Chapter-II: Review of Literature
Chapter II  Review of Literature

In this chapter, we have analyzed research papers published during 1988 to 2010. Most of the research papers included in this chapter belong to the period 2001 to 2010. The basic objectives to analyze these research papers are to find out the objective methodology, period of the study, conclusions drawn and factors affecting the growth of Gross State Domestic Product and National Income.

Some important contributors in National Income analysis: -

A seminal contribution to the field of National Income and product accounts made by Simon Kuznets set the trend using national income aggregates to measure the direction of growth of economies. He was honored with Nobel Prize in 1971 in recognition of his empirical interpretation of economic growth. Another important contribution in this field is that of Richard Stone (1913-1991). He prepared a statistical profile of the British economy and also headed a UN's Project to develop standard national income accounting model.

Simon Kuznets won the 1971 Nobel Memorial Prize in Economic Sciences "for his empirically founded interpretation of economic growth which has led to new and deepened insight into the economic and social structure and process of development".
In India, the National Income Committee was constituted in the year 1949-50 under the chairmanship of P.C. Mahalonobis and D.R Gadgil and V.K.R.V. Rao were the members. The committee had suggested various methods to estimate national income. The most systematic work was that of V.K.R.V. Rao in his book which formed the basis of national income estimation in the post-independence period.\(^{16}\)

Many contributors have studied the growth of the economy for the two periods, the pre-reformed period and the post-reform periods of the Indian Economy.


The author in the study entitled “A tale of Two States: Maharashtra and West Bengal” had compared the economy of the two states and had thrown light on the reasons for the decline of West Bengal relative to Maharashtra. The author has calculated the per capita income for both the states and has applied a “wedge”

\(^{16}\) V. K. R. V. Rao was a prominent Indian economist, politician, professor and educator. Notable among his works are: Taxation of Income in India (1931), An essay on India’s National Income -1925-29 – (1936); The National Income of British India (1940); India and International Currency Plans (1945); Post-War Rupee (1948); Problem of Integration (1979); India’s National Income 1950-80 (1983) Food, Nutrition and Poverty (1982); Indian socialism: Retrospect and Prospect (1982), etc. He was awarded Padma Bhushan by the Government of India in 1974.
Methodology based on the first order condition of a multi sector neoclassical growth model to ascertain the output and factor market sources of the divergent economic performance. The study period is 1960-1995. The author comes to conclusion that the productivity growth in both the manufacturing and services sector was considerably less in West Bengal as compared to Maharashtra, and also the labor allocation wedges involving manufacturing changes substantially within and between the two states.


In this article “Growth and Poverty: Policy Implications for Lagging States”, the author shows that the inter-state differences in poverty rates can be largely explained by difference in the per capita gross domestic product, agricultural growth and the share of the bottom 40% of the population in consumption.

The study period is from 1993-94 to 2004-05. The study is based on secondary data, compound annual GSDP growth is calculated by mean standard deviation and covariance and correlation is calculated for the different sectors and sub sectors of GSDP growth. The author further concludes that to eliminate poverty, economic policy therefore has to accelerate growth, focus programs on agriculture and rural development in the poor states and target subsidies at the bottom 40%. The most
critical areas distinguishing state growth performance have been modern
(registered) manufacturing and commerce as concluded by the author.

3) Abhijit Das, Rashami Banga, Dinesh Kumar, (2010)

The research paper entitled “Global Economic Crisis: Implosions and
restructuring of services sector in India” focuses on the service sector of India
which contributes around 57% in the GDP. The main objective of this paper is to
analyze the implication of global crisis in India’s service sector and the changing
composition of this structure trend in different sub sector of services have been
examined with special reference to quarterly changes during the global crisis. The
authors have also analyzed the real GDP of India. The growth rates of all three
sectors, changing sectoral composition of India and its service sector for the period
1991-2009. The paper attempts to analyze the services led growth of India in the
face of falling external demand. It examines the contribution of disaggregate
services to total GDP and decomposes growth of GDP with respect to the
disaggregated sector of the economy. It was found that most of the sectors that have
high shares in GDP are not dependent on external demand. Three sub sectors have
been identified for sustaining the monument of growth of Indian economy. There are
retail/wholesale trade, software services and banking services. All these have high
share in service sector and there by accelerate the tertiary sector growth, higher productivity in services can lead to a sectoral linked productivity viral.


The author in the paper entitled “Regional growth and disparity in India: A comparison of pre and post reforms Decades” attempts to probe into this by analyzing growth rates of aggregates and sectoral domestic products of major states in the pre (1980’s) and post reforms (1990’s) decades. The result indicates that while the growth rate of gross domestic product has improved only marginally in the post reform decade, the regional disparity in the state domestic product has widen much more drastically. Industrial states are growing much faster than the backward states, and there is no evidence of convergence of growth rates among states. The result concluded that there is now an inverse relationship between population growth and SDP growth. The findings also tell that the inverse relationship is stronger for the per capita income growth among states. The conclusion of the analysis shows that the growth performances and structural changes in domestic product of Indian states in the last two decades reveals that the development process has been uneven across the states and the tertiary sector has become the engine of growth in the last two decades.


This paper entitled “Sources of Growth in the Indian Economy” empirically examines India's economic growth experience during 1960-2004, focusing on the post 1973 acceleration. Careful attention is paid to data quality. The analysis focuses on two unusual dimensions of India's experience -- the concentration of growth in services production, and the modest levels of human and physical capital accumulation. In this paper, we build on a growth accounting framework to empirically examine these dimensions of India’s recent growth. Where has the growth been concentrated, as among agriculture, industry, and the service-producing sectors? Sources of Growth in the Indian Economy analysis focuses on the period's de-lineated by the survey benchmark years: 1960, 1973, 1983, 1993, 1999 and 2004 due to concerns about India’s annual output data. We have argued that researchers should have a reasonable degree of confidence in the GDP estimates for benchmark years. Considerable attention has been focused on the role of services -- especially high-tech services -- as the source of India’s growth. Our growth accounts attribute 1.4 percentage points of the 3.8 percent per annum GDP growth during 1980-2004 to growth in total services output (versus 0.7 percentage points each to agriculture and industry and 1 percent to reallocation, respectively). However, the very strong gains in service sector TFP are quite puzzling. One might
expect such rapid productivity growth in sub-sectors such as finance and business services, but these sectors remain small – just 17 percent of total services output in 2004. In fact, the output growth is quite widely dispersed across service sub-sectors. Successful implementation of this growth strategy should not be expected to generate rapid TFP growth within the growing sectors. Expansion of both industry and services will draw workers out of agriculture. This will generate gains in aggregate TFP from the reallocation of labor to more productivity activities and from reduced labor redundancy in agriculture. Thus, reforms should be directed towards making it easier to expand domestic production, and a creating a more attractive location for foreign producers. We see the prospects for sustaining this broad-based type of high growth in India as strong.


The purpose of the paper entitled “Accounting for growth: comparing China and India” examined sources of economic growth in the two countries and to compare and contrast their experiences over the past 25 years. In many respects, China and India seem similar. Both are geographically large countries with enormous populations that remain very poor. In this paper, we investigate the patterns of economic growth for China and India by constructing a set of growth accounts for each that uncover the supply side sources of output change. In addition
to aggregate output, the accounts are constructed for the three major economic sectors: primary (agriculture, forestry and fisheries), industry (manufacturing, mining, construction, and utilities), and services. This level of detail enables us to assess the magnitude of efficiency gains associated with the movement of workers out of agriculture, where they are frequently under-employed, into higher productivity jobs in industry and services. The conclusion is that Key differences between the two economies also stand out, with China’s concentration of growth in industry while India’s growth has been strongest in various service-producing industries; but China’s growth is remarkably broad across agriculture, industry and services. Overall, the growth of services in China actually exceeds that of India. Thus, juxtaposing the experiences of China and India offers a valuable perspective on each country’s individual performance.


The authors in the paper entitled “GDP forecast and analysis report” have considered three Indian states viz. Andhra Pradesh, Karnataka, Uttar Pradesh for this gross domestic product forecast and the analysis of the gross domestic product. The study is for the period 2001-02 to 2005-06. The data has been collected from Central Statistical Organization. The authors have calculated the growth rate of the GSDP for all the three states. Against the all India average rate of 5.7 registering
6.13. A relative sectoral assessment of the state economy shows that the only sector that appears to have recorded a wild rise in the growth rate in the primary sector, the industrial sector of the secondary sector has seen its growth rate dropping down from 8.47 in 1980’s to a dismal rate of 4.57 in the 1990’s. Tertiary sector only showed a growth rate of 3.63% in 1990’s. In the secondary and tertiary sector, the state has carved out a formidable position in industrial and services sector. However, the analysis shows that the drawback in Gujarat model is its negligible performance in agricultural sector and regional imbalance in development. The tribal region of north and south region of Gujarat are lagging behind in terms of economical and industrial development. The state has maintained its 4th rank in per capita NSDP, with primary sector lagging behind, the rapid industrialization has affected environment. Only an inclusive model can make economic growth and development sustainable.


The paper entitling “Productivity Increase and Changing Sectoral Composition: Contribution to Economic Growth in India” analyses how productivity increase and changing sectoral composition in India have contributed to an accelerated economic growth in the post- 1980 period. Productivity analysis reveals that a faster total factor productivity growth in the services sector in the post-1980 period has been an
important contributor to accelerated economic growth. Within the services sector, the post-1980 hike in the growth rate of productivity is found to relatively higher in the trade, hotels and restaurants group and the public administration and other community, social and personal services group. Econometric analysis of the impact of different sectors on the rest of the economy brings out that the trade-transport sector and the secondary sector are important determinants of the growth of the economy. Variance decomposition analysis aimed at assessing the inter-sectoral growth linkages indicates that the causality runs from secondary sector to the trade-transport sector rather than in the reverse direction. It is accordingly argued that though there has been a major shift in the composition of GDP towards services and this has contributed to the overall growth in India, it is the secondary sector which is the lead sector in the medium to long run, and the policy focus should therefore be on manufacturing. The study period is 1980 to 2004. The conclusion drawn from the study are Within the tertiary or services sector all the four sub-sectors experienced an increase in the growth rate of labour productivity in the post-1980 period. This was most marked in the case of public administration and other community, social and personal services. It is interesting to note that in this group of services, there was only a modest increase in the growth rate of output, but a marked acceleration in the growth rate of output per worker which possibly resulted from the downsizing of the public sector followed as a part of the deregulation and reform process on the
one hand and on the other pay hikes in the salaries of the central and state
government employees from time to time. As regards the composition of GDP, there
has been a major shift in favour of the tertiary sector and hence, this shift has also
contributed to the overall growth. However, between the secondary and trade-
transport sectors, the former still appears to be the lead sector in the medium to long
run though the share of the trade-transport sector in GDP has increased
considerably over the years contributing substantially to the aggregate growth rate.
Hence, the policy focus has to be on the industrial sector for boosting its growth so
that the aggregate growth of the economy derives its impetus from industrialization.


The author in their article entitling “Understanding Economic Growth in India: A
Prerequisite” follows a recent development in the estimation and testing of multiple
structural breaks in linear models to identify phases of growth in India since 1950.
The noteworthy feature of the methodology is that it allows the data to parameterize
the model, thus yielding results that are immune to the prior beliefs of the
researcher. The resulting estimates reveal that there are two growth regimes in India
since 1950. The author then decomposes by sector the contribution to the change in
the growth rate across these regimes. Finally by a means of simple econometric
model, they test a hypothesis that emerges from their estimation and testing for
structural break in the main sectors of the economy to provide an explanation of the
growth transition in India. In passing the authors consider the bearing of their results
on extant explanations of the same transition.


According to Subhomoy Bhattacharjee in his article entitled “Towards a faster
Growth” talks about growth rate of GDP of India and living standard of people. The
union Budget is an economic policy statement of the government for the year, but
because of the compulsion of electoral policies it assumes the role of the ruling
party’s manifesto. This is the reason why despite having the best possible economic
backdrop of a dizzy growth rate of the GDP, a rising standard of living and a general
sense of optimism, finance Minister P. Chidambaram had to forswear all those
advantages and instead play to the electoral gallery.


P.R. Brahmanand in his article entitling “Constraints on Development Strategy” deals
with the contribution of agriculture in the growth rate of total real income. With 1964-
65 as the base year, over the period 1964-65 to 1971-72 the annual compound rate
of increase in real income turns out to be about 2.9 percent as compared to about
4.1 percent between 1950-51 and 1964-65. As the impact of the green revolution in
wheat has been felt only in the period 1964-65 o 1971-72 there is no reason to expect any further miraculous improvement in the subsequent years so as to boost the natural growth rate of real income. The benefits of the Green Revolution if it spreads to other crops at best may lead to a steady rate of growth for some years of agricultural output at about 2.5 percent to 3 percent per annum. Currently industrial output is rising at only 3 percent per annum. We do not expect therefore the natural growth rate of total real income at above 3 percent in the remaining years of the Fourth Plan and in the Fifth Plan.


In the study entitled “Why India can grow at 7% a year or more: Projections and Reflections” the author had studied about India’s economic performance during the first three decades since independence, the third Five Year Plan was a failure with growth rate of GDP very low and was christened the Hindu rate of growth by Prof. Raj Krishna of The Delhi School of Economics.\(^\text{18}\)

\(^{18}\)‘Hindu rate of growth’ is the tongue-in-cheek expression, coined by the Indian economist, the late Raj Krishna, to capture the frustrations India’s planners faced with growth. No matter what they did, growth seemed, invariably, to revert back to 3.5 per cent per annum, almost as if this magic figure was written in the land’s scriptures. The Possibility of Hinduism having something to do with economic growth was earlier suggested by B. P. R. Vithal.
The term connoted a disappointing but not disastrous outcome, and played to the
circle of the acquiescence that the religion supposedly inspires, because of the great
emphasis on the hereafter since 1980., its economic growth rate has more than
doubled, rising from 1.7% (in per capita terms) in 1950-80 to 3.8% in 1980-2000. In
this paper they have set out an analytical growth perspective to forecast India’s
growth. They draw heavily upon their recent paper to come up with a central growth
forecast which is about 7% per year for output or 5.6 percent for per capita output for
the next 20 years. Findings: Three remarkable features stand out about India’s
economic performance over the last two decades. The first experienced very high
growth of output per capita at 3.8 percent per year surpassed only by china and the
East Asian countries. Indian per capita income growth has therefore been extensive
motored by productivity and hence sustainable in the future, rather than based on
deferred gratification, which runs into the limits imposed by diminishing returns to


The authors in the paper "Beyond GDP" welfare across countries and time" have
proposed a simple summary statistics for a nation’s flow of welfare, measured as a
consumption equivalent and compute. Its level and growth rate for a broad set of
countries. According to author, many economists have noted, GDP is a flawed
measure of economic welfare. A comparison of living standards between different
countries has been done in this paper. The gap per person is an informative
indicator of welfare across a broad range of countries. Conclusion drawn was that
the correlation between welfare index and income per capita is very high. Also,
Living standard in Western Europe is much closer to those in the United States than
it would appear from GDP per capita.


In this study “What determines economic growth?” authors examine the per capita
income growth in the United States and other advanced country in the year 1820-
1991. The study examines the GDP growth of USA and just by examining the GDP
growth over the long run has tended to accelerate. The author has related GDP level
with the economic growth of the countries. The author has analyzed the growth rates
of per capita rear GDP, by country and GDP growth rates of leading technological
countries. The author has studied the GDP growth rate of United Nations. The
author has analyzed the determinant of the economic growth due to which why the
country differs in the GDP growth. The author concludes thee although there are so
many determinants which affect the economic growth of the country but the
technological progress ultimately determines the growth of the GDP.

The paper entitled “Analytics and implementation of services sector growth in Indian economy”. attempts to identify some of the critical issues in India’s services led growth and tests certain hypothesis that are currently in debate, these relates to whether the robust growth of the services sector has added a dimension of stability to India’s GDP growth, whether there has been a growing complimentarily between services and industrial sectors and the economy, whether like other commodity. Producing sectors, the services sectors also experienced ‘jobless’ growth and whether high growth of service sector in India had an inflationary impact on the economy. According to the author, the author had selected period 1980 to 2006 for the study. The study found that the higher growth in services sector has added a dimension of stability to India’s growth process. Unlike other commodity producing sectors, which have either seen a stagnant growth or decline in employment, the author found that the services sector has generated growth or decline in employment; he found that the services sector has generated some employment opportunities. With regard to inflationary impact of services sector expansion, the paper finds that growing service sector share in GDP has co existed with low and stable inflation on account of inflation moderating forces operating, inter-alia through the synergy between the two growth drivers.

The authors in this paper entitled “The economic tragedy of the XXth category: Growth in Africa” document the evolution of per capita GDP for the continent as a whole and for subset of countries south of the Sahara Desert. The paper analyses some of the Central robust determinants of economic growth and project the annual growth rate. Africa would have enjoyed if these kept determinants had taken OECD rather African values. The study period is from 18960-61 to 1999-00. The author has calculated the per capita growth rates over various sub-periods. The conclusion was that the economic growth performance of the African continent has been typically disappointing.


The author in the paper entitled “The pattern of growth in Indonesia after the economic crisis 1997/98: Does the primary sector still need to support economic growth?” aims to examine the pattern of growth in Indonesia, it represents the progress of each of the main sectors in the economy, such as primary, secondary and tertiary sectors from the year 2001 to 2007, particularly focusing on its role to support economic growth. The primary sector which consists mostly of agriculture and mining is always excluded by policy makers because of its decreasing
contribution to the gross domestic product (GDP). The author tries to explain from this paper is the two way correlation, which happens between primary sector growth and GDP growth, it also happens to the secondary sector, also the tertiary sector. Growth has only one way correlation with GDP growth. The author came to a conclusion that the primary sector is definitely still needed to support Indonesian’s economic growth, especially after the economic crisis 1997/98. The primary sector is expected to become a key part of Indonesia’s growth. Story has been proved especially by the author.

18) G. Ramakrishna, (2004)

The present study entitling “Open policies and service sector growth in India: Does service sector growth influence economic growth in India” is an effort to empirically analyze the growth trend in the service sector of India and to verify the sources of such growth. The paper also tried to verify the impact of open policies in service sector growth and also attempt to commence on the sustainability of service sector growth. The study period is 1970-71 to 2002-03. The objective of the study is to verify the structural shift in the growth of service sector of India and its constituent sub sectors due to implementation of open policies, to study the impact of service sector growth on economic growth of India and also to empirically verify the determinants of service sector growth in India and to discuss the possibilities of
sustaining such a growth. The study concluded that the empirically analysis supports the modern view of structural transformation is declare in the share of agriculture and industry and increase in the share of service sector in India. The structural shift analysis confirms that the sectoral growth trend has changed in favour of service sector after open policies have been initiated. The theoretical model considered in the study suggest that apart from service sector growth, industry, agriculture and open policies of 1990’s also have positive impact on India’s economic growth.

19) GDP Analysis of Uttar Pradesh, (2005)

The study was under taken by the Government of Uttar Pradesh and the report was presented in the Economic Survey of Uttar Pradesh. The report analyzes the growth of GSDP of Uttar Pradesh economy”. The study period is 1981 to 2003. The study shows that Uttar Pradesh attained respectable growth in gross state domestic product (GSDP) only during the period of 1986-87 to 1990-91 with respect all India performance. Slow growth occurred in all three sectors of agriculture, industry and services. The result was slow growth in per capita income as compared to all India level. Primary and secondary sector needed to be exploited properly, sluggish growth in power and tertiary sector have raised doubt about the overall performance of the state. There was low yield in the agriculture sector, low level and skewed industrialization.

The paper entitled “Understanding India's services revolution” analyses the factors behind the growth of the services sector in India. The study has been divided into three periods 1950-8- and 1981-90 and 1991-2000. Authors have considered three sectors of Indian economy in the agriculture, industry and services sectors for their study. The author has analyzed the tertiary sector in this paper. The study objectives are to identify the services activities where growth was high; to analyze the various possible factors behind the dynamism of the service sector also provides economic analysis of the importance of each hypothesis to explain growth. The author has analyzed the services sector considering its sub sectors, like business services, communication services, banking sector community and hotels and restaurants, insurance etc. The conclusion states that the services sector in India has grown faster than agriculture and industry. The acceleration in the growth in services sector was mainly due to fast growth in communication, financial services, business services (IT) and community services (education and health). The paper shows that factors such as high income elasticity of demand and increased input usage of services by other sectors have played an important role in elevating services growth.
This paper entitled *The pattern and causes of economic growth in India* presents the broad macro parameters of the growth of the Indian economy since the nation’s independence and a cross-country evaluation of where India stands, drawing out the patterns discernible in these aggregative statistics. The paper gives an overview of the on-going debate on the components of the Indian growth and the relative importance of the different policies in the 1980s and 1990s. It contributes to this debate by identifying the landmark years, and analyzing the politics behind some of the economics. The paper also analyses the factors behind the changes in India’s savings rate and the relation between growth and development, on the one hand, and the nature of labour market regulation, on the other. What this paper attempts is to analyze and understand the constellation of forces that has determined the growth performance of the Indian economy, including its long period of hibernation and sudden, recent show of dynamism. The first task in such an undertaking is to get the facts right. The study period is 1950-51 to 2005-2006 and the study period has been divided into 4 phases. The authors have calculated the growth rate to see the growth and also analyzed the trend of the GDP of the economy. The paper draws conclusion that the main bottlenecks in the Indian economy will need to be addressed. These are infrastructure (roads, expensive freight rates, power supply,
ports, and airports), labour and bankruptcy regulations, and the high level of corruption in the government bureaucracy. In addition, the current erratic and low growth pattern of the agricultural sector and the rising inequality between states, between rural and urban areas, and within urban and within rural areas mainly since the 1990s are a concern.

22) Madhusudan Datta, (1999)

The paper entitled "How does the tertiary sector grow? The Indian Experience" investigates into the reason being held for the growth in the tertiary sector, the study has been made for the period of 1950-51 to 1996-97. The study of structural change concomitant to economic development divides the set of all economic activities into three broad sectors: The primary, the secondary and the tertiary sector. The share of the tertiary sector in gross domestic product is supposed to be linked to the degree of development of a country. The author shows that the share of sub sector of tertiary sector in GDP at factor cost gradually increased from 8% in 1950-51 to more than 12% in 1996-97. The study showed that instead of the structural change in the manufacturing sector the input intensity of the overall registered manufacturing sector has increased overtime thus the evidence suggested that the Indian economy tended towards gradually more intensified use of intermediate inputs in all the sectors and particularly so in the manufacturing sector. (According to author, the key
factor behind China’s impressive growth is its integration into global economy, the high rate of capital accumulation (the biggest contributor to Chinese growth) also the existence of circular agricultural labour, the access to international markets for labour intensive manufactured goods accelerated the movement of labour out of low productivity agriculture into high productive industry.

23) Manoj Panda (Nov, 2008)

In the study entitled “Economic development in Orissa: growth without inclusion” author has analyzed the gross state domestic product, the growth of GSDP and the study covers a period from 1980 to 2006. The economy of Orissa has been lagging behind the national economy by several decades. Its per capita net state domestic product, a measure of average income, stood at Rs 20200 for 2006-07 which falls behind the national average about 35 percentage. The study analyzed that Orissa’s real GSDP has grown by an average annual rate of 4.8% and a long term basis during 1980-81 to 2006-07 compares to 6% for the same period for the nation as a whole, the average GSDP growth rate of 8.6% per annum during the period of 2002-3 to 2006-07 compares very well with the national level. The economy of Orissa has been going through structural changes away from agriculture in favour of industry and services with contribution of agriculture and allied activities decreased the share of manufacturing and services sector increased. The author concluded that Orissa
has substantially improved its growth rate in real gross state domestic product. It now seems that there has been a turning point in the last few years and the economy of Orissa has witnessed acceleration in terms of GSDP. Study Period – 1980-81 to 2006-07 Methodology used: To calculate trend growth rates in GSDP, regression of the type

\[ Y = a + b \cdot T + c \cdot D \cdot T, \]

Where,

\[ Y = \text{relevant Income} \]
\[ T = \text{Time trend} \]
\[ D = \text{Dummy variable} \quad D = 1 \text{ for } 2003-04 \text{ to } 2006-07 \text{ and } 0 \text{ otherwise.} \]


The research paper entitled “Maharashtra and Gujarat important cogs in India’s wheel of growth” analyzes the gross domestic product of these two states and the per capita income growth in these two states. The compound annual growth rate has been compared for the period 1994-2009. The analysis of the structural composition of GSDP and comparison with the national growth and national average. The author shows that the contribution of these two states was more than 195 of the GDP with Gujarat had the fastest CAGR in GSDP growth (at current prices) at 13.6% in the
period FY00-FY07. The structural comparison of GSDP is in favour of secondary and tertiary sector. Also, both the states are much better place than the national average in terms of per capita income. The level of industrialization being high in both the states. The author concluded that the growth trajectory of both the states has been good to a large extent and there would continue to be of critical importance for the nation’s growth.


This working paper entitling “Structural Change in the World Economy: Main Features and Trends” presents a quantitative analysis of sectoral trends in the global economy. After surveying the relevant theoretical and empirical literature on structural change, we discuss the historical evolution of agriculture, industry and services in terms of their share of world value added. This analysis refers to six continental regions and covers a period of 40 years. Constant-market-shares (CMS) analysis is then used to investigate changes in the contribution of regional aggregates to world production. This is followed by an analysis of the evolution of the manufacturing industry and the intensity of structural change for a sample of 30 countries and 18 sub-sectors for which data are available in the UNIDO INDSTAT 2, 2009 database. Three main findings resulted from the analysis. First, the long-term rise in the share of services in global value added has been slowing down in the last
decade. Second, the upward trend in the global value added share of North America and Asia seems to be partly reverted in favour of other regions. Third, after a setback during the 1980s, structural transformation in the manufacturing sector has been accelerating in the last two decades. The purpose of this paper is to provide a starting point for more specific studies at sector, national and regional level. The terms “structure” and “structural change” have become widely used in economic research, although with different meanings and interpretations. In development Economics and in economic history, structural change is commonly understood as “the different arrangements of productive activity in the economy and different distributions of productive factors among various sectors of the economy, various occupations, geographic regions, types of product, etc”.

26) P. Mohanan Pillai and N. Shanta, (2005)

The study “Long term trend in the growth and structure of the net state domestic product in Kerala” covers a period from 1970 to 2000. This paper is an enquiry into the long term growth process of the regional economy of Kerala for the period 1970-71 to 1999-2000. The author used three indicators to test for structural transformation in the economy, estimate rank correlation for sectoral shares, growth rates and sectoral contribution to growth. The study comes to certain conclusion as follows, In terms of income originating in the economy, agriculture and trade
continue as a major contribution even today although there shares together has declined from 54% in the seventies to 42% in the nineties. Individually also their shares have declined. It was observed that both in terms of rates of growth and shares in NSDP, the tertiary sector has predominated which has largely been brought about by growth of the producer services. Growth of producer services presupposed linkage with the production sector. This increase can be attributed to the sector of banking and insurance, and transport by the means. The analysis of structural transformation in the economy suggest that although structural change has been there, it was found to be very moderate and has not been strong enough to bring about a major change either in terms of the growth centers of the economy or the main contributors to the growth of the economy

27) Prof. J. George, (2006)

The author in the study entitled "Towards a primary sector growth policy in Haryana" analyses the sectoral growth trends in Haryana for the period of 1993 to 2003. The study also shows the sectoral composition of the different sector and the trend in all the three sectors comparing it with the India’s sectoral growth and trend. The author also throws light on the analysis of the different subsectors of the primary sectors. The study points out the different determinants and factors responsible for the growth of the primary sectors in Haryana.

The author in the paper entitled "The recovery of India: Economic growth in the Nehru Era" investigates the relationship between the policy regime and growth during 1950-64., termed here “The Nehru Era” while there exists early appraisals of the period, access to new data and information allows for a longer and more comparative view of the outcome. The author finds overwhelming evidence not only of resurgent growth, but also of lasting information of a significant colonial enclave into an economy capable of sustained growth. The paper also addresses some lingering perception of policy of the time, notably its impact on agriculture and the governance of the public enterprises. The author finds a record of growth in the Nehru era with respect to the three sectors the Indian economy. The author concluded that the picture that has emerged has a bearing on two unrelated questions. The Nehru era witnessed the recovery of India and the lightening of a growth process that has remained undimmed for over five decades.


K.V. Ramaswamy in his paper entitling “Regional Dimension of Growth and Employment” has focused that regional inequality has emerged as a key issue in recent discussions of development policy. States within India differ greatly in terms
of economic growth and employment potential. This paper examines some aspects of this regional employment growth in India during 1983 to 2004-05. The results confirm widening interstate disparities in income in the first quinquennium of the 21st century, a continuation of the trend of the 1990s. Urban employment occurs strongly in initially urbanized states. All states are found to be diversifying, but at a slower pace in low income states. A geographic concentration of skilled labour is observed in financial and business services.


The bottom line of the Economic survey 2006-07 is: General optimism on a steady GDP growth towards the coveted 10 percent and its double caution over inflation and a somewhat sluggish agricultural growth. By all accounts, the nation is truly poised for the next wave of growth. The optimism flows from strong economic fundamentals built over low successive year of nine percent plus GDP growth. Projecting a growth rate of 9.2 percent in 2006-07, the survey has highlighted the steady progress on the infrastructure front and a sharp rise in the rate of investment. It also points with pride to the double-digit growth rate for the fourth successive year in trade, hotel and transport and communication services. There has been momentum in growth in financial services, maintained at 11.1 percent in 2006-07. It expects an increase in saving rate with higher growth of economy.

The author in the paper “Regional sources of growth acceleration in India” has divided the Indian economic growth into four phases since the beginning of the twentieth century. The author analyses the gross domestic product of India for these four phases constituting a period from 1900 to 2004. Compound growth rate has been calculated for these four phases. The study further analyses the contribution of 20 states in the national output growth, the state’s contribution to the growth acceleration by the three sectors viz. primary, secondary and tertiary sector. The methodology used is the calculation of growth rate by compound growth rate formula and trend analysis by the use of regression analysis. The present study finds that Gujarat, West Bengal, Karnataka, Maharashtra and Kerala are the major contributors to the growth acceleration of 62 percentage points in India 1991-92. All of them except West Bengal have higher national per capita income than the national average. Author suggests, in order to achieve a complementarity between the growth and equity objectives, it is necessary to implement policy change. It is important for the natural policy makers to provide economically and geographically well integrated national markets for all goods and services which can be done by removing or at least reducing significantly all barriers to the movement of goods and services across states.

The Report “State Domestic Product Analysis” shows the analysis of the state domestic product of Andaman and Nicobar Islands. The article calculates the GSDP and NSDP and the growth rate of the GSDP, dividing the state economy into three sectors i.e., primary sector, secondary sector and tertiary sector. The article analyses the sectoral contribution of the different sectors in the state income. The article also compares the gross state domestic product with the all India gross domestic product. The study considers a period of seven years from 1999-00 to 2005-06. The methodology used to calculate the GSDP is adopting one or more of the approaches used in India to calculate GDP. Growth rate are calculated for the GSDP and the three sectors. The trend line is drawn using regression line. The paper shows that for the state economy the highest contribution was made by the services sector, 56.64% in 2001-02, with primary sector contributing 31.6% and secondary sector contributing only 19.2%. The sectoral contribution of gross domestic product gives an idea of the relative position of different sectors in the economy over a year of time and indicates the real structural change taking place in the economy. The primary sector contributing coming down to 15.82 % in 2005-06 and having annual compound growth rate of 6.51% within the span of 6 years. Contribution to GSDP under secondary sector has increased from 11.32 % in 1999-
00 to 36.09 in 2005-06. Also the A and N Island constant price per capita income is more than that of All India. The per capita income of A&N Islands increased from Rs. 24,005 to 28,637 having increase of 2.99%.


The study “Growth in India's state economies before and with reforms: Shares and Determinants”. The authors have taken fourteen states of India to study the growth in the GSDP and their shares in the all India GDP. This paper profiles India’s regions and most progressive states, with particular reference to recent growth, development and recent outcomes. It examines the growth rates, and shares and their determinants. The study period is from 1980-81 to 1998-99. The authors have categorized the states in three economies viz. the high, medium and low performance state economies. The study is based on secondary data. The author comes to a conclusion that the growth rate (GDP) for India for 1993-94 was 6.6% while that for the fourteen major states at 6.1%, the state of Maharashtra, Karnataka, Tamil Nadu and Gujarat had the highest average growth rate of 7.45 per annum in real GDP, while the medium economies like W.B., A.P, Kerala, M.P. and Rajasthan has a average growth rate of 6.1%. About sectoral growth rates, agricultural sector growth rates were not significant; the state performance was mixed one. The level of
per capita income in the high economies was high as compared to the medium and small state economies.


The paper "The service sector evolution in India: A quantitative analysis" investigates the growth of service sector and its contribution in the GDP of India for the period 1980-1999. According to study after the economic liberation in India, the service sector has gained performance in the economy as it accounts for the largest share of GDP and also that the share of this sector in the GDP has been growing rapidly. Empirical data reveals two significant trends in the service sector following liberation in 1991, growth in service sector productivity and growth in services trade. The objective of the paper was to build a simple three sector quantitative model which can capture the increase in the share of service sector in GDP after liberation within the context of the model, there are two exogenous changes that occurs across the two steady states years, 1980 and 1999, Growth in sectoral total factor productivity (TFP) and increase in the level of trade in the industrial and services sectors. The result from a counterfactual experiment reveal that shutting down sectoral TFP affects the ability of the model to capture the data trends whereas the absence of sectoral trade negligibly affects the result. The author concludes that
services productivity growth verses the increase in services trade can be better explain the value added growth observed in the Indian services sector.


Mr. Saluja in his paper entitled “Gross domestic product from Services Sector” deals with the methodology and data sources used for estimating gross value added from different categories of services, especially from the unorganized sector. The GVA estimates are first obtained for benchmark year as a product of workforce estimate with the GVA per work. These are moved forward to get the corresponding values for subsequent year by making use of physical and price indicators. In this paper we discuss the problems in getting the estimates of workforce for the base year. In most cases consumer price indicates are used to estimate GVA per worker at current prices. It also discusses the problems relating to the use of physical indicators. Some suggestions for improving the estimates are given. The contribution of the service sector to gross domestic product (GDP) has grown at a much faster rate than the economy as a whole. The growth has been tremendous in transport other than railways, communications, and business services, especially software and financial services.
In the study entitling "The rising share of the service sector in the gross domestic product: India" marks a structural shift in the Indian economy and brings it closer to a developed economy. In view of its rising importance, an attempt has been made in this paper to present the salient features of changes in the methodology and coverage of this sector in the new series (base 1999-2000) of national accounts statistics. Services are crucial for the economics of both developed and developing countries. An efficient service infrastructure is a prerequisite for the economic performance of a country. Producers and exporters of textiles, cars or computers will not be competitive without access to efficient banking, insurance, accountancy, telecommunications or transport. Access to world class services helps exporters and producers in developing countries to capitalize on their economic strength. They lead to consumer savings, faster innovation and technology transfer. They contribute to long term investment. Moreover, the rapidly expanding service sector is contributing more to economic growth and job creation worldwide than any other sector. The service sector has been India’s most dynamic in recent years, with telecommunications and information technology registering particularly rapid growth. The rise in the service sector's share in GDP marks a structural shift in the Indian economy and brings it closer to a developed country. The share grew from 40.6
percent in 1990-2000, to 49.3 percent in 1999-2000, whereas the secondary sectors have remained static around 24.5 percent from 1990-91 to 1999-2000. The agriculture sector has shown a contrast to services with its share in GDP coming down to 27.6 percent in 1999-2000 from 34.9 percent in 1990-91.

37) Seema Joshi, (2008)

The paper entitled “Services sector in India’s economy: performance, problems and prospects” provides a brief overview of performance, prospects and problems encountered by the service sector in the India’s economy. The study has been done for the period of 1950 to 2000. The analysis brings out the fact that there has been taken place ‘tertiarization’ of the structure of the production and employment in India. During the study period the Indian economy has experienced a change in production structure with a shift away from agriculture towards industries and tertiary sector. The study concludes that the share of agriculture sector in real GDP had declined but at the same time the share of industry and services increased. During 1950’s dominant sector was primary sector but scenario changed in 1980’s, the tertiary sector has emerged as a major sector of the economy both in terms of growth rates as well as share in GDP in 1990’s. The author shows that one of the major drivers of service sector growth is the post globalization era in India is the IT and ITES sector. The paper concludes that the futurists are very optimistic regarding the bright future
and performance ahead of the sector and India being called the “services hub” of the world.


The author in the study “Growth Interdependent Among Indian States: An Exploration” aims to test whether there are any significant trickling down effects of economic growth across the Indian states and to identify the factors influencing the existence of such effects, using data from 1971 to 1998, and the standard substantial test of causality, this study suggests that transmission of growth impulses across states have been limited. The result indicate the structure of the economies, the growth rates of the states appear to raise the potential for significant trickle down growth effects across states, The conclusion drawn by the authors were that the linkages of states in terms of economic growth are limited. Only three states were found to influence the performance of the other states and four states were found to be influenced by the performance of the other states put together. This latter category of the states included smaller states such as Kerala and Orissa whereas the first category included Gujarat, Rajasthan and Madhya Pradesh.

In the study entitled “Agricultural Development and sources of Output Growth in Maharashtra State” contribution of agricultural sector in GSDP has been studied with effect to Maharashtra state. Agricultural development is an integral part of overall economic development. The Indian Economy comprises of several important sectors, which contribute to total national product. But by far, agriculture is the main stream of Indian economy. The state Maharashtra had the third highest per capita state domestic product (SDP) among all states in 2000-01 (GOM, 2003) contribution of agriculture to the net SDP has been less in Maharashtra as compared to the national average. The share of agriculture and allied activities in NSDP declined steeply from 36% in 1961-62 to 16.0 in 2001-02. Study Period – 1961-62 to 2001-02.

Methodology:- compound growth rates can be calculated Y=ab+, CGR (r) =(b-1) x 100. The ‘t’ test was applied to test the significance findings.

40) S. Mahendra Dev, (2007)

The paper entitled “Inclusive growth in Andhra Pradesh: Challenges in agriculture, poverty, social sector and regional disparities” deals with inclusive growth in Andhra Pradesh. The paper concentrate on four elements of inclusive growth in agricultural
growth, employment generation and poverty reduction, social sector (health and education) and reduction in regional and other disparities. The study covers the state of Andhra Pradesh seven districts, and the study period showing the trend growth of overall GSDP and that of agricultural and per capita GSDP is from 1960-61 to 2004-05. The secondary data used has been corrected from its directorate of economics and statistics Andhra Pradesh Hyderabad. The data was 1960 base year, which is transformed to a single base year in 1993-94 prices for which author has used splicing method. The author concludes that the ‘turn around’ in the GSDP of AP in the period from 2002-03 to 2006-07, the growth rate was 6.9% during 2002-07 and 7.8% during 2003-07. Agricultural growth in the first four decades (1960’s to 1990’s) was lower in AP as compared to all India. It was higher than all India only during 1994-95 to 2004-05. Per capita income in terms of net SDP in AP has always been lower than all India. The ratio of AP to all India per capita net SDP was 95.7% in the year 1993-96, but increased to 99% in the recent years 2002-05. In the last five years (2000-05), growth of GDP in agriculture was less than one percent per annum. The author concluded that Andhra Pradesh to be improving in economic growth. The growth rate of the GSDP in the last four years has been 7 to 9% per annum. However the post reform period witnessed increase in disparities across regional and social groups and between rural and urban areas.

In the study entitled “Development trends in selected states issues of governance and management” the author examines the gross state domestic product per capita income and management finances of states of Andhra Pradesh, Gujarat, Maharashtra, Karnataka, Kerala and Tamil Nadu for the period of 2005-06 to 2008-09. The author ranks the state in terms of per capita net state domestic product on the basis of estimates of GSDP growth and per capita income. The author also analyzes the key fiscal indicator of these states. The author draws the conclusion after this study that along with Haryana, Punjab are among the more progressive of the larger states of India. They are characterized by high growth rates of GSDP, and which is reflected in the steady increase in per capita income.


This paper entitling “Estimates of Indian GDP constructed from the output side for the pre-1871 period” provides GDP estimates and combines them with population estimates to track changes in living standards. Indian per capita GDP declined steadily between 1600 and 1871. As British living standards increased from the mid-seventeenth century, India fell increasingly behind. Whereas in 1600, Indian per
capita GDP was more than half the British level, by 1871 it had fallen to less than 15 per cent. As well as placing the origins of the Great Divergence firmly in the early modern period, the estimates suggest a relatively prosperous India at the height of the Mughal Empire, with living standards well above bare bones subsistence. This paper provides estimates of Indian GDP constructed from the output side for the pre-1871 period, and combines them with population estimates to track the path of living standards. Indian per capita GDP declined steadily between 1600 and 1871. As British living standards increased from the mid-seventeenth century, India fell increasingly behind. Whereas in 1600, Indian per capita GDP was more than half the British level, by 1871 it had fallen to less than 15 per cent.

43) Souvik Ghosh and Ashwani Kumar, (2010)

The paper entitled “Performance of Irrigation and Agricultural Sector in Orissa: An analysis of missing links”. The authors have studied the irrigation and agricultural sector performance and their influence on economic development on the state of Orissa. The study period is 1998-99 to 2005-06. The authors have calculated the growth rate in the agricultural sector and Orissa is endowed with rich water resources but due to inadequate exploitation of these for income generation activities. Orissa ranks very low among the Indian states in terms of per capita income. The methodology used the analysis of irrigation and agriculture sector were
carried out through literature review, secondary data collection and group discussion
with the functionaries. Trends were set to understand the growth in irrigation and
agriculture sectors over a period. The data collected from economic survey of Orissa
e tc. Agriculture plays a very dominant role in state of Orissa. The agriculture in
Orissa is characterized by low productivity; Orissa’s growth over last two decades
has been below the national average. Annual growth rate during 1980-81 to 1999-00
was 3.4% for all India and 1.9% for Orissa, because of slow agriculture growth. The
statistic shows no growth at all for Orissa during the recent decades. The authors
conclude that the agricultural growth holds the key to the overall development of
Orissa state by way of creating employment, generating income, providing raw
material to the industrial sector and ensuring self reliance in food production and
food security.


The paper entitled “India: Country growth analysis” attempts to provide a broad
based description of the growth performance of the Indian economy over the past
decade and a half. The choice of the period for the analysis is of course based on
the 1991 reforms programmes, which many people consider a significant structural
break in the country’s policy regime, whose ultimate criterion of success is whether it
has taken the economy to a higher growth path, which is sustainable. The study
analyses the share of GDP share of India in world GDP and further analyses the
different sector growth and its contribution to the GDP of India. It also studies the
structural change during the study period. The study concludes with address to the
constraints to sustainable, inclusive and balanced growth.


“Growth of services sector in a predominantly agricultural economy of Punjab” The
present study looks into the pattern of growth of services sector in Punjab from
1970-71 to 2002-03. it gives an overview of the growth of services sector in India.
This brings to focus the growing importance of this sector in terms of its contribution
to the GDP. Further it examines the changing profile of the Punjab economy and the
contribution of the tertiary sector to the state income. The growth of various sub
sectors of the tertiary sector in Punjab is discussed and also the studies bring out
the sector wise distribution of work force and the last section concludes the paper. In
this study, Upinder Shawney had shown the growth of services sector in the Punjab
state economy. Services play a central role in the economies of both developed and
developing countries. They account over half of the GDP of developed economies
and contribute the single largest sector in most developing countries. The successful
growth of the primary and secondary activities in the economy, to a large extent,
dependent upon services offered by banking, insurance, trade, commerce,
entertainment, maintenance of machinery and equipment and numerous other services categorized as tertiary activities. Study Period: 1970-71 to 2004-05

Methodology:- Decadal compound growth rates of GSDP.


In the study entitled "service sector" growth in China and India: A comparison" the author examines and compares service sector developments in these two Asian giants. Service sector in India and China have played a very different role. In India, the service sector contributes to more than 54 percent of GDP while its GDP share in China is much smaller (below 41 percent in 2004). It investigates the determinants of demand for services and sheds right on the outlook for service sector growth in the two countries. Three empirical models are employed to examine the factors affecting demand for services internationally as well as in China and India. The paper discusses the growth outlook of services in the two countries. The study follows the conventional classification; an economy is divided into three sectors, i.e., primary, secondary and tertiary sectors. The study concluded the role of services in both economies has been rising with China starting on a lower base. Growth has mainly been driven by increasing specialization of production, rising standard of living and accelerated urbanization in both societies. It was concluded from the study
that in comparison with India, China’s service sector is lagging behind and even in international perspective; china’s service sector is below the average.


In the paper "Chinese economic growth: sources and prospects" the author analyses the growth experience of China in the 1979-93 period with the objective of one assessing the likelihood of attaining the 8% growth target and to venturing an opinion on policy measures that could enhance stable growth without raising the fixed asset investment rate. The paper takes a closer look at the economic growth in the agricultural and the industrial sector, the paper reviews the main challenges for economic growth in China, and the paper conclude with an assessment of future economic growth. All real GDP figure reported in this paper are based on 1990 prices. The study is for the period of 1978 to 1993. The study is based on secondary data and the author has considered the mechanics of growth based on three sectors as defined by Chinese statistics. The statistical method used is \( Y = S(\alpha x + \beta Z) + L \beta K + \alpha \), They had shown the annual growth rate and sectoral contribution of the different sectors and sub-sectors. According to the author the key factor behind China’s impressive growth is its integration into the global economy, the high rate of capital accumulation (the biggest contributor to the Chinese growth), also the existence of
the surplus labour, the access of international market for labour intensive manufactured goods accelerated the movement of labour out of low productivity agriculture into high productivity industry.


This paper “The analysis of different economic growth rates among countries” analyses some reason which bring about diversity of economic growth and if possible motivate rapid economic growth in the future. The author have analyzed the situation of diverse growth rates in the world and also the analysis of possible reasons behind this diverse growth rates of GDP, the authors have also analyzed the factors that influence the economic growth. The study period is from 1982 to 2002. The study is based on secondary data. The author comes to a conclusion for the study that there are a variety of factors which influence economic growth correspondingly. The author has analyzed three factors viz. economic growth with good governance, technological progress and lastly the population growth.

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