment (China: 34 and 31, Indonesia: 38 and 39, Malaysia: 44 and 50, and Korea: 55 and 62, per cent), in India the two percentages are as apart from each other as 51 and 22 (Table 3).

Table 3
GDP and Employment Shares in Services (2002)

	Share (%)	
Country	**In GDP**	**In Employment**
China	34	31
Indonesia	38	39
Thailand	48	33
Philippines	53	47
Malaysia	44	50
Republic of Korea	55	62
Pakistan	54	34
India	51	22

Let me summarise the conclusions and inferences drawn from these comparisons between India and other developing Asian countries, First, GDP share in agriculture has declined sharply in all countries including India. Second, share of industry has increased significantly in most other countries, much faster than in India. Third, share of services has increased in all countries, but increase has been much larger in the case of India than most others. Fourth, industry remains the most important sector in China, Indonesia, and Malaysia with over 40 per cent share in GDP; Thailand and Korea also have similar share of industry, though services sector has become the most important sector in their economies. In India, services have emerged as the dominant sector, industry being a poor second contributing only about one-fourth of GDP. Fifth, shift of labour force from agriculture has been slower than that in GDP share in all countries, but the lag has been much larger in the case of India, which now is the only country in this group of countries that has more than half of its labour force in agriculture. Sixth, share of industry in labour force has shown similar change and level (in 2002) in India as in other countries, in spite of the fact that most other countries have much larger share of industry in their GDP, implying low productivity by international comparisons and high employment potential by domestic inter-sectoral comparison. Seventh, increase in the GDP share of services has been accompanied by similar increase in their employment share in other countries, but in India the latter has lagged far behind the former, so that now services sector is the major economic sector but a minor contributor to employment. In other words, major part of growth in this sector, which has been the main contributor to GDP growth, particularly during the last two decades, has been contributed by productivity growth and its employment generating potential has been very low. This contradicts the view held by some economists that services sector growth is primarily a result of its low productivity.

V Some Hypotheses on "Excess Growth" of Services in India

India thus seems to be following a growth path, which is different not only from the one traversed historically by the developed countries of today, but also is at variance with that being currently followed by other countries at similar levels of development and growing in similar global environment of increasing trade and capital flows. This path is characterised by a services-led rather than industry and manufacturing-led growth. And this characteristic seems to have become more prominent with the graduation of the Indian economy from a low-growth to high-growth trajectory over the past two decades. Distinctiveness of the pattern of India's economic growth over the past few decades has probably gone unnoticed among most economists, as the jubilation over achieving a high rate of economic growth and emergence of India as one of the fastest growing and a major economies of the world seems to have overshadowed the fact of rather intriguing and somewhat ahistorical pattern of its growth. Some economists have, however, taken note of it and attempted analysis of causes and implications of this pattern of growth characterised by "excess growth" of the services sector and its sustainability from the viewpoint of its implications for price stability, employment and income distribution (e.g. Mitra, 1988, Bhattacharya and Mitra, 1990, Bhalla 2004) and others have asked and attempted to examine the question: "Is India pioneering a new development path which gives primacy to services rather than manufacturing as the leading sector?" (Singh, 2005).

Some people doubt if all the growth of services that has taken place, particularly over the past two decades is, in fact, real. It is argued that a good part of this growth merely reflects a relocation of activities from the commodity producing sectors to the enterprises categorised in the services sector. It may be recalled that this phenomenon has been noted by some economists in explaining the increase in the share of services sector in developed countries as well. Changes in technology, production arrangements and market conditions together have facilitated and induced enterprises in industry to 'outsource', activities of 'service' nature carried out by themselves earlier, to the service providing enterprises. Thus packaging, labelling and distribution of manufactured goods is now being increasingly carried out by separate organisations and being accounted for in the services sector. Functions like maintenance and security of factory establishments are contracted out to companies and establishments specialising in these services. While these phenomena are being commonly observed in the economy, we, however, have no estimates of the impact of such relocation on the changing share of the commodity producing and services sectors. At the same time, while such relocation may have led to increase in share of services, a real increase in the volume of these services as a result of expanding industrial activity and changes in the demand pattern cannot be denied.

To some extent, it is argued, increase in the relative share of services, particularly in the community, social and personal services, and also probably in communications, finance and insurance, is 'spurious', primarily reflecting increase in salaries and employee compensation, not adequately accounted for in the deflation procedure (Bhattacharya and Mitra 1990). Effect of the implementation of the Fifth Pay Commission is referred to as an example in this context (Acharya, 2003). As is well known, the 'output' of the services sector is largely estimated on the basis of employee compensation, an increase in it without any increase in employment and real output gets reflected as increase in GDP. The fact that the GDP growth in services sector has far exceeded its employment growth lends credence to this view.

An alternative view that the relative growth of the services sector has not been different from commodity growth is also propounded on the basis of reclassification of sectors (Datta, 1989). It is argued here that a good part of the services growth is producer-demand induced; growth of commodity production has led to rising demand for services like trade, transport and communication and banking and insurance, and if the output generated in these sub-sectors to meet this demand is included in the commodity producing sectors, growth of services turns out to be no different from that of goods. An analysis for the decade of 1980's, however, does not seem to support this argument: intermediate demand for services declined from 41 per cent in 1978-79 to 38 per cent in 1989-90, while final demand for them correspondingly increased from 59 to 62 per cent (Satish Kumar and Mathur, 1996). In any case, a reclassification of subsectors may help explain growth of services, it does not negate their growth itself.

Any real explanation of faster growth and, therefore, increasing share of services has to be sought in terms of increasing demand – domestic and export – supplemented by changes in technological conditions and institutional arrangements to meet this demand. No detailed analysis on these lines has been attempted so far; nor is one intended here. Investigations to analyse the pattern of growth of the Indian economy, to test various hypotheses thrown up by historical experience of the developed countries, comparative experiences of similarly placed developing economies and the ones advanced in the case of India, as mentioned in the foregoing parts of this paper, need to be undertaken taking account of the developments in recent past, as most earlier attempts covered period up to 1990.

VI Some Questions and Concerns

Taking the growth of services and increasing trend of their share in national product to be largely 'real', what is intended in the remaining part of this paper is to raise certain questions regarding sustainability and some other implications of the emerging pattern of growth. These questions have been raised earlier as well (e.g. Bhattacharya and Mitra, 1990, Singh, 2005, Bhalla, 2004). But they bear repetition as, in my view, they are not only vital for the sustainability of growth process, but also give rise to serious concerns about the implications of the ongoing development pattern for macroeconomic stability and equity as well.

First, there is the question of macroeconomic balances. How far is the emerging pattern of production compatible with the pattern of consumption demand? The consumption basket of the Indian population still consists predominantly of commodities and only a small part of services. According to NSS data on consumption expenditure, 85 per cent of expenditure of rural and 74 per cent of that of urban households was incurred on food and manufactured goods, services accounting for only 15 per cent in the case of the former and 26 per cent in the case of the latter in 1999-2000. A production structure with 51 per cent services and 49 per cent goods already looks highly out of line with the demand pattern. There is no doubt that income elasticity of demand for services is high, but at India's level of per capita income, income elasticity of demand for commodities, particularly industrial goods is also high. For manufactured goods, income elasticity of demand works out to be 1.02 in rural and 1.05 in urban households, the corresponding figures for services are, of course, higher at 1.7 and 1.6. As a result, the demand for industrial goods is also bound to rise along with that for services, and with the production of industrial sector stagnating at around 25 per cent of GDP and that of manufactured goods at 15 per cent, a significant excess demand for them is certain to emerge, leading to inflationary pressures. One condition for ensuring balance between the patterns of demand and production would, of course, be a highly skewed distribution of income, so that a large part of the population remains at low levels of income with little demand for industrial goods, while a segment of population has disproportionately high level of incomes with very high demand for services and little demand for goods—agricultural or industrial. In fact, even the present sectoral pattern of production already suggests such an inequality in income distribution and its further accentuation will have serious socio-economic consequences.

There are obvious implications of the macroeconomic imbalance between production and consumption, for sustainability of economic growth itself. But in a globalising economy, it can be argued, macroeconomic balance does not have to be maintained on the basis of domestic production and consumption, as trade can be increased to ensure such a balance. In the emerging Indian scenario what it implies is that services are exported and goods imported. The second question, therefore, is the efficacy of the 'export-services-and-import goods' model. No doubt, export of services has increased rapidly in recent years accounting now for about 31 per cent of India's total exports of goods and services. It still, however, makes up only around 3 per cent of GDP, with all exports being 10.8 per cent of GDP (Economic Survey 2004-2005). With 51 per cent share, in GDP, exports thus make about 6 per cent of the output of the services sector. Thus, only a small part of the services seem to be tradeable or is being actually traded. The tradeable component of the services has, however, been increasing and several services like business processing, education and health and legal services, which were earlier regarded as non-tradeable, have now become tradeable and their exports can be expected to rise. But even if India has the capacity to produce tradeable services on an increasingly larger scale, their actual exports will depend on continuation of the current comparative advantage and the extent to which other countries emerge as competitors in the field. The commodity gap, that is, the excess of consumption over production, currently could be said to be around 29 per cent of GDP, with 78 per cent share in consumption and 49 per cent in production. Even if it declines with rising share of services in consumption, service exports will have to rise very fast and make up a major share in total production of services to meet this gap.

Third, there is the question of employment. As noted earlier, share of services in GDP has grown much faster than in employment, thus in 2002 contributing 51 per cent to GDP and only 22 per cent in employment. Contrary to the popular impression, services sector has thus not been generating employment commensurate to its output growth. Against an 8 per cent growth in output, employment in services sector has grown only at 3 per cent during 1994-2000 implying an employment elasticity of about 0.35. Growth rate and elasticity, no doubt, are higher than in the aggregate economy at 1.02 and 0.15. But the aggregate figures are highly depressed due to the weight of agriculture (60 per cent), which has shown virtually no growth in employment and as low as 0.02 employment elasticity during this period. Performance of industrial sector has been relatively better with a 2.5 per cent employment growth accompanying a 6.5 per cent growth in GDP, thus yielding an employment elasticity of 0.38. Within the industrial sector manufacturing registered a higher 2.6 per cent growth in employment. It may also be noted that employment elasticity of services declined sharply from 0.62 during 1988-1994 to 0.35 in 1999-2000, while in industrial sector it increased from 0.23 to 0.37 during the same period (Papola, 2004). In other words, employment intensity of the services sector is not only low, but has been sharply declining in recent years. Labour-intensive manufactures still hold and will continue to hold comparative advantage and, therefore, growth in their exports holds good prospects for achieving balance of trade and higher employment growth. During the 1990's employment in export oriented industries grew at a relatively high rate of 3.7 per cent with an employment elasticity of 0.48 (Goldar 2003, Ghose, 2004).

The fourth and the last question that I want to raise relates to growing income inequality implicit in the present pattern of output and employment growth. As already noted, there is an increasing asymmetry between the sectoral shares of GDP and employment with a strong likelihood of growing inequality in incomes among sectors, groups and individuals. With shrinking share of agriculture in GDP without a commensurate decline in its employment share, the income gap between agriculture and non-agricultural workers is rapidly increasing. With a 50 per cent share in GDP and 74 per cent share in employment, the ratio of per worker agricultural to non-agricultural incomes in 1960 was 1:3; now with 60 per cent workers and 21 per cent GDP in agriculture it is close to 1:6. Ratio between agriculture and services is 1:7 and between agriculture and industry 1:4. With increase in the share of services, this gap will certainly increase unless the growth is accompanied by an increase in the employment share of services. Employment structure is getting sharply polarised between a few high end jobs in large corporations and the mass of low productivity low earning jobs in the unorganised sector. The services sector is particularly characterised by large differentials in earnings, with a few jobs in high-tech activities with very high salaries and benefits, on the one hand, and a large mass of low earnings jobs in the informal sector, on the other. Fast growing sub-sectors of services like information technology are revealing such characteristics more prominently. The dynamic segments of the services sector are also locationally concentrated in a few States and large cities and, to the extent the new growth is derived from them, inter-regional differences in growth rates and development levels are also likely to increase.

My intention in highlighting these features of the ongoing pattern of growth is not to belittle the growth of services, which has been responsible for the transition of the Indian economy from a low growth trajectory to a high growth path for over two decades now, but to point out the implications and consequences of the relatively poor performance of the other, particularly the industrial sector. As the pattern growth in India has been different from the historical as well as contemporary experiences of development, it needs to be studied in its various dimensions to examine its sustainability and other macroeconomic and distributive implications. *Prima facie*, it appears to be reasonable to argue that the pattern of growth in the Indian economy will have to be sectorally more balanced than the present trends suggest. Growth of agriculture is vital not so much for generating more employment, but basically for raising the income levels of the people engaged in it. But industry, particularly manufacturing, needs to grow faster for ensuring macroeconomic balance between growing demand and supply of goods, price stability and trade balance. And above all, it needs to grow faster to generate employment, as it appears to be the only one among the three sectors, which has a reasonably high and growing employment intensity. Comparative advantage that India has in labour-intensive manufactured exports needs to be fully exploited, both for achieving trade balance and employment generation. Thus from every viewpoint, the argument that "Manufacturing Matters"[2] applies with a strong force in the case of India's future economic growth. For, even with revolutionary changes in technologies and larger trade possibilities in the globalised world, it is not realistic to expect that India will become a 'post-industrial' society without ever industrialising!

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NOTES

1. Some basic ideas on the subject were presented in Dr. Malcolm Adeseshiah Memorial Lecture on the occasion of the Silver Jubilee Conference of the Bengal Economic Association at Kolkata on 20 February 2005 (Papola, 2005).

2. This is the title of a book by Cohen and Zysman (1987), who argue that economic growth cannot be sustained without growth of manufacturing sector.

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