UNIT 11 GROWTH AND STRUCTURAL CHANGES

Structure

11.0 OBJECTIVES

After reading this unit, you will be able to:

- discuss the theoretical insights on inter-sectoral transfer of workforce;
- compare the trend in inter-sectoral transfer of workforce in India with the theoretical insight on the same;
- present a comparative profile of structural changes between India and developed countries;
- explain the inter-sectoral transfers in GDP shares in a comparative profile of India with other developing Asian countries;
- define the terms 'debt to GDP ratio' and 'junk status debt' and indicate their trends for major economies in the recent years; and
- describe the trends in growth rates of India in the recent years (2010-16) in a comparative profile with the world, other developed countries and BRICS economies.

11.1 INTRODUCTION

The process of economic development is historically associated with structural change in national economies. Structural change implies shifts in the shares of GDP and labour force from primary sector to the secondary and tertiary sector. Structural changes not only characterise economic development but are also

* Dr. Karmakar, Jadavpur University

necessary for sustaining economic growth. Kuznets and others have demonstrated that sustained growth is brought about by changes in sectoral composition of workforce. Changes in the structure of an economy would not only be an outcome of the rate of growth but also depends on the nature of development (e.g. human development, inclusive development).

11.2 INTER-SECTORAL TRANSFER OF WORKFORCE: THEORETICAL INSIGHTS AND TRENDS

Pioneering works by Fisher (1935), Clark (1946), Chenery (1960) and Kuznets (1971) suggest that in the early stages of development, the share of agriculture in both output and employment would be overwhelmingly large. But as industrialisation proceeds, the share of agricultural sector in income falls and that of industrial sector rises. Once countries have sufficiently industrialised and reached an advanced stage of economic development, the share of industry also declines while the share of services/tertiary sector rises. After an economy reaches a sufficiently high level of income, the rate of increase in demand for services increases sharply. This is because the services have a higher income elasticity of demand than for the goods of agricultural and industrial sectors.

Rowthorn and Wells (1987) provide a similar description of the pattern of structural change in respect of employment shift in the present day advanced economies. They found that the modern economic growth is associated with a decline in the share of agriculture in total employment resulting in an increase in both the proportion and number of workers engaged in non-agricultural sectors. The non-agricultural sector includes the industrial sector as well as commercial, government and personal and household service (PHS) sectors. In the first stage of development, called the industrial phase, the share of agriculture in total employment continues to decline and a domestic personal service sector builds up. So long as there is surplus labour employed in agriculture and adequate workers in domestic personal services, non domestic services can increase their share of total employment leaving the share of industry unaffected. But eventually, any significant rise in the share of non-domestic services will be at the expense of the industrial sector. The decline in the share of industry and corresponding increase in the share of services in total employment are referred to by Rowthorn and Wells (1987) as the phase of 'de-industrialisation' in the developed countries.

The importance of service sector activity is highlighted in a study of a sample of 123 non-socialist countries for the period 1970-1989 [Kongsemut, Rebelo and Xie (2001)]. The study notes a decline in the share of the agricultural sector, both in output and employment, as an economy matures. The decline is accompanied by an increase in the share of services in output and employment. Hence, as countries develop, there is an increase in the share of service sector economic activity. As a matter of fact, the service sector constituted 70 percent of world GDP in 2016. Using data on a cross section of developed and developing economies over the period from 1950 to 2005, Eichengreen and Gupta (2009) identify two waves of service sector growth: a first wave as a country moves from 'low' to 'middle' income status and a second wave as it moves from 'middle' to 'high' income status.

In case of India, the share of agriculture in GDP declined from 60 percent in 1950-51 to 24 percent in 2002 and further to 17 percent in 2015. The industrial sector increased its share from 16 percent in 1960 to 25 percent in 2002 but thereafter its increase slowed down (reaching only 25.8 percent in 2015). On the other hand, the share of services sector increased from 21 percent in 1960 to 51 percent in 2002 and 57 percent in 2015. The difference between India and the developed and emerging economies is that while most of the latter entered the phase of predominance of services sector, graduating sequentially from predominance in agriculture, first to manufacturing and then to services, Indian industry failed to show such a trend. It stagnated in the expansion of its industrial sector but leap frogged to a significant expansion of the services sector. Whether this trend was unique to India or whether it was followed by any other economy too is thus an aspect to which we shall now turn to see.

11.3 COMPARATIVE PROFILE OF STRUCTURAL CHANGES: INDIA VS DEVELOPED COUNTRIES

The historical pattern of structural changes in the presently developed countries have had a similar stage of sectoral structure about 100 to 150 years back as India had at the beginning of its independence. This is to say that most of the developed countries of today, around the year 1900, embarked upon their industrialisation with about 60 percent of GDP accounted for by agriculture. Industry and services contributed about 13 and 27 percent respectively in these economies. Thus, the Indian economy in 1950 was structurally comparable to the economy of the Great Britain in late eighteenth century, of Japan in 1900, of Germany at the beginning of the nineteenth century and United States and Italy of mid-nineteenth century. Similar comparisons hold in respect of the share of labour force in the three leading sectors in which in 1950 India had the relative shares of 73 percent in agriculture, 11 percent in industry and 16 percent in services. This is comparable with the United States of 1841 when it had about 72 percent of its workers in agriculture, 12 percent in industry and 16 percent in services, or Japan of 1880 with the respective shares of employment in the three sectors being 65, 15 and 20 percent. The main features that, therefore, come out from this historical pattern of changes in the economic structure observed in today's developed countries are:

1) all developed countries followed a similar sequence of changes in their economic structure with predominance of agriculture before attaining their developed status;

2) the structure of the economies of most developed countries is similar in the sense that in their developed state each of them has a miniscule share of agriculture, then a slightly higher share of industry and then a much higher share of services in their national output; and

3) the share of each sector's employment, moves in line with the output share of that sector i.e. highest share in employment in the services sector, a medium share in industries and the lowest share in agriculture.

Economic development in India over a period of half a century (1951-2004) experienced the same pattern of structural changes that the developed economies of today underwent over a period ranging backwards by 100 to 150 years. The share of agriculture in GDP declined from around 60 percent in 1950-51 to 17 percent in 2016-17, share of industry increased from 13 to 29 percent and of services increased from 28 to 54 percent over the corresponding period. This pattern of shift has been continuous throughout the period of over half a century but the pace of shift has been faster since 1990-91. The first forty years saw a decline in the share of agriculture from 60 percent to 35 percent whereas the next 25 years reduced it from 35 to 17 percent. Share of services, on the other hand, increased from 28 to 40 percent in the first 40 years and from 40 to 54 percent in the next 25 years. Share of industry in GDP which had stagnated up to 2003-04 has since picked up to reach the level of 29 percent in 2016-17.

But the most striking feature of the structural change in the Indian economy in recent (two and a half 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 to growth, at least in the initial period of economic development, has played only a minor role in India's economic growth. While developed countries entered the phase of predominance of services in their economies after going through a major phase of industrialisation where the industry attained a share of 50 percent in the economy, the Indian case is different. India has marched towards a post-industrial 'service economy' without industrialising. Such a swift and a historical transition of an economy, directly from an agricultural to a service economy bypassing industrial development can be explained on two fronts. First, technological advancements over the past few decades have led to increasing demand for services in countries even at a relatively low level of per capita income. Development of communication technologies and movements of people across countries have produced demonstration effect creating similar pattern of demand in developing as well as developed countries leading to larger demand for services. As a result, elasticity of demand for services has become greater than unity even in countries with relatively low per capita income levels. This has led to a rise in the contribution of services in national product. Second, with increasing openness of economies and trade playing significant role in them, changes in demand pattern are met through trade. Trade, thus, has served as a driving force in bringing about this bypassing of industries by services.

Check Your Progress 1 [answer within the space given in about 50-100 words]

1) What is the underlying reason for the theoretical insight on the sectoral transition of income first from the primary to the industry and then in the later stages from the industry to the services sector?

....

....

....

....

2) What does the term 'de-industrialisation' used by Rowthorn and Wells mean?

....

....

....

....

....

....

3) What has been the experience of India in respect of its sectoral share in GDP over the period 1960 to 2015?

....

....

....

....

4) What are the common features that could be stated from the historical trends of inter-sectoral shares of GDP and employment for today's developed countries and India?

....

....

....

....

5) How would you compare the pace of structural change in India, in terms of inter-sectoral share in GDP, over the years 1951 to 2017?

....

....

....

....

11.4 COMPARATIVE PROFILE OF STRUCTURAL CHANGES: INDIA VS OTHER DEVELOPING ASIAN COUNTRIES

To place the performance of the Indian economy in a comparative framework, we can consider economies of South East Asia and East Asia viz. China, Indonesia, Malaysia, Pakistan, Thailand and Republic of Korea. Share of the agricultural sector in their GDP has decreased for all the countries and that for services sector has increased over the period 1960-2015. Important trends in this respect can be stated as follows.

Share of Agricultural Sector in GDP (agriculture-GDP)

- The share of agricultural sector in GDP was higher than 50 percent in 1960 for only two of these seven countries viz. Indonesia (50 percent) and India (55 percent). By 2015, their respective shares in 'agriculture-GDP' had decreased to 14 percent and 17 percent respectively.

- In 1960, China had the lowest share by agriculture to its GDP than all the other countries (30 percent). By 2015, China is one of the three countries whose contribution to GDP had declined to less than 10 percent (8.6 percent); the other two countries being Malaysia (9.1 percent) and Korea (2.7 percent).

- Even by 2002 itself i.e. by the beginning of the millennium, three countries had achieved decline in their share of agriculture-GDP below the 10 percent mark. These three countries are: Thailand (9 percent), Malaysia (9 percent) and Korea (4 percent). However, Thailand's share of agriculture-GDP increased to 12.4 percent by 2015.

- Malaysia is notable to have maintained its level although there was a marginal increase in its share of agriculture-GDP to 9.1 percent in 2015. China joined this distinctive category by achieving decline in its agriculture-GDP from 15 percent in 2002 to 8.6 percent in 2015. Korea is the only country whose share of agriculture-GDP had declined below the 5 percent mark by 2015 (2.7 percent).

Table 11.1 : Changes in Sectoral Shares (%) in GDP in Some Asian Countries (1960-2015)

Countries	Agriculture			Industry			Services		
	1960	2002	2015	1960	2002	2015	1960	2002	2015
China	30	15	8.6	49	51	39.8	21	34	51.6
Indonesia	50	18	14.3	25	45	46.9	25	38	38.8
Thailand	40	9	12.4	19	43	44.7	41	48	42.9
Malaysia	36	9	9.1	18	47	41.6	46	44	49.3
Korea	37	4	2.7	20	41	39.8	43	55	57.5
Pakistan	46	23	21.8	16	23	23.6	38	54	54.6
India	55	24	17.4	16	25	25.8	29	51	56.9

Source: Compiled from Papola (2012) and WDR database

- The two points made above are specified with the view that the share of agriculture-GDP to fall below 10 percent is a landmark achievement and to achieve a further decline below 5 percent is a even major landmark to achieve.
- In developed countries the share of agriculture-GDP is very low (e.g. US – 1.1 percent in 2015 and UK – 0.6 percent for same year).

Share of Industrial Sector in GDP (industry-GDP)

- Moving on to the share of industry-GDP, China is the sole country whose industry-GDP share was close to 50 percent in 1960 (49 percent). All other countries had less than 20 percent share of industry-GDP in 1960 with the exception of Indonesia (25 percent).
- However, China's share of industry-GDP slid down below 40 percent mark by 2015 (39.8 percent). This is a steep reduction although a reduction in industry-GDP over 2002-15 is observed for Malaysia and Korea too.
- Korea had increased its industry-GDP from 20 percent in 1960 to 41 percent in 2002 but since then there has been a slight decline to 39.8 percent in 2015.
- Share of industry-GDP was similar for three countries viz. Indonesia, Thailand and Malaysia. This is in the sense all three had their industry-GDP share closer to the 20 percent range in 1960 (Indonesia, 25 percent; Thailand, 19 percent; Malaysia, 18 percent). By 2002, all these three

countries along with Korea had crossed the mark of 40 percent in their industry-GDP share (Korea, 41 percent; Thailand, 43 percent; Indonesia, 45 percent and Malaysia 47 percent). More notably, over the next 10+ years i.e. by 2015, Indonesia and Thailand had marginally increased their industry-GDP share (to 47 percent and 45 percent respectively), whereas, for Malaysia and Korea there was a decline in this respect (to 41.6 percent and 39.8 percent respectively).

- Both India and Pakistan are outliers in respect of their industry-GDP share i.e. both had the same share of 16 percent in 1960 and both had not only marginally improved their industry-GDP share by 2002 (to 25 and 23 percent respectively) but both demonstrated a stagnancy with a very marginal increase in their industry-GDP share over 2002 to 2015 (to 25.8 and 23.6 percent respectively).

- Over 2002 to 2015, the stagnancy observed in industry-GDP share in India and Pakistan had also set-in in Korea, Indonesia and Thailand with varying degrees marginally differing from each other (Table 11.1). However, the structural shift or change is marked for an expansion of industry with a corresponding decline in agriculture-GDP (i.e. as the historical trend revealed for the developed economies and also as the theoretical insights had outlined) more markedly for all countries except India and Pakistan. The expansion of industry is not to the extent as in other five economies for these two countries.

Share of Services Sector in GDP (service-GDP)

- The highest shift over the period 1960-2015 in the service-GDP is for China (30.6 percent) followed by India (27.9 percent) i.e. 31 percent and 28 percent rounded to the nearest digit.

- Malaysia is an outlier in the sense that it had reached its peak level in 1960 itself in its service-GDP (46 percent) and over the next 55 year period its service-GDP share has increased by the smallest measure among all these seven economics (i.e. 3.3 percent).

- Thailand and Korea are the other two economies whose service-GDP share was higher than 40 percent in 1960. Korea has seen an increase of 14.5 percent since then up to 2015 whereas Thailand had increased its service-GDP share by 7 percent up to 2002 but has since experienced a steep decline to 43 percent in 2015. This means over the long term horizon of 1960-2015, Thailand's increase in service-GDP is the lowest i.e. a mere 2 percent.

- Pakistan's service-GDP had increased by 16 percent over the period 1960-2002 to reach the level of 54 percent but has since shown stagnation – its share in service-GDP having risen only by 0.6 percent.

- India experienced the highest increase in service-GDP over the period 1960-2002 i.e. by 22 percent. Its increase in this respect over the period 2002-15 has been modest at 5.9 percent (i.e. 6 percent rounded).

Employment Shift over 1991-2017

- Shift of labour force from agriculture has been slower than that in GDP in all countries. Over the period 1991-2017, China has managed to reduce their agricultural sector employment by half) from 55 to 27 percent [Table 11.2].

During this period, India has managed to reduce it by one-third (from 63 to 44 percent). Japan stands out as the country employing least workforce in agriculture (single digit for both time points).

- Share of industry in labour force shows that four countries viz. Malaysia, Sri Lanka, Philippines and Pakistan have experienced a period of stagnation for employment absorption in their industries. In contrast, India has increased its share of industrial employment from 15 to 25 percent. With this percentage increase, India is the second among these 10 countries (first is Vietnam where there is a 14 percent increase) to have created industrial employment of this magnitude as all other countries have done less than this [e.g. China, 6%; Indonesia, 8%].

- What distinguishes India from other countries of this group is the difference in the absorption of employment by the services sector. In all other countries, the share of services sector has increased more or less in tune with that of GDP. However, in India the employment share has shown much smaller increase that the shift in the GDP share to the services sector. This means, whereas the services sector is the major economic sector in terms of its contribution to GDP, it is a minor contributor to employment.

- In services sector, all the 10 countries without exception have had their employment share increased. However, countries which have managed to achieve an increase of more than 15 percent over this period (1991-2017) are: China (23 percent), Thailand (18 percent), Vietnam (17 percent) and Malaysia (15 percent). Indonesia and Japan have increased their services sector employment by 13 and 12 percent respectively. India, with a 9 percent increase in this respect, is among the three countries which have managed to create additional employment avenues in the services sector of the lowest order [the other two countries in this bracket being Philippines (8 percent) and Pakistan (5 percent).

Table 11.2: Share of Employment by Major Sectors (Percentage to Total Employment)

Major Asian Economies	Agriculture		Industry		Services	
	1991	2017	1991	2017	1991	2017
China	55	27	19	24	26	49
India	63	44	15	25	22	31
Indonesia	53	31	14	22	33	46
Japan	7	4	35	27	58	70
Malaysia	26	12	27	27	46	61
Pakistan	48	42	20	20	33	38
Philippines	43	28	15	16	42	50
Sri Lanka	42	27	26	26	32	47
Thailand	60	34	15	23	25	43
Vietnam	73	42	9	23	18	35

Source: ILO [http://www.ilo.org/global/statistics-and-databases]

Check Your Progress 2 [answer within the space given in about 50-100 words]

1) Which are the only two countries which had its agriculture-GDP share more than 50 percent in 1960? What are their current levels in this regard (in 2015)?

....

....

....

....

....

2) Which country had the lowest share of all others in 1960 in agriculture-GDP? What is its share in 2015? Which are the other two countries which have also achieved this level in 2015?

....

....

....

....

....

3) In what respects, Korea stands out as unique among all these 7 countries in comparison?

....

....

....

....

4) In respect of industry-GDP, what is notable about China?

....

....

....

....

5) Why are India and Pakistan outliers in respect of their industry-GDP?

....

....

....

....

....

6) Which are the two countries that have experienced the highest shift in services-GDP over the period 1960-2015?

....

....

....

....

7) How does Thailand stand out in respect of its Services-GDP?

....

....

....

8) What is remarkable about the Indian services sector in comparison to other economies?

....

....

....

11.5 COMPARATIVE PROFILE OF STRUCTURAL CHANGES: INDIA VS DEVELOPED AND BRICS ECONOMIES

Structural change in economies would indirectly derive from the growth rates experienced at the overall economy level. Both the growth rates achieved and the resulting structural changes are a reflection of overall policy and institutional insights. From this point of view, although not directly, taking a look at the comparative profile of overall economic growth rates is useful. A comparative profile of this scenario for a mix of countries comprising of developed and the developing or emerging economies is presented in Table 11.3. Major features that flow from the figures therein are the following.

Table 11.3: Comparative Growth Profiles for Developed and BRICS Economics (%): 2010 to 2016

Year	World	USA	Euro-zone	Germany	Japan	Brazil	Russia	India	China	South Africa
2010	5.2	3.0	1.8	3.6	4.4	7.5	4.5	9.9	10.4	5.4
2011	3.8	1.8	1.5	3.0	-0.9	3.9	4.3	7.4	9.2	4.4
2012	2.4	2.2	-0.9	0.5	1.5	1.9	3.5	5.6	7.8	3.8
2013	2.6	1.7	-0.3	0.5	2.0	3.0	1.3	6.4	7.8	4.8
2014	2.8	2.3	1.2	1.6	0.4	0.5	0.7	7.5	7.3	4.6
2015	2.7	2.6	1.5	1.7	1.2	-3.8	-2.8	8.0	6.9	3.3
2016	2.4	1.6	1.8	1.9	0.9	-3.6	-0.2	7.1	6.7	1.2

Source: World Bank database

- The global economic growth rate has halved over the short term period of 2010 to 2016 from 5.2 percent in 2010 to 2.4 percent in 2016 (Table 11.3). In particular, the US economy's growth rate has also slid down from 3 percent in 2010 to 1.6 percent in 2016. A similar declining growth trend is noticed for Germany (from –3.6 percent in 2010 to 1.9 percent in 2016), Japan (from 4.4 percent in 2010 to 0.9 percent in 2016) and South Africa (from 5.4 percent in 2010 to –1.2 percent in 2016)

- Economies of Euro-zone, Japan, Brazil and Russia have experienced negative growth rates for some year or the other during the period 2010-16. In particular, Brazil's economy has slumped from a high of 7.5 percent growth in 2010 to a low of –3.6 percent in 2016 and of Russia from 4.5 percent growth in 2010 to –0.2 percent in 2016.

- India and China are two countries which stand apart in this regard. Both the countries have experienced declining growth performance in their economies, in tune with the global trend, but from a high growth rate in 2010 to a lower growth rate in 2016. While China's growth rate has declined from 10.4 percent in 2010 to 6.7 percent in 2016, India's growth rate has declined from 9.9 percent in 2010 to 7.1 percent in 2016.

A number of downside risks continue to linger on the horizon. These include: (i) continued sluggishness of the global economy, (ii) possible capital outflows consequent upon the recent increase in the interest rate in USA, (iii) a possible reversal of the global oil price trends, (iv) inadequate monsoon rainfall and financial market vulnerabilities. Besides recession in some economies as noted above, a growing trend of concern in many economies has been the increasing debt-to-GDP (DTG) ratio. For instance, China experienced a high DTG ratio of 250 percent. Likewise, as per two rating agencies, Brazil's DTG has been demoted to a junk status.

11.6 LET US SUM UP

Structural change during the development status is theoretically expected to result from agricultural to industry and then from industry to services sectors. Such a change is a reflection of rising incomes and better living conditions. Many developed economies have experienced this type of transition in the course of their development. However, some emerging economies like India have reached a higher share of services sector in GDP with their industrial GDP share having remained low at around 25 to 30 percent. This is in contrast to some other economies like China, Indonesia, Thailand, Malaysia and Korea all of which have a stronger industrial base of around 40 to 50 percent. One of the reasons for such a skip over of the industrial sector's expansion i.e. directly to services sector dominated share in the GDP, is the impact of 'international trade'. This is also aided by the developments in the communication technologies and people's movement across countries. There is a declining trend in the overall economic growth rates experienced by many developed countries with many advanced economies like US, Germany and South Africa registering half of their growth rates in more recent years like 2016 as compared to what they achieved in 2010. India and China are two countries standing out as exceptions to this declining trend. An yet another striking feature of services sector's dominance in countries like India is its relative low employment absorption potential.

11.7 SOME USEFUL BOOKS

1) Kuznets, S (1966). *Modern Economic Growth: Rates, Structure and Spread*, Oxford and IBH Publishing Co.

2) Kuznets, S. (1971). *Economic Growth of Nations: Total Output and Production Structure*, Cambridge: Harvard University Press.

3) Papola, T. S. (2008). Emerging Pattern of Indian Economy, *The Indian Economic Journal*. Vol.54, No.1, April –June.

4) Papola, T. S. (2005). 'Structural Changes in the Indian Economy: Some Implications of the Emerging Pattern', *Artha Beekshan*, Vol. 13, No. 4,

5) Rakshit, Mihir (2007). Services Led Growth: The Indian Experience, Artha Beekshan , Vol.15, No. 4.

11.8 ANSWERS OR HINTS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress 1

1) This is because of the reason that the services have a higher income elasticity of demand as compared to the goods of primary and industrial sectors.

2) The phrase is referred to in the sense that increase in the share of employment, after a certain phase of industrial development, will be solely at the cost of industrial sector's employment share i.e. decline in the share of industry is matched by the corresponding increase in the share of service sector's employment.

3) Share of agriculture in GDP decreased substantially from a high of 60 percent in 1951 to 17 percent in 2015. However, while the share of industry's income in GDP rose from 16 percent to 25 percent over 1960 to 2002 but thereafter nearly stagnated (by reaching up to only 25.8 percent by 2015). For the services sector the increase was significant: from 21 percent in 1960 to 57 percent in 2015.

4) These are: (i) in GDP the developed countries had a predominant contribution from agriculture (between 65 to 72 percent) followed by industry (12 to 15 percent) and services (16 to 20 percent. For other common features, see Section 11.3 and answer.

5) The pace of change has quickened since 1991. Agricultural share decreased from 60 percent to 35 percent up to 1991 (i.e. a decline of 25 percent) but by 2017, it had further fallen to 17 percent (i.e. by another 18 percent since 1991). Share of industry which had increased by a mere 0.8 percent, from 25 to 25.8 percent over the period 2002 to 2015, has suddenly improved its share to touch 29 percent in 2017. Share of services sector has increased from 28 to 54 percent over the period 1951-2017.

Check Your Progress 2

1) Indonesia and India. 14 percent and 17 percent respectively.

2) China (30 percent); 9 percent in 2015. Korea and Malaysia are the other two

countries (3 and 9 percents respectively). In fact, Malaysia and Korea had achieved this level of less than 10 percent share in 2002 itself. But Malaysia's share in 2015 in its agriculture-GDP has increased to 12 percent.

3) Korea is a unique case which has most exactly followed the theoretical insights indicated by literature. Not only its agriculture-GDP is the lowest and below 5 percent level, a distinction it had achieved in 2002, its industry-GDP had doubled from 20 percent in 1960 to 41 percent in 2002 – a level it has nearly consistently maintained up to 2015. Further, its rising services-GDP is consistent (i.e. without any sign of decline or stagnancy as seen in case of other countries).

4) First, it is the only country which had the highest and close to 50 percent share even in 1960 (49 percent). Second, whereas in all countries there is an increase in industry-GDP, China is the only country where there has been a steep decline (from 51 to 40 percent over 2002-15).

5) They are the two countries with the lowest of industry-GDP. Secondly, they have nearly stagnated in this respect over the period 2002-15.

6) China and India (31 percent and 28 percent).

7) It had one of the highest services-GDP in 1960 itself (i.e. more than 40 percent). And over the long term time frame of 1960-2015, its services-GDP has increased by a mere 2 percent.

8) The shift of services-GDP is higher. Corresponding shift in employment is smaller.