

## Research Paper



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## EMERGENCE OF SERVICES SECTOR AS THE LARGEST SECTOR IN INDIA: A RE-EXAMINATION

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### ABSTRACT

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*Services sector has been hailed as the new driver of the Indian growth story ever since it has emerged as the largest sector of the economy. Many studies assert that services sector has grown faster than the secondary sector since independence and as a consequence emerged as the largest sector of the economy. The objective of this study is to examine whether or not the services sector grew faster than the secondary sector since independence. The analysis of the GDP data series over the 1950-51 to 2012-13 period brought out some illuminating conclusions. Till the mid nineties, the secondary sector was the fastest growing sector of the economy and not the services sector. So the emergence of the services sector as the largest sector in terms of GDP share in mid eighties cannot be explained by its faster growth than secondary sector since independence ; rather it is explained by its initial big size in the early fifties . Though the secondary sector share was growing at a higher rate during this period but due to its initial small size its gains could not make it the largest . It is only in the mid nineties that the services sector surpassed the secondary sector in the rate of growth. In the last decade the growth in the share of services sector in GDP has stagnated and this should now be a matter of some concern to the our policy makers , especially if services sector is expected to be the leading engine of economic growth in the coming years.*

**KEYWORDS:** Growth, India, Secondary , Sectoral shares, Services Sector

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### INTRODUCTION

The emergence of Services sector as the largest sector of the Indian economy (in terms of share in gross domestic product) has attracted considerable attention, both of economists as well of policy makers. Consequently, a number of studies on the growth of services sector have appeared in recent years. As a result of these studies an impression seems to be getting created that services sector has been the fastest growing sector of the Indian economy since independence. Many of the existing studies, explicitly or implicitly, assert that services sector has grown faster even compared to the secondary sector. Although some of the researchers have been careful in pointing out the fact that it is the secondary sector which grew the fastest during the post 1947 period; still the impression about services sector being the fastest growing sector is getting entrenched in the minds of economists and lay scholars. Many factors seem to be responsible for this impression. Firstly, the emergence of a sector as the largest sector of the economy automatically results in creating an impression that it must be the fastest growing sector; only the fastest runner emerges ahead of all others in the race. Secondly, some economists arrived at such a conclusion by comparing the growth rates of gross domestic product originating in the services sector and the commodity

(primary + secondary) sector and rightly concluded that services sector was growing than the commodity sector.

However, from this very valid conclusion, some slipped inadvertently into the invalid assertion that services sector has been the fastest growing sector of the economy since India gained independence; forgetting that the commodity sector is the aggregation of a fast growing manufacturing sector and slow growing agricultural sector. Thirdly, no study seems to have compared the growth in the GDP share of services sector with that of the other two sectors, for the entire post independence period. Most of the existing studies pertain to various segments of the post independence period, and that may have contributed in creating the impression that services sector has been the fastest growing sector of the Indian economy.

The main focus of this paper is to investigate rigorously whether or not the services sector has been the fastest growing sector of the economy, during the post independence particularly in comparison to the Industrial sector. The paper is divided into five sections. In section one methodology and data used are described .In section two, changes in the share of services sector and other sectors in gross domestic product over the 1950-51 to 2012-13 period are described with the help of a table .h. In section three the



trends and growth rates of the gross domestic product originating in the services sector and other main sectors are estimated and analysed. Section four brings out the trends and growth rates in the percent share of services sector and other sectors in gross domestic product. In the last section growth rates of GDP shares of services sector and secondary sector are compared in different segments of the post-independence period.

**1. DATA AND METHODOLOGY**

The trends in the share of services sector and the other two main sectors in gross domestic product (GDP) over the post Independence period (1950-51 to 2012-13) have been analyzed and compared. For this purpose, the data series released by C.S.O. on GDP at 2004-2005 constant prices have been used. The standard definitions of services sector, secondary sector and primary sector have been retained and used in this study. It is important to point out here that services sector does not include construction. Gross domestic product originating in construction activities is included in the secondary sector. The commodity sector is defined as the aggregation of primary and secondary sectors.

The trends and growth rates have been estimated with the help of the standard semi-log regression model. More specifically the following trend/growth semilog model was estimated with the OLS method to calculate the growth/decline rates using the following standard formula.

$$CAGR = [Anti \log (\text{Regression coeff.}) - 1] \times 100$$

**2. SECTORAL SHARES IN GDP: CHANGE OVER THE 1950-51 TO 2012-13**

To begin with a simple description of the profile of changes in the share of services sector and the other two sectors in gross domestic product is provided. The shares of the three sectors in GDP at selected eight points of time are given in table 1 show the change in the sectoral shares in gross domestic product over the 1950-51 to 2012-13 period. The information given in table 1 clearly reveals the major changes in the sectoral composition of gross domestic product that have occurred since independence. The percent share of services sector has shown a steady increase from 30.3 % in the early 1950's to 58.4 % in the early years of the present decade.

**Table 1: Sectoral Shares in GDP (GDP at 2004-05 Prices)**

Time period (Average for triennium ending)	Percent Shares in GDP		
	Services Sector	Secondary Sector	Primary Sector
1952-53	29.6	14.4	53.6
1962-63	30.9	18.6	48.4
1972-73	34.2	21.9	42.4
1982-83	38.1	23.1	38.1
<b>1987-88</b>	<b>40.3</b>	<b>23.1</b>	<b>35.7</b>
1992-93	43.5	23.8	32.5
2003-04	51.9	24.2	23.9
2012-13	58.4	25.4	16.2

Source: GOI, C.S.O., National Income Accounts Statistics (Revised Series), 2004

The share of Services sector in GDP has almost doubled since independence. This was closely followed by the share of secondary sector in gross domestic product; which increased 1.8 times over this period; it grew from 14.4% in the early 1950's to 25.4% in the triennium ending in 2012-13. The share of the primary sector in gross domestic product registered a considerable decline over this period; from as high as 54.9% in the early 1950's to just about 16.2% in early 2010s. It can be seen from the information given in table 1 that the primary sector was the largest sector of the Indian economy in the early 1950's, but by the mid 1980's the services sector over took it and emerged as the largest sector. Looking at the changes in sectoral shares in gross domestic product during the post independence period it clearly comes out that the services sector emerged as the largest sector in the mid eighties. Notwithstanding the emergence of services sector as the largest sector of the economy by mid 1980's, the information given in table 1 also suggests that it was the GDP share of secondary sector, and not that the Services sector, that grew faster till mid 80s 1952-53 to 1987-88. The GDP share of Services sector went up by almost about 1.3 times over this period, compared to 1.6 times rise in the share of the secondary sector. This conclusion suggested by simple comparison of figures in table is rigorously tested in the next section.

**3. GROWTH OF SECTORAL DOMESTIC PRODUCTS. (1950-51-2012-13)**

The change in the share of a sector in gross domestic product is determined by the growth rate of its output (GDP

originating in it) relative to the growth rate of output in the rest of the economy. If the gross domestic product originating in a sector grows at a higher rate than the GDP originating in the rest of the economy, then its share in GDP improves and vice versa. This relation between change in the GDP share of a sector and the relative growth rate of its output vis-à-vis the rest of the economy can be stated in terms of the following equation adapted from Simon Kuznets's formulation to describe the decline in the share of agricultural sector<sup>5</sup>.

$$1+r_b / 1+r_a = X_0 / Y_0 [(Z_1 / X_1) - 1]$$

Where X = Output (GDP originating) of sector A

Y = Output of all the other sectors taken together.

Z = X + Y = total output

r<sub>a</sub> = rate of growth (percent per year) of output of sector A over period 0, 1

r<sub>b</sub> = rate of growth of output of all the other sectors taken together over period 0, 1

So when r<sub>a</sub> > r<sub>b</sub>, the GDP share of sector A improves and when r<sub>a</sub> < r<sub>b</sub> it declines.



**Table – 2: Growth of Sectoral Domestic Product: 1950-51 to 2012- 13 (GDP in crores at 2004-05 prices)**

Eq. No.	Dependent Variable GDP (log form)	Estimated Coefficients			Growth Rate (Percent per year)
		R. Square	Intercept	Coefficient of time variable	
1.	Services Sector	0.99	6.43	0.057 (65.52) <sup>a</sup>	5.7
2.	Secondary Sector	0.99	5.96	0.053 <sup>a</sup> (95.31)	5.3
3.	Primary Sector	0.98	7.25	0.027 <sup>a</sup> (76.33)	2.7
4.	Commodity Sector (2+3)	0.99	7.442	0.037 <sup>a</sup> (75.8)	3.7

**Notes:**

1. Figures in parenthesis are t-values.
2. <sup>a</sup> indicates significance at 1% level for a two tailed test.
3. Growth Rate= [antilog (slope coefficient of time)-1] x 100

In view of this relation between change in the GDP share of a sector and the relative growth rate of its output vis-à-vis rest of the economy, it will be useful to compare the growth rates of GDP originating in different sectors. It may be seen from this Table 2 that the semi-log trend model is quite a good fit to describe the growth of GDP originating in different sectors; the R-square is greater than 0.95 in each of the four equations. The picture of relative growth of sectoral domestic products becomes clear when we compare the growth rates given in the last column of Table 2. The faster growth of services sector compared to commodities producing sector comes out clearly. It is seen that GDP originating in originating in the services sector grew at the rate of 5.8% per annum, where as the GDP originating in the commodity sector (Primary and Secondary sectors taken together) grew at a much slower rate of 3.8%, per annum during the 1950-51 to 2012-13 period. The comparison of growth rates of sectoral gross domestic product over the 1950-51 to 2012-13 period clearly suggest that services sector grew faster than the commodity sector thus validating Kuznets hypothesis. But the growth rates of GDP originating in services sector and secondary sector are only marginally different even for this entire post-independence period. Already figures in table one have suggested that upto 1987-88 the secondary sector was growing faster than the services sector. So, it will be fruitful

to compare the growth rates of Services sector and secondary sector GDP share in the various sub periods .The results of this exercise are given and discussed in next section.

#### 4. GROWTH OF GDP SHARES OF SERVICES AND SECONDARY SECTORS IN THE SUB-PERIODS.

To analyze the emergence of services sector as the largest sector of Indian economy a sub-period wise comparison of the change in the growth rate of GDP shares of Services and Secondary sectors was carried out and results are reported in table 4 . For this purpose the following seven segments of the entire period were used: (i) 1950-51 to 1970-1971; (ii) 1950-51 to 1980-81; (iii) 1950-51 to 1985-86 ; (iv) 1950-51 to 1989-90 (v) 1950-51 to 1996-97 ; (vi) 1950-51 to 2003-2004 and (vii) 1950-51 to 2012-2013. The duration of successive sub- periods in extended to exactly find out the time point at which Services sector share of GDP started growing at a faster rate than secondary sector share. For each of these time segments the growth rates of the GDP share of services sector and secondary sector were computed from the coefficients of time variable in the estimated semi-log trend models. To save space and keep the table compact, the estimated equations are not reported in their entirety , but only the regression coefficients of time variable and the corresponding growth are reported in table 3 .

**Table – 3 GDP Share of Services Sector and Secondary Sector: Comparison of Growth Rates for Sub-periods**

Sr. No.	Sub-Period	Services Sector		Secondary Sector	
		Coefficient of time variable	Growth Rate	Coefficient of time variable	Growth Rate
1.	1950-51 to 1970-71	0.008 (9.68) <sup>a</sup>	0.8	0.026 (18.55) <sup>a</sup>	2.6
2.	1950-51 to 1980-81	0.009 (19.17) <sup>a</sup>	0.9	0.018 (14.18) <sup>a</sup>	1.8
3.	1950-51 to 1985-86	0.009 (25.65) <sup>a</sup>	0.9	0.015 (13.07) <sup>a</sup>	1.5
4.	1950-51 to 1989-90	0.010 (28.72) <sup>a</sup>	1.0	0.013 (12.86) <sup>a</sup>	1.3
5.	1950-51 to 1996-97	0.010 (38.76) <sup>a</sup>	1.0	0.011 (13.19) <sup>a</sup>	1.1
6.	1950-51 to 2003-04	0.011 (46.23) <sup>a</sup>	1.1	0.09 (12.73) <sup>a</sup>	0.9
7	1950-51 to 2012-13	0.012 (59.66) <sup>a</sup>	1.2	0.008 (13.85) <sup>a</sup>	0.8

**Notes:**

1. Figures in parenthesis are t-values.
2. <sup>a</sup> indicates significance at 1% level for a two tailed test.
3. Growth Rate= [antilog (slope coefficient of time)-1] x 100

The information displayed in table 3 clearly reveals that till beginning 1990s, the GDP share of secondary sector was growing at a faster rate compared to the GDP share of services sector. In the first period i.e. from 1950-51 to 1970-71, the share of secondary sector in GDP grew at the rate 2.5%, where as that of the services sector grew only at the rate of 0.8%. So the secondary sector was growing at almost 3 times the rate of services sector. In the 1950-51 to 1980-81 period, the growth rate of Secondary sector's share in GDP slowed down to 1.7 percent, but still was double the growth rate of the GDP share of the services sector which grew at a much lower 0.8 percent. The same comparative pattern is observed in the next two periods considered here. It is only in the sub period 1950-51 to 1996-97 that the two sectors grew at the same rate of 1.1 percent. It was observed that although the GDP share of the secondary sector had been growing faster than that of the services sector, the gap in the growth rates of their GDP shares progressively narrowed over time till the mid nineties. Thereafter the GDP share of services sector grew at a faster rate than secondary sector which may be mainly attributed to the liberalization of the economy and fast growth of information technology sector since early 1990's. So the emergence of services sector as the largest sector of the economy in mid eighties is not due to its GDP share growing at a higher rate compared to secondary sector, but more because of its much bigger share in GDP in the initial years i.e. early 1950s (table 1). In the early 1950's the share of services sector in gross domestic product (30.3%) was more than double the share of the secondary sector (14.8%). The economic structure that independent India inherited from the British had an abnormally big services sector, even a low level of development. A very large civil bureaucracy and defense force was mainly responsible for that. So the conclusion about services sector being the fastest growing sector since independence is not supported by data, and not even needed, to explain the emergence of services sector as the largest sector. It is clearly confirmed by results shown in table 4 that GDP share of the industrial sector grew faster than that of the services sector for the first 50 years in the post independence period (1950-51 to 1996-97). The analysis of growth rates given table also reveals, that over the last decade the growth of services sector share has been stagnant at 1.1% (in the last two sub periods GDP share growth rate is equal) which is definitely a point of concern.

## 5. CONCLUSIONS

The main conclusions of the empirical exercise presented in this paper are now encapsulated. The services sector emerged as the largest sector, in terms of GDP share, of the Indian economy by 1986-87; but its relative weight in GDP was still less than 50 percent. The 50 percent mark was

crossed only recently somewhere in the beginning of the this century. The vaguely held impression that services sector has been the fastest growing sector of the economy since independence, however, is not supported by facts. The results presented in this paper clearly show that it was the secondary sector that has shown the fastest growth over the 1950-51 to 1996-97 period. The growth rate of GDP share of secondary sector was higher than that of the services sector, in various segments of this 46 year period. So it can be safely concluded that the emergence of services sector as the largest sector of the economy in mid 1980's was due to its much bigger initial size in the early 1950's (compared to the secondary sector), and not because of its faster growth compared to secondary sector. This seems to also explain to some extent the disproportionality in the share of services sector in GDP vis-a-vis its share in employment which lags much behind. The growth in the services sector share in GDP took over the secondary sector only after mid nineties that is in the economic reform regime. But in the last decade this growth in its GDP share has been almost stagnant. So another important conclusion that emerged was that the liberalization and economic reforms in early nineties were the main catalyst in the growth of GDP share of services sector. These findings hint at some serious policy implications. The popular belief that hails services sector as the new engine of growth needs to be taken with a pinch of salt. The constancy in growth of GDP share of services sector over the last decade should be ringing alarm bells and suggest at tapering off the gains of liberalization. The policy makers need to focus more on the growth of this sector rather than its relative large size. The extensive growth of this sector should be a priority for a labor abundant country like India as this would lead to larger spillover effects in employment sector. Also though the industrial sector has definitely slowed down but it is still growing neck to neck with services sector, by providing better and investing climate the government can very easily push this sector to contribute much more to the economy.

## REFERENCES

1. Bhattacharya, BB. and Mitra Arup, "Industry Agriculture growth rates: Widening Disparity," *Economic and political Weekly*, Aug 26, 1989.
2. Datta, Madhusudan, "Tertiary sector and Net Material Product; Indian Economy: 1950-51 to 1983-84" *Economic and Political weekly*, Sept 23, 1989.
3. Gujarati, D. N., *Basic Econometrics*, McGraw Hill Inc, New York, 1995
4. Kuznets, Simon, "Economic Growth and the Contribution of Agriculture; Notes on Measurement; in *International Journal of Agrarian Affairs*, Vol 1, April 1961.
5. Nagraj, R., "Excess growth of Tertiary sector". *Economic and Political weekly*, Feb 2, 1991.