

## Understanding Sectoral Economic Growth in India: The Potential for Services

Kaliappa Kalirajan\*  
Crawford School of Public Policy  
The Australian National University  
*E-mail: Kaliappa.kalirajan@anu.edu.au*

Kanhaiya Singh  
National Council of Applied Economic  
Research  
New Delhi  
*E-mail: ksingh@ncaer.org*

**Abstract:** This study reveals that India's sectoral growth pattern differs from the conventional Petty-Clark's law in the sense that states with comparative disadvantage in agriculture appear to grow faster in manufacturing for survival and the services sector has been dominating even before sustaining the growth of the industrial sector in India. Therefore, India's growth strategies need to be based on its own specific characteristics and comparative advantage rather than simply following the 'flying geese' type of models. The global financial crisis has created an opportunity for India to move toward different ways of sustaining the services sector growth. Among other subsectors in services, retail 'service-led' growth, IT-Business Product Outsourcing, and trade in environmental goods and services (EGS) provide avenues to achieve the objective of sustained inclusive growth. Nevertheless, in order to provide sustained employment to several million people, India needs to maintain at least the existing momentum in labour intensive manufacturing, which is also causally linked with the services sector.

**Keywords:** environmental goods and services, global financial crisis, India, sectoral economic growth, services sector

**JEL Classifications:** L86, O53, R11

### 1. Preamble

One of the lessons countries in Asia learnt from the present global financial crisis is to look beyond the US for their export growth, which may have implications for changes in the composition of commodities produced and traded. Why is it so? It is a known fact that the US has been the main consumer of exports by countries around the globe for decades. For example, before the crisis, US private consumption, on average, was estimated to be around 18 per cent of

world output. Now, due to the global financial crisis, that consumption level has started to slide down steadily, but slowly mainly because the number of households investing in capital markets has increased in recent times. Giavazzi (2009) argues that US private consumption was estimated to be about US\$10 trillion in 2008, about 16 per cent of world output, while the estimates for Asian consumption stood at less than US\$5 trillion. Thus, the reduction in consumption by US consumers due to the sub-prime crisis has led to a spreading of the financial crisis globally. Giavazzi cites the study of a Johns Hopkins University economist, Christopher Carroll, who predicted that US households, affected by the recession, will improve their savings to about 4 per cent of their disposable income. With the assumption that disposable income is about 70 per cent of gross domestic product, a 4 per cent increase in the household savings rate would translate into a fall of 3 per cent of gross domestic product (GDP) in household consumption, which is about US\$0.4 trillion in 2008. Then, the crucial question for policymakers in Asia is: How will Asia compensate for a reduction in global demand as large as 3 per cent of US GDP?

To offset export losses that emanated from the global financial crisis, one strategy recently argued by the President of the Asian Development Bank (ADB) Mr. Haruhiko Kuroda at the Second Global Review of Aid for Trade in Geneva, Switzerland on 6 July 2009, is to rebalance growth toward domestic and regional demand. Also, the potential for increasing Asia's consumption from its present level of US\$5 trillion is high due to the growing urbanisation and per capita income levels particularly in China and India. Drawing on the Keynesian thesis, many governments in Asia have turned to fiscal stimulus packages in order to increase domestic demand. For example, China announced Asia's largest stimulus package of US\$585 billion and this has shown positive impacts on China's GDP growth in subsequent years. Also, many developing countries such as China, India, and Indonesia, have eased the tax burdens for exporters. Thus, there appears to be a change in the pattern of trade in terms of emphasis, from international to regional and domestic markets. As a consequence, with the assumption that the US demand may not recover to its 'normal' level soon, there will be a change in the pattern of trade due to changes in demand emanating from countries with levels of income different to the US. Such changes in global consumption will necessarily require changes in the composition of sectoral growth. For example, as Kawai (2009) has argued, East Asia's manufacturing sectors would undergo structural changes because exports, such as sophisticated high-end electronics and machinery would decline dramatically, while its agricultural and services sectors are likely to gain from the expanded domestic and regional demand.

Which components of agricultural and services sectors will be more in demand domestically and regionally? Given the fact that total private

consumption in Asia stood at below US\$5 billion in 2008, it is rational to expect that retail trade would be one important expanding component of the services sector, which has links with agriculture and manufacturing too. Given the technological and environmental structures of Asian economies, there will be greater demand for information technology business processing services and environmental protection services. For example, the UK Joint Environmental Markets Unit has said that within the Asian region, Indonesia, Malaysia, the Philippines and Thailand are major consumers of environmental goods and services and their demand primarily concerns the solid-waste handling and disposal services sector, and filtration and purification equipment for water and wastewater. In this context some important questions are: (a) whether India will be able to meet the increased domestic and regional demand emanating from these services sectors through its own sectoral changes, and (b) whether the potential for growth in India's agricultural and services sectors is significant. However in this paper, the analysis is restricted to examining the growth potential in India's services sector, which is the fastest growing sector in India and also not affected much by the recent global downturn.

In order to gauge growth potential in the services sector, it becomes necessary first to understand the distributional pattern and determinants of India's gross domestic product across sectors in different states in recent times, which is discussed in the second section. The third section examines potential for growth in the retail sector, which is an important component of the services sector in India. Section four discusses growth potential in information technology, business processing and the environmental goods and services trade of the services sector. A final section presents the paper's overall conclusions.

## **2. India's Growth Pattern across States**

India is currently the fourth largest economy in the world in terms of real GDP and has sustained a high growth scenario consistently in the post-reform period from 1992.<sup>1</sup> This growth acceleration has been projected by a number of observers (e.g. Kelkar, 2004; Rodrik and Subramanian, 2004) to continue over the medium term. At the aggregate level, there has been gradual investment in physical and social infrastructure over the years leading to better performance in terms of both physical output and also human capital development indicators. While improvements have been conspicuous in terms of India's own pre-reform performance (but not with respect to its giant neighbour China's performance), the post-reform improvements have led to expectations that India will be able to deliver higher average standards of living to the rising population.

Such expectations prevail in all states, which have created more or less similar economic policy environments throughout India. Nevertheless, the implementation of policies differed across states due to the differences in their

institutional and infrastructural rigidities. Besley and Burgess (2004) examined the impact of economic reform policies on agricultural and manufacturing growth. They found that states that reformed their labour laws in favour of their labour force experienced lower productivity growth, employment, and investment in the formal manufacturing sector. With respect to agriculture, states that reformed land laws to encourage redistribution of land to landless labourers and amalgamation of farm lands for better technology adoption experienced higher productivity growth and income. Kochhar *et al.* (2006) argued that states with institutional and infrastructural bottlenecks experienced lower GDP and industrial growth. These studies certainly suggest a strong link between state-level economic policies and sectoral economic growth. The sectoral analysis followed in this paper examines whether there are additional factors impacting on growth over and above the economic policy environment. Thus, the analysis in this paper has potential to supplement the existing economic policy environment across states.

Table 1 reveals that per capita GDP at the national level amounted to less than US\$700 in 2006, while between 2002 and 2006 the per capita income growth was 5.9 per cent (ADB, 2007). GDP and per capita income at the provincial or state level showed large variations across states. Per capita state domestic product (GSDP) was as low as US\$200 for Bihar, while it was as high as US\$1,793 for Goa in 2006. However, such comparisons may not be meaningful due to the existing large variations in population between Bihar and Goa. Nevertheless, when Bihar with a population of 90 million is compared with Andhra Pradesh with a population of 80 million in terms of per capita GSDP, it becomes clear that not all states have been performing uniformly in terms of economic growth.

There is a large literature concerning overall economic growth and sectoral growth across states in India (e.g. Bhattacharya and Mitra, 1990; Ahluwalia, 2002; Shetty, 2003; Bhattacharya and Sakhivel, 2004). It is not our intention to provide a complete review of the literature on sectoral and regional growth in India. Nevertheless, a brief review of recent literature relevant to the present study is given here. Generally, most of the studies have restricted their analyses to 14 revenue states, though there are 28 states and 7 Union Territories in India. Some of these studies have divided the states into: 'lagging' (Bihar, Madhya Pradesh, Orissa, Rajasthan, and Uttar Pradesh), which are popularly known as 'BIMORU' (sickness in Hindi) states; 'intermediate' (Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and West Bengal) states; and 'leading' (Gujarat, Haryana, Maharashtra, and Punjab) states based on their per capita GSDP growth. Nevertheless, Bihar and Rajasthan have been showing remarkable economic progress in recent times, while Haryana and Punjab have been slacking off.

Table 1: Size and Income of India's States and Union Territories (2005-06)

No.	State/UT	Population million	GSDP US\$ billion	Per Capita GSDP US\$
1	Andhra Pradesh	80.4	53.32	663
2	Arunachal Pradesh	1.2	0.66	567
3	Assam	28.5	13.00	456
4	Bihar	90.2	18.11	201
5	Jharkhand	29.1	14.06	483
6	Goa	1.6	2.80	1793
7	Gujarat	54.6	49.65	909
8	Haryana	23.1	24.03	1038
9	Himachal Pradesh	6.6	5.75	869
10	Jammu & Kashmir	10.9	5.99	551
11	Karnataka	56.0	37.94	678
12	Kerala	33.4	26.88	804
13	Madhya Pradesh	65.9	26.28	399
14	Chattisgarh	22.7	11.73	517
15	Maharashtra	104.2	98.95	950
16	Manipur	2.5	1.29	512
17	Meghalaya	2.5	1.43	581
18	Mizoram	1.0	0.61	610
19	Nagaland	2.5	1.28	514
20	Orissa	38.8	17.74	457
21	Punjab	26.5	24.79	936
22	Rajasthan	61.8	28.06	454
23	Sikkim	0.6	0.41	704
24	Tamil Nadu	64.9	50.49	778
25	Tripura	3.4	2.12	626
26	Uttar Pradesh	181.9	63.19	347
27	Uttaranchal	9.2	5.91	645
28	West Bengal	84.8	53.02	625
	All India	1116.1	739.93	663

Source: Kalirajan, Bhide, and Singh (2009).

Ahluwalia (2002) has argued that the growth rates of per capita GSDP in the 1990s in Haryana and Punjab were not only lower than in the 1980s, but

also indeed fell below the national average. However, Ahluwalia did not offer any specific explanations for their poor growth performance. Bhalla and Singh (2009) provided possible reasons for the poor performance of the northwestern states of Haryana and Punjab, which are predominantly agriculture based. They argued that the excessive use of inputs, decreasing input-use efficiency and lack of scientific research on farming have adversely affected profitability and also agricultural resource bases such as water table and soil quality.

Bhattacharya and Sakthivel (2004) have discussed various reasons for the differential sectoral performances across states. In Gujarat, Maharashtra, and Tamil Nadu, which are the leading industrial states, the share of the primary sector in GSDP declined more compared to other states by the end of the 1990s. Nevertheless, the reasons for such reduction in the share of the primary sector in GSDP are not the same for these three states. Reduction in the primary sector GSDP of Gujarat (30 percentage points) was partly on account of faster growth in industry and the tertiary sectors and partly on account of negative growth of the primary sector in the 1980s. On the other hand, in Maharashtra and Tamil Nadu, there was faster growth mostly in the tertiary sectors with a moderate reduction (10 percentage points) in the primary sector GSDP. Therefore, the industry and tertiary sectors individually had been important sources of economic growth in certain states.

In terms of a theoretical explanation for such sectoral changes, the Petty-Clark's law suggests that as a country's economy develops, the proportion of GDP generated from the primary sector declines and the proportion of GDP generated from the secondary sector increases first. After the industrial sector gathers momentum, the secondary sector dominates the economy in contributing to GDP. When the economy matures in terms of industrial development, then the contribution of the tertiary sector to GDP becomes the number one source superseding both the primary and secondary sectors. Such a theoretically predicted growth pattern can be seen from the experiences of East Asia including China. As argued by Bhattacharya and Mitra (1990), however, in India at the aggregate level, and also at the regional level, the tertiary sector became the largest sector even before the secondary sector dominated the economy. Thus, the Indian experience seems to provide an alternate paradigm of development for developing countries. Such a characteristic leads us to the following testable hypotheses that (i) comparative disadvantage in agriculture stimulates growth of the manufacturing sector for survival; and (ii) the tertiary sector's growth does not depend on either the agricultural or industrial sector's growth. Thus, it is interesting to understand those factors that contribute to reducing or to enhancing disparities in growth across states in India.

### 2.1. Explaining the Growth Differential across States

In 2006, the services, industry, and agricultural sectors contributed 52 per cent, 28 per cent, and 20 per cent to India's overall GDP respectively. However, it can be inferred from Table 1 that the contribution of these major sectors to GDP at state level is not uniform. From the policy perspective, one method of explaining growth differentials across states is first to identify the sources of growth and then to *a priori* identify variables that have a theoretical basis for causing variations in those sources of growth.

One way of classifying sources of growth at the aggregative level is to examine the contribution of agricultural, industrial, and services sectors to overall economic growth. Several economists have advocated an agriculture-first strategy based on the confidence that agriculture has the capacity for technological dynamism (e.g. Schultz, 1978; Oshima, 1993). According to Schultz (1978: 4), "farmers the world over, in dealing with costs, revenues and risks, are calculating economic agents. Within their small individual allocative domain they are fine-tuning entrepreneurs, turning so subtly that many experts fail to see how efficient they are". If this vision of farmers is correct, not only could agriculture supply wage goods and inputs but also, through technological modernisation, rising productivity, incomes and rural prosperity, the sector will stimulate growth in industry, particularly in manufacturing. For its part, industry can not only supply agriculture with modern production inputs, but also produce consumer goods to satisfy expanding consumer horizons. This perception of the intersectoral relation amounts to a dynamic two-way relationship between agriculture and industry.

Support for this approach is drawn from recent experience in East Asia, particularly post-war Japan and Taiwan and the recent post-1978 reform experience in China. Does this 'growth multiplier effect' hold in the case of India? Applying causality tests, earlier studies have shown that such growth effects between agriculture and industry do not seem to be present uniformly across states (Kalirajan and Sankar, 2003). In the absence of such reinforcing growth effects between agriculture and industry, has the services sector growth been an important source of overall growth across states?

Two interesting issues to be explored in the context of examining India's ability to face changing trade patterns due to the present global financial crisis are: (i) whether a productive agricultural sector is a prerequisite for growth in the manufacturing sector, or whether comparative disadvantage in agriculture stimulates growth in the manufacturing sector for survival? and (ii) whether productive agricultural and manufacturing sectors are prerequisites for growth in the services sector?

As indicated above, one key requirement for examining such questions is to *a priori* identify variables that have theoretical bases for causing growth.

Then it is logical to examine whether variations in such variables have resulted in significantly different rates of economic growth across states. In the case of cross-country analysis a number of such variables have been identified in the literature, but in the case of states of the same country choices are rather limited.

Drawing on Barro and Sala-i-Martin (1995), the first set of variables found to be important in sectoral growth processes across states is the structure of each state economy that existed in some initial periods. For example, states with more industrial orientation in the early stage of development are expected to grow faster as industrial growth absorbs more employment and raises the consumption level of other sectors as well. The year 1980-81 is generally considered as a normal period for India without any bottlenecks in either agricultural or industrial production environments and therefore, it is used to proxy the initial endowments and conditions of agricultural and industrial sectors across states.

The second set of variables found to be significant in explaining variations in per capita growth in agriculture, manufacturing and services is related to the social fabric of Indian states.<sup>2</sup> Drawing on Hayami (2001), they are in fact proxy to certain patterns of behaviour of state governments, welfare organisations and cultures of people in general. The variables falling in this category are the initial literacy rate, the degree of urbanisation proxy variable 'METRO', and investment across states. Further, the initial literacy rate of 1980-81 may also be interpreted as a proxy for an initial condition of the services sector.

Drawing on Sachs *et al.* (2002), another set of variables found to be significant in explaining variation in sectoral growth includes physical infrastructure, such as big commercial centres and the presence of coastal areas. States having proximity to metropolitan cities or large contiguous urban formations are expected to have big commercial centres. The presence of coastal areas represents the varying importance of physical connectivity across sectors.<sup>3</sup>

Thus, variables with potential for testing the above hypotheses include initial conditions of agricultural share and manufacturing share, literacy rate, investment, infrastructure development representing metro cities, and coastal region. Theoretically acceptable reduced form models of agricultural growth, manufacturing growth, and services growth for the cross-section of 28 Indian states are given as follows:

$$AGR\_GSDP = \alpha_0 + \alpha_1 AGR8081 + \alpha_2 MFG8081 + \alpha_3 LIT8081 + \alpha_4 INVK + \alpha_5 COAST + \alpha_6 Metro + u_1 \quad (1)$$

$$MFG\_GSDP = \alpha_0 + \alpha_1 AGR8081 + \alpha_2 MFG8081 + \alpha_3 LIT8081 + \alpha_4 INVK + \alpha_5 COAST + \alpha_6 Metro + u_2 \quad (2)$$

$$SER\_GSDP = \alpha_0 + \alpha_1 AGR8081 + \alpha_2 MFG8081 + \alpha_3 LIT8081 + \alpha_4 INVK + \alpha_5 COAST + \alpha_6 Metro + u_3 \quad (3)$$



where:

AGR\_GSDP = per capita growth in agricultural real gross state domestic product;

MFG\_GSDP = per capita growth in manufacturing real gross state domestic product;

SER\_GSDP = per capita growth in services real gross state domestic product;

AGR8081 = initial agricultural condition, which is 1980-81 share of agriculture sector in GSDP;

MFG8081 = initial manufacturing condition, which is 1980-81 share of manufacturing sector in GSDP (all taken in fractions);

LIT8081 = literacy rate in 1980-81 as an initial condition variable;

COAST = dummy variable taking the value of 1 for the presence of coastal area and zero otherwise;

INVK = investment as a ratio of GSDP; and

Metro is a proxy variable for urbanisation and it is a dummy variable having value 1 for states having proximity to metropolitan cities or large contiguous urban formations.

The variables  $u_1$ ,  $u_2$ , and  $u_3$  are the 'normal' error variables.

Unlike earlier studies on sectoral growth in India, this study uses data from 28 Indian states. The above models were estimated individually by heteroscedasticity corrected ordinary least squares methods using the data averaging over the post-reform period of 2004 to 2006 and the results are presented in Table 2. Averaging the data over three years takes care of the influence of any specific year on the dependent variable.

Relevant variables are presented at 1993-94 constant prices and the data sources are given in Appendix I. The model captures some of the features of economic diversity across states.

The R-bar squares for all equations are significantly large and the residuals are well within the band of two standard errors. Therefore, the model captures most of the variations in per capita growth in real value addition in agriculture, manufacturing, and services across states and can lead to valid conclusions.

Furthermore, the significant negative coefficient of the initial manufacturing condition in the AGR\_GSDP equation implies that states with comparative disadvantage in manufacturing appear to grow faster in agriculture for their survival. Similarly, a negative coefficient of the initial agricultural condition in the MFG\_GSDP equation means that states with comparative disadvantage in agriculture appear to grow faster in manufacturing for survival. These results are in contradiction to the East Asian growth model where agricultural growth has been a pre-requisite to industrial growth. Nevertheless, initial agricultural and manufacturing growth conditions appear to be contributing to services growth,

Table 2: Model Explaining Variations in Economic Structure across States in the Post-reform Periods in India

Variabes	AGRI_GSDP	MFG_GSDP	SER_GSDP
Constant	0.059** (0.025)	0.273** (0.128)	0.142* (0.051)
AGR8081	0.152* (0.034)	-0.106* (0.024)	0.123** (0.061)
MFG8081	-0.157** (0.069)	0.756** (0.356)	0.252** (0.121)
LIT8081	0.162 (0.238)	0.867** (0.414)	0.678* (0.252)
METRO	-0.017 (0.016)	0.026** (0.013)	0.024** (0.012)
INVK	0.038** (0.016)	0.056** (0.027)	0.063** (0.028)
Cst	-0.011 (0.050)	0.052** (0.025)	0.047** (0.022)
R-bar square			
Functional form	0.72	0.78	0.82
CHSQ(1)	0.38 [0.54]	0.29 [0.54]	0.36 [0.54]
Heteroscedasticity	0.12 [0.23]	0.10 [0.23]	0.16 [0.23]
CHQ(1)			

- Notes: 1. Variables have been defined in the text, with reference to equations 1–3 above.  
2. Figure in parantheses below each coefficient estimate, is its standard error.  
3. \* refers to significant at the 1 per cent level  
\*\* refers to significant at the 5 per cent level.  
4. Figures in square brackets are critical values.

Source: Authors' estimation.

though the growth of the manufacturing sector seems to be more important than that of the agricultural. This result in a way confirms the arguments of Bhalla and Singh (2009) that scientific research and extension services on farming have been lacking and as a consequence agricultural resource bases such as water table and soil quality have been deteriorating. The presence of coastal area can stimulate manufacturing growth and services growth due to its capability of serving both domestic and international markets and hence its coefficient is positive in both the MFG\_GSDP and SER\_GSDP equations. The much faster growth in coastal China provides solid evidence for the influence of coastal areas on overall economic growth (Sachs et al., 2002).

With respect to the influence of social fabric on sectoral growth process across states, the interesting result is that states with high initial levels of literacy rate appear to have higher per capita manufacturing and services growth, while such a relationship could not be established in the case of agricultural growth. As expected, investment has positive effect on growth and each percentage point change in investment with respect to AGRI\_GSDP, MFG\_GSDP, and SER\_GSDP leads to an increase in per capita growth by 0.038, 0.056, and 0.063 percentage points respectively. Investment exerts larger impact on services sector growth. It may be noted that there is a large variation in investment intensity (Bhalla and Singh, 2009) across states and union territories. For example, for Pondicherry the intensity is 0.38, Gujarat 0.31, Rajasthan 0.20, MP 0.13, A & N Islands 0.03, and for West Bengal 0.07. Clearly, if states such as MP were to raise their investment levels to that of Gujarat, the per capita growth in agriculture and manufacturing would improve by 1.11 and 1.17 percentage points respectively. However, these effects are partial and conditional on other variables. Just like the coastal areas, the presence of metropolitan cities and large contiguous urban formations has positive effect on the growth of manufacturing and services sectors.

The larger coefficients of investment, literacy rate, urbanisation, and coastal areas for manufacturing and services sectors relative to agriculture, indicate that potential for relatively more growth in the former two sectors is significant. However, it is argued elsewhere that while China has consolidated its position as the leading manufacturing location within a short period, India could not do so. A study by Kalirajan and Bhide (2004) reveals that unlike in the Chinese case, the manufacturing output growth in the post-reform period in India has been inputs driven rather than efficiency or technology driven. The analysis further indicates that on average about 15 per cent output growth can be achieved by improving firms' efficiency through following the best practice techniques without having either to increase any inputs or to improve the existing technology. The responsibility for improving efficiency in the production process appears mostly to lie with strategic decision making at the firm level (Chandra and Sastry, 2002; Kalirajan and Bhide, 2004). In this paper, analysis is restricted to the services sector only.

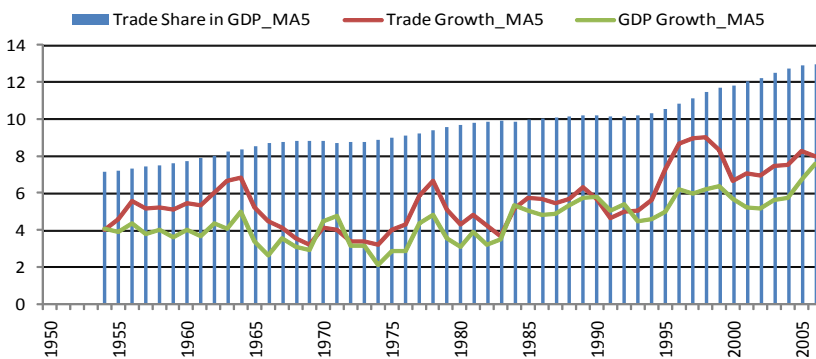
How far potential in the services sector can be realised depends on several factors including infrastructural and institutional inefficiencies, which are called 'behind the border constraints'. In the absence of detailed data, it is difficult to identify the relative importance of such factors. Nevertheless, one can search for signals of realisation in terms of 'consequences' rather than 'causes' by examining the speed of growth of certain important components of services sectors that have the potential to meet the increasing domestic and regional demand. Retail is one major component of the services sector that serves the

domestic market and has strategic links with manufacturing and agriculture too.<sup>4</sup> Next, the ‘information and communication’ and ‘environmental goods and services’ components of the overall services sector, being well developed due to the prevailing better higher education system in India, are well placed to meet increasing regional demand.

### 3. Growth Potential in Retailing to meet Increasing Domestic Demand

India is home to about 18 per cent of world population, which means it has a sizable market for transactions of goods and services. In line with global trends, 75 per cent of new employment has been generated in the services sector. Compared to a 60 per cent increase in aggregate employment during 1996-2006, employment in manufacturing rose by only 20 per cent. Which components of the services sector are fast growing in India? Amongst services sub-sectors, domestic retail trade is the fastest growing, forming about 13 per cent of GDP during the past five years to 2005 (Figure 1). After the information technology boom, growth of the retail sector in India is seen by researchers and policymakers as the next driver of the Indian economy.

Figure 1: Growth in Domestic Retail Trade and its Share in National Income



Note: MA5 refers to five-year moving average.  
Source: Kalirajan and Singh (2009).

In this context, Kearney’s GRDI 2008 ratings find India as a favourable destination for global retail investors after Vietnam, while Retail Apparels Index (Kearney, 2008) puts India at third place after Brazil and China (Table 3). India ranked first for the fifth time in Global Consumer confidence Index (June 2007) conducted by the reputed Nielsen Company which is cited in Kearney (2008).

Table 3: AT Kearney Retail Apparel Index, 2008 (unit of measurement: index)

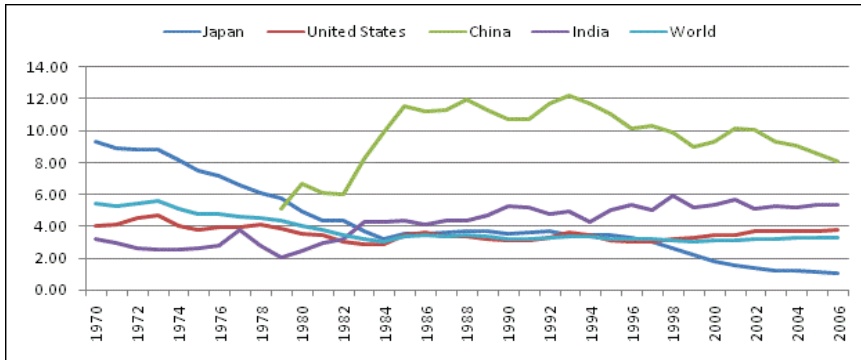
Rank	Country	Absolute Market Size	Growth Prospects	Consumer Affluence	Score
1	Brazil	44.5	33.4	42.1	48.2
2	China	74	22.1	35.7	47
3	India	57.4	37.4	31.1	46.6
4	Turkey	29.4	36.8	58.9	46.2
5	Chile	22.3	46.7	44.2	45.9
6	Romania	21.1	53.8	33.7	45.1
7	Argentina	20.6	43.7	38.8	41.1
8	Thailand	22	24.6	57	40
9	Russia	51.7	21.9	38.7	38.7
10	United Arab Emirates	31.2	41.9	27.9	38.1

Source: Kearney (2008: p.2)

In India the growth of real private consumption has been robust at about six per cent per annum during the last two decades (Figure 2). With all these developments in the real sector, along with a large proportion of population being young and forward looking in terms of changing life style, economic agents see great opportunity in the retail sector’s growth. For example, in order to take advantage of the new emerging trend in consumerism, a few textile manufacturers in Tamil Nadu state have started focusing on the local retail market in the last few months, launching branded products for domestic consumers.

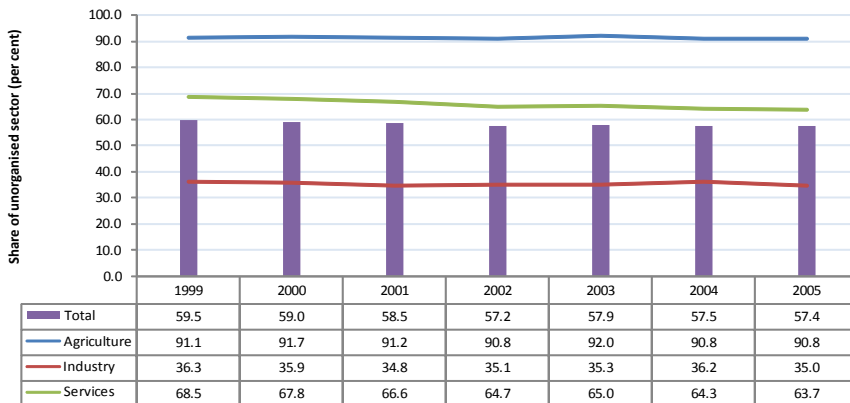
Though India’s retail market is estimated at over \$360 billion, organised retailing’s share in India is very low at around 5 per cent compared to countries like the USA, Thailand and China, to name a few. According to the ratings, this share is expected to grow at a compound annual growth rate of 40 per cent from \$20 billion in 2007 to \$107 billion by 2013. A strong economy, rising wealth levels, rapidly changing life styles and consumer aspirations of an ever growing middle class are some major reasons for the organised retail boom in India. The establishment of departmental stores and supermarkets in big shopping malls, and e-retailing are the outcomes of surging organised retailing in recent times. Recently, India Tourism Corporation launched India’s first rural mall “Chaupal Sagar” in the village of Rafiqganj in Madhya Pradesh state, providing farmers a one stop centre for all their consumption requirements.

Figure 2: 10-Year Moving Average Growth of Real Consumption



Source: Kalirajan and Singh (2009)

Figure 3: Contribution of Unorganised Sector in Indian Economy (%) (Key Sectors)



Source: Kalirajan and Singh (2009)

It is interesting to note in contrast to the information technology sector within the services sector that almost 65 per cent of services sector income is being generated by the informal sector (Figure 3). The National Sample Survey Organisation (NSSO) carried out a sample survey in 1999-2000, which showed that of a total workforce of 397 million only 28 million workers were employed in the organised sector. Thus, about 92 per cent of the Indian workforce was employed in the unorganised sector during that period.

The dominance of the unorganised sector in retailing has two effects – positive and negative – on the economy. First, concerning the positive effect, it

may be noted that it has helped maintain resilience in the growth process of India and provides flexible employment and self-employment to a large segment of the Indian workforce. It has also helped in maintaining order in the macroeconomic environment through quick and silent adjustments by the economic agents in case of external shocks. On the other hand, concerning the negative effect, it may be observed that the unorganised sector generally uses outdated technology and business methods. Nevertheless, the negative effect implies that it is possible to introduce better technology and business methods to adjust to the changing market conditions and to ensure new opportunities for growth. Thus, the “2Ts” – Technology and Transferability – are crucial for sustained growth of the unorganised sector along with the organised sector. What then are some feasible methods of producing such changes in the unorganised retail sector’s business activities? One method can be the integration of unorganised retailing with organised retailing through a subcontracting system with respect to certain specific goods and services, such as is built on community trust and cooperation in East Asia *a la* Hayami (cited in Sonobe and Otsuka, 2006).

#### **4. Growth Potential of Services Sectors to meet Increasing Regional Demand**

The latest report on services by the World Trade Organisation (2009) argues that services are the global economy’s fastest growing sector and that two-thirds of global output comes from services. Just like manufacturing, services also contribute to improvement in productivity in both exporting and importing countries, which has impact on wages and thereby on poverty reduction. For example, many studies have found a significant positive relationship between foreign outsourcing and productivity growth in the US (Amiti and Wei, 2006; Olsen, 2006). South Asian countries’ largest share of their GDP comes from the services sector which grew at an average annual rate of 7.0 per cent in the period 1990-2007, compared to 6.7 per cent in the decade previous. In contrast, the average annual growth of services slowed down from 9.3 per cent in the 1980s to 6.8 per cent in East Asia and the Pacific (Ghani, 2009). It is estimated that the ratio of service trade to service output for developing countries has increased much faster than for developed countries. The implication is that developing countries have been able to concentrate on the production of services that are tradable. For example, a majority of information technology (IT) enabled services in India are export oriented and the global financial crisis has not affected the off-shore market consumption of IT services severely as in the case of merchandise trade (Ghani, 2009).

The Indian IT Industry has gained the reputation of being an important world leader. The availability of world class technical personnel, proficiency in English, cost competitiveness, quality research and training institutes, and

effective reform measures has transformed India into a most sought after destination for companies around the world to outsource their businesses. NASSCOM, which is the chamber of commerce of IT-Business Processing Outsourcing industries in India, has recently reported that the Indian IT sector's contribution to GDP has risen from 1.2 per cent in 1997 to 5.8 per cent in 2008. It is expected that the export turnover from the IT sector would reach US\$80 billion by 2011 and during this period, direct employment is expected to reach nearly 2.23 million, while indirect job creation is estimated to touch 8 million. Several studies have reported that the global financial crisis has not seriously affected the Indian IT industry and that it is expected to be the fastest growing with a compound annual growth rate of 19 per cent in the Asia Pacific region (NASSCOM, 2009a). The banking, financial, services and insurance (BFSI) segment of the IT sector has been the highest spender on technology and accounts for a substantial portion of revenues generated at world-renowned Indian information technologies companies such as Infosys Technologies, Wipro, and Tata Consultancy Services, which have been flourishing.

The NASSCOM report (2009b) is optimistic about the future of India's IT industry growth. It argues that since India currently accounts for just over 4 per cent of worldwide technology related spending and since growth in global sourcing is estimated to be almost four times that of technology related spending, India has a large potential to reap a significant portion of increased global sourcing. Also, India receives its IT services revenues mainly from the US and the BFSI sector, which means India can expand its operations in other major developed and developing countries with appropriate marketing strategies.

As in the case of developing Asia's rural sector, the problem of India's rural sector, where the majority of the poor live, is one of providing productive employment to the unemployed, under-employed as well as seasonally employed labour force. Added to this, there is low productivity of both land and labour in agriculture, which provides livelihood for over 60 per cent of the population, due to various environmental related problems, such as soil erosion and water scarcity. The cumulative impact of all these factors is that rural employment is not adequate by any of time, productivity or income criteria. It should also be noted that as global income increases, the demand for clean environmental goods and services will increase (Jha, V., 2008). An effective way to tackle India's rural problem in the context of increasing global income is to diversify the rural economy through developing production and trade in environmental goods and services (EGS). In urban areas too, production of environmental goods is labour intensive. As it is customary to argue based on the Heckscher-Ohlin theory that developing countries with a relatively abundant supply of low-skilled labour should concentrate on labour-intensive goods production and exports, India can find a niche in the production and export of



EGS. However, empirical studies have asserted that mere relative abundance in low-skilled labour will not guarantee sustained growth of labour-intensive exports (Ninkovic, 2009), if the countries do not have good transportation and telecommunication infrastructure. Thus, labour availability should be complemented by improved physical infrastructure.

For example, with the increasing awareness of climate change, environment protection activities such as carbon sequestration and the Clean Development Mechanism (CDM) create demand for environment-related consultancy services. India does have good potential to export such professional services, and exporting of these can be sustained if demand for them is created in the domestic market also, to gain more experience. Export growth will, nevertheless, to a large extent depend on quality assurance and the removal of possible obstacles to the “mode 4” provision of services in overseas markets (OECD, 2005). Thus, EGS is an important means of promoting the sustainable development goals laid out in the UN Millennium Development Goals and different multilateral environmental agreements, enhancing the mutual supportiveness of trade and environment, which can be seen from paragraph 31(iii) of the Doha Ministerial Declaration (WTO, 2001). An important factor that has a significant bearing on employment and productivity in EGS is technology. It is reported that about 50 per cent of total EGS to be used by 2030 are yet to be created, which emphasises the urgent need for funding and R&D to develop and transfer the technologies to the developing countries (OECD, 2005). This situation provides an opportunity for India to strengthen its research capabilities in the area of EGS.

The value of global environment industry production is estimated at over US\$650 billion and trade in EGS is estimated to be around US\$65 billion only. The three dominant market players have been the US with a share of 37 per cent, Western Europe with a share of 30 per cent and Japan with a share of 18 per cent (Jha, V., 2008). Though other Asian countries are not big players in the EGS market, the UK Joint Environmental Markets Unit (UKJEMU) has estimated that the market share of developing countries will be about 20 per cent by 2010. The UKJEMU argues that there will be increasing demand from countries like Indonesia, Malaysia, the Philippines, and Thailand for services concerning solid-waste handling and disposal, and also equipment for filtration and purification of water. In 2006, China and The Republic of Korea were two Asian countries along with Japan among the top ten exports of the WTO’s “153” list, which includes all goods and services related to the environment. It is worth noting that China has become one of the leading exporters in almost all categories of the “153” list. China also features along with Japan as one of the top importers of the “153” list (World Bank, 2007). Thus, China has been showing a keen interest in promoting trade in EGS. India with its proven research capabilities at universities and research institutions has the potential to participate actively and effectively in EGS trade.

However, there are a few issues that need to be sorted out at the WTO, which may be the reason for non-active participation by other developing countries in EGS trade. For example, there is no clear distinction between goods intended solely for environmental uses and goods intended for both environmental and non-environmental uses. This raises concerns among developing countries about dumping of a broad range of industrial goods on them in the name of environmental goods, by the developed countries, which may have implications for their domestic industries and employment. This issue needs to be sorted out quickly. Though tariff on trade in EGS is low in many countries, the bound rates are high in South American countries. The issue of defining which goods are EGS might also lead to unnecessary non-tariff barriers.

## **5. Conclusions**

This study reveals that India's growth pattern differs from the conventional East Asian growth model in the sense that states with comparative disadvantage in agriculture appear to grow faster in manufacturing for survival and the services sector has been dominating even before sustaining the growth of the industrial sector in India. Therefore, India's growth strategies need to be based on its own specific characteristics and comparative advantage rather than simply following the 'flying geese' type of models. Though India has not proved its successful performance in merchandise exports, as argued by Rajan (2006), it has proved that it could compete in the services trade sector despite the poor infrastructure in high-value-added and high-skill industries. For example, during the 1990s, India's service sector grew at an average annual rate of 9 per cent, contributing to nearly 60 per cent of the overall growth rate of the economy. Further, India's exports of services grew annually on average at 17 per cent per year in the 1990s, which is about two and a half times faster than the domestically focused part of the services sector (Hoekman, 2004). Thus, it is argued that India should nurture this comparative advantage effectively by relaxing 'behind the border constraints' such as over regulation of the higher education system. Nevertheless, in order to provide sustained employment to several million people, India needs to maintain at least the existing momentum in labour intensive manufacturing, which is also causally linked with the services sector.

The global financial crisis has created an opportunity for India to move toward different ways of sustaining its services sector growth. Among other subsectors in services, retail 'service-led' growth, IT-Business Product Outsourcing, and trade in environmental goods and services (EGS) provide avenues to achieving the objective of sustained inclusive growth because their environmental impacts would be less dramatic, and their impact on the pace of poverty reduction would be significant. India has been showing signs of good

performance in the above three areas and it needs to keep this momentum going steadily, which can contribute significantly to increasing shares of the services sector and trade in EGS in GDP. However, such a momentum is dependent on effectively eliminating the ‘behind the border constraints’ in India and on the effective cooperation between developing and developed countries. These factors illustrate the importance of the “2Ts” – Technology and Transferability – in sustaining the growth process of not only India, but of all developing countries. Multinational organisations such as the World Bank, the Asian Development Bank and the World Trade Organisation, need to play active roles in strengthening and sustaining the cooperation between developing and developed countries to improve the operation of the “2Ts”.

### Notes:

- \* Corresponding author. Comments and suggestions by an anonymous referee of this Journal on an earlier version are acknowledged with thanks.
- <sup>1</sup> The growth performance due to economic liberalisation in India at the aggregate national level is well known and has been documented adequately in the literature. For a comprehensive review, see Jha, R. (2008).
- <sup>2</sup> It must be made clear that such variables, while explaining differences in growth patterns across states, may not be construed to have causal relationships with growth.
- <sup>3</sup> We thank the referee for pointing out this aspect of the coastal regions.
- <sup>4</sup> Retail does not include transactions between the manufacturer and corporate, government and other wholesale purchasers. In terms of the supply chain concept, retail refers to the last link, that between the producer and the consumer.

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### Appendix 1: Variable Description and Data Sources

Variable	Description	Data Sources
INDZ80-81	Shares of industry in GSDP during 1980-81	Authors' calculations using data from Departments of economics and statistics of various states and the Central Statistical Organisation (various years).
AGRZ8081	Shares of agriculture in GSDP during 1980-81	Authors' calculations using data from Departments of economics and statistics of various states and the Central Statistical Organisation (various years).
INDG	Growth of industrial sector (fraction)	Authors' calculations using data from Departments of economics and statistics of various states and the Central Statistical Organisation (various years).
AGRG	Growth of agricultural sector (fraction)	Authors' calculations using data from Departments of economics and statistics of various states and the Central Statistical Organisation (various years).
SERG	Growth of services sector (fraction)	Authors' calculations using data from Departments of economics and statistics of various states and the Central Statistical Organisation (various years).
DLIT	Literacy rate (fraction)	Basic data Census 1991.
METRO	Dummy for states having proximity to metropolitan cities or large contiguous urban formations	AP, DL, GO, GU, HY, KT, MH, TN, UP, WB.
INVK	Investment as a ratio of GSDP	Reserve Bank of India.
Coast	Presence of coastal area	Central Statistical Organisation.