1.1 Disparities in economic development is a vexing problem in regional analysis. Scholars differ about the reasons for the inequalities among different regions of a country. Professor Hirschman (1959)\(^1\) is of the view that regional inequalities are the inevitable concomitant and conditions of growth in itself and economic development cannot be balanced. From the geographical point of view, economic development is always unbalanced. Professor Gunnar Myrdal (1958)\(^2\) maintains that the main cause of regional inequalities has been the strong backwash effects and the weak spread effects. Economic development results in a circular causation process as a result of which the rich are more favoured while the efforts of those who lag behind are thwarted. There were many other explanations for the inequalities in growth.

Disparities in the levels of economic development of various regions in the country have been recognised as

one of the major constraints on the rate of growth of the national economy and a source of social tension and political instability. Empirical studies made by Kuznets and Williamson suggest that there is a systematic relation between national development levels and regional inequality. Correction of regional imbalances in development has, therefore, become serious consideration of policy makers. Development policies of the government in these days are increasingly judged not merely by their success in achieving a rapid expansion of aggregate real output but also in terms of how the fruits of development are distributed among different classes and regions.

Regional inequality has been a common feature of federalism. It is noticed that state intervention has been increased and thereby conscious policies have been adopted in several countries to reduce the disparities in levels of economic development. The great depression and the emergence of the welfare state concept compelled the governments one after the other to realize the necessity of

enlarging their functions beyond the traditional role of securing national defence and maintaining law and order. As a matter of fact, the philosophy of Laissez Faire started in the 19th century and its continued practice led to the existence of distress and luxury, starvation and plenty, opulence and poverty, side by side. Besides, industrial revolution contained the seeds of state intervention in the economic life of the country. It disrupted the old economic pattern and gave birth to numerous social and economic problems. The state, in such a compelling condition, could not afford to remain a passive spectator.

In the developed countries the problem is confined to a few backward areas and areas which for geographical and other reasons, are found to be lagging in the process of development. In UK, the successive world wars and the great depression in the 1930s prepared the necessary grounds for government intervention and control. The Labour Party, after assuming power, resorted to programmes of large scale nationalisation and thus giving the public sector a respectable place in the economy. In France, the trade unions played an active role in giving an impetus to the movement towards nationalisation. Due to the...
reluctance of private investors to risk their money in
industrial enterprises other than the well established
fields, the Italian Government accelerated the process of
nationalisation.

In communist countries, their economic foundation
was based on the socialist system, that is, the socialist
ownership of the instrument and means of production, the
liquidation of capitalist system and abolition of private
ownership which transformed the whole economy into a vast
public sector. Rapid economic development attained by
these countries demonstrated to the world in general and
for India, an inheritance from the colonial past. At the
beginning of the First Five Year Plan (1950-51) the per
capita income of Bihar which stood at the bottom of the
state income ladder was only less than two-fifths that of
West Bengal which stood at the top. Also, Bihar's per
capita income was only three-fifth that of the national
average. The levels of unemployment, underemployment particularly in the
agricultural sector, adds a new dimension to the regional
problems in the under-developed countries. While the
problem of congested metropolitan areas has become acute in
most of the developed countries, it has also become
significant in some developing countries.
In India, efforts have been afoot since independence to reduce regional inequalities and during the previous decades a series of measures have been taken by the Central Government as well as State Governments to promote dispersal of industries. But there is growing evidence to show that inter-state disparities have remained undiminished in various dimensions of development and in certain cases they have been further aggrevated. The problem of regional disparities is, therefore, increasingly becoming a matter of greater concern to policy makers. The problem of regional disparities in economic development is, for India, an inheritance from the colonial past. At the beginning of the First Five Year Plan (1950-51) the per capita income of Bihar which stood at the bottom of the state income ladder was only less than two-fifths that of West Bengal which stood at the top. Also, Bihar's per capita income was only three-fifth that of the national average.  

It has been pointed out that this uneven development resulting in regional disparities was not due to any uneven resource endowments. India's developmental
experience cannot be studied without referring to the historical facts of protracted colonial dominations and the way the mechanism of imperial exploitation affected the different segments and regions of the economy. In these circumstances, it was understood by the Indian planners this uneven growth would perpetuate itself and the further widening of interstate disparities would not do any good either from the political or economic angle.

Balanced regional development in India has been a major objective since the beginning of the planning era in the country. "In the perspective of long-term development with the economy advancing rapidly towards the stage of self-sustained growth and with steady rise in the living standards of the people, regional and national development are essentially two different facets of a common objectives". The Third Five Year Plan document contained a separate chapter on balanced regional development and stressed that balanced development of different parts of the country, extension of benefits of economic progress to the less developed regions and wide spread diffusion of

industries are among the major aims of planned development. But a number of studies, however, have shown that the interstate disparities have remained unchanged. The major objective of Indian Plans—balanced development—has not been fulfilled. In fact, the interstate disparities have only widened during the plan era.

Though industrial dispersal was one of the cornerstones of the regional policies of Indian planners, industrial growth during this period was much more uneven than the growth in state income, although the share of secondary sector in the state income increased in the case of all states. Agricultural growth during this period also was highly uneven. Similar disparities, by and large, are visible when we look into the relative status of states with regard to absorption of inputs like irrigation, water and fertilizers. Disparities existed not only in state

8. Ibid.
income, central sector investment, but also in the unemployment rates and population below poverty line. What is more, they are increasing as was brought out by Raj Krishna.\(^\text{11}\)

Regarding population below poverty line, it is found that as many as seven states had more than 14.13 per cent (all India average) of their population below this line. The highest population below this line was in Orissa (66.4%) followed by Bihar (57.4%). Out of the seven states five states are concentrated in North-Eastern regions. Some of the better-off states in this respect are Punjab (15.13%) and Haryana (24.84%).

The unemployment rate was the highest in Kerala at 25.69 per cent in 1977-78. As compared with the all India average of 8.18 per cent of the rate exceeded in Tamil Nadu, Andhra Pradesh, West Bengal and Karnataka.

Data related to road length per 100 sq. km. in 1978-79 show that Maharashtra is having the lengthiest surfaced length 232 per 100 square mile of area while the all India average is 49 per 100 sq. miles. In this period six states were below the average.

output per capita and is followed by Gujarat (Rs.1378). Other states which are sufficiently better-off in this respect are Punjab, Tamil Nadu, Haryana and West Bengal. As compared to all India average of Rs.621/- the states which have the lowest are Orissa (224), Uttar Pradesh (271), Bihar (334) and Madhya Pradesh (341).

Besides the above discussed indicators, there are other pointers such as per capita power consumption, road length, rate of urbanisation, literacy, health etc. which could also be considered. The per capita power consumption in the same year was the highest in Punjab (314 kwh) followed by Maharashtra (296), Gujarat (243) and Haryana (202). While there are only six states having per capita consumption of power at the all India level of (130 kwh), the lowest in this ladder are Bihar, Uttar Pradesh, Andhra Pradesh and Kerala.

The statewise literacy rates for the three census, that is, 1961, 1971 and 1981 indicated that Kerala occupied the first position among all the states in all the three censuses. Maharashtra witnessed an improvement from fourth in 1960 to second rank in 1981 among all the states. The literacy percentage in 1981, of the following states were below the average.

With regard to urbanisation, it shows that among the major states, Maharashtra is the most urbanised with 35.03 per cent of its population living in urban areas. Next to Maharashtra in the descending order of proportion of urban population to total population would come Tamil Nadu, Gujarat, Karnataka, Punjab and West Bengal. These states have a proportion of urban population to total population higher than the national average of 23.73 per cent. Andhra Pradesh, Haryana, Rajasthan, Madhya Pradesh, Kerala, Uttar Pradesh, Bihar and Orissa among the larger states have a proportion of urban population to total population in the order but below the national average. The percentage of urban population to total population in Bihar is 12.46 which is slightly higher than half of national average.12

The statewise literacy rates for the three census, that is, 1961, 1971 and 1981 indicated that Kerala occupied the first position among all the states in each of the three censuses. Maharashtra witnessed an improvement from fourth in 1960 to second rank in 1981 among all the states. The literacy percentage in 1981, of the following states,

was less than the national average of 36.2 per cent. Andhra Pradesh (29.9), Bihar (26.2), Madhya Pradesh (27.9), Orissa (34.2), Rajasthan (24.4) and Uttar Pradesh (27.2). Thus Rajasthan had the lowest literacy percentage and the next in the order were Bihar and Uttar Pradesh.

From the angle of medical and health aspects, Kerala (169 beds per lakh of population) was the most developed state in the country. The next in this order were Maharashtra (128), Punjab (119), and Gujarat (111). The state of Madhya Pradesh ranked the lowest ladder having 31 beds per lakh of population, followed by Bihar (38), Orissa (43) and Uttar Pradesh (44). A similar picture emerges with respect to number of hospitals and dispensaries. The four most backward states in the country had extremely low level of medical facilities in terms of the availability of beds in hospitals and dispensaries.

The above discussion shows that there is a tendency towards convergence during the early seventies and the trend towards divergence appears only in the later plans, especially eighties, in spite of the fact that Indian Planning had set balanced regional development as one of
its goals. It may be argued that since there is a "trade off" between the national objective of high growth rate for the economy as a whole and the regional equity objective, widening disparities are unavoidable or even necessary to achieve a higher growth rate for the economy as a whole and the regional equity objective. This argument would have been right if the early stages of development had taken place as per with the factor endowments of different states. As observed earlier, development of earlier parts of the country took place due to historical reasons to observe the military and economic objectives of the colonial power. Paradoxically, some of the poorest states in India today are also the richest in national resource endowments.

Regional changes take place only slowly over the decades, unless policy measures are taken to speed up the process. This is because "where large regional gaps persist within the same national economy, it is apparent

13. The first three Five Year Plans, sometimes implicitly or explicitly, assumed such a "trade-off". See K.R.G.Nair, op.cit., pp.134-135.
15. For the resource endowments of some of the poorest states like Bihar and Madhya Pradesh in India, see Raj Krishna, op.cit., p.9.
that there is some degree of immobility of factors of production. Capital does not flow to the poor regions in sufficient quantities to provide jobs and raise income and thus eliminate the gaps; nor does labour move to the rich regions finding there higher income and employment so that the gap disappear.\textsuperscript{17} Eventhough there is inter-state migration in India it is not in a high magnitude as to bring about reduction in inter-regional disparities, because of the size and distance. Besides, there are differences in language, race, religion and culture. On top of this, there have been the 'sons of the soil' agitation, the agitation for separate Thelghana, cry for separate Jharkhand state, Assam agitations etc. All these indicate the dissatisfaction with the existing policies and programmes related to regional development, location of projects etc.\textsuperscript{18} In such an economy the "trickling down effects" of development are likely to be smaller than the "polarisation effects".\textsuperscript{19}

\textsuperscript{17} H. Benjamine, "Taxation and Trade off Curves", The Economic Times, Annual No., Bombay, 1974.

\textsuperscript{18} V.Krishnamoorthy, Regional Development and Industrial Disparities in India, Chugh Publications, Allahabad, 1990, p.8.

\textsuperscript{19} Hirschman's term for the factors leading to convergence and divergence, Myrdal calls them "Spread effects" and "Backwash effects". See (1) A.O.Hirschman, The Strategy of Economic Development, New Haven, 1961 and (2) G.Myrdal, Economic Theory and Underdeveloped Region, Methuen, London, 1957.
It may be argued that the regional disparities are lesser in India than in many other developed and developing capitalist and socialist economies. But as the Sixth Finance Commission, which noted this argument, observed even the relatively small disparities cannot be ignored when the absolute levels of per capita income are low. The reduction in inter-state disparities is a desirable end in a nation like India. The Indian policy with its regional constituencies organised on linguistic basis within these circumstances, it cannot be expected to withstand for long the weight of the lop-sided economic development. It has been often pointed that the political events in the North-East, Assam and Punjab have certain economic understones. The threat to federal policy comes


from the poorer as well as the richer federating units. As R.J. May, surveying the experiences of large number of federal states the world over observes "when a small rich unit is ranged against a larger poor unit, or of course, one or two large units are ranged against a number of poor units, two broad outcome are possible (1) either the small unit accepts the pressure from the large unit and assists it to achieve the higher national standards going in the small unit or else (2) the small unit will resist this pressure and seek the secede". 23

The above discussion leads to the conclusion that in a developing country like India, one cannot patiently wait for the "spread effects" or the "trickling down effects" to meet the "backwash effects" or "polarisation effects". Time is not a good physician to cure this problem. As Nevin points out, "policy can seldom allow its horizones to extend into infinity". 24

1.1 STATEMENT OF THE PROBLEM

The theory of public finance maintains that the market mechanism fails to provide social wants. This

necessitates the intervention of government in economic activity especially for bringing regional economic balance. Bringing the regional equitable development is theoretically found to be the responsibility of the Central Government in a federal state like India. This is one of the basic objectives of introducing public sector enterprises in India. From the above discussion, it is seen that removal of disparities in economic development among states has been one of the most important and explicitly stated objectives of Five Year Planning in India. In order to reduce the inter-state disparities among states, the Central Government has made larger investments in different states. But statistics shows that the amount invested in different states by Central Government seems to be uneven. The present study, therefore, attempts to assess how far the central sector investment has been effective in reducing these disparities.

1.3 OBJECTIVES OF THE STUDY

Following objectives are formulated for the study:

1. To examine the extent of regional imbalance in economic development in India, and to outline the policies adopted to reduce these imbalances.
2. To ascertain the temporal nature of variations in central sector investments across states.

3. To study the relationship between central sector investments and regional imbalances.

1.4 METHODOLOGY

The methodology of the present empirical investigation has been broadly outlined as follows:

This is a historical and evaluative study in nature. This study is largely based on the secondary data collected from various sources such as statistical reviews published by Centre for Monitoring Indian Economy (CMIE), Bombay, the Annual Survey of Industries (ASI), Central Statistical Organisation (CSO), National Council of Applied Economic Research (NCAER), Statistical Abstract published by Bureau of Economics and Statistics, Economic Reviews published by State Planning Boards of various State Governments; Reports of Finance Commissions, Planning Commissions, Reserve Bank of India Bulletins, Economic Surveys, published by Government of India, Five Year Plan Drafts etc. The unpublished reports and statements available in Government Offices,
individual research studies and those of autonomous research bodies giving the data over time are also considered in this study.

The present study covers the period of 19 years from 1970-71 to 1988-89. The study could not be extended to the earlier periods due to data constraints. Data were collected on current basis because of non-availability of appropriate deflator.

Data were analysed on quinquennial and decennial bases for the convenience of analysis and to make roughly coincide with the duration of the Five Year Plans.

For the purpose of the study, only the major 14 states are taken into consideration. Special category and newly created states are excluded from the study. The major states included in the study are Andhra Pradesh, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.

The criteria adopted for the purpose of including a particular state in the present study is that the
population of that particular state must exceed at least two per cent of the total population of the country. It is felt that this is a fairly reasonable criterion because population of a region is the only weight that is commonly applied to a particular regional problem in order to know the real magnitude of the problem at the national level. When this criteria is considered only 14 states in the country qualify for consideration and analysis.

These states are classified into developed states, semi-developed states, and less developed states on the basis of per capita income.

Taking \( X \pm 10 \) per cent as cut-off points, these 14 states are divided into three, and they are presented in Table 1.1.

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Category of region</th>
<th>States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Developed region</td>
<td>Gujarat, Haryana, Maharashtra and Punjab</td>
</tr>
<tr>
<td>2.</td>
<td>Semi-developed region</td>
<td>Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and West Bengal</td>
</tr>
<tr>
<td>3.</td>
<td>Less developed region</td>
<td>Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh</td>
</tr>
</tbody>
</table>

*\( X \) denotes All India average per capita income.
The developed region consists of four states, namely, Gujarat, Haryana, Maharashtra and Punjab in alphabetic order. These states have got a level of per capita income which is more than 10 per cent above the all India average per capita income.

The semi-developed regions composed of five states, namely, Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and West Bengal. These states are falling in a level of per capita income which is 10 per cent above or 10 per cent below the national average per capita income.

The less developed region encompasses five states, like Bihar, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh. These states have got a level of per capita income which is less than 10 per cent below the all India average per capita income.

To look into the extent of regional inequality among regions (states) indicators of economic and industrial development such as per capita income, per capita power consumption, per capita expenditure on health, statewise distribution of factories, statewise factory employment, statewise gross industrial output, statewise
value added by manufacturing sector, statewise literacy rate, statewise rate of urbanisation are taken into account. In order to examine the trend of changes in these indicators, compound growth rate over years is used.

Various methods are used to measure inequalities among regions such as Williamsons unweighted and weighted coefficients of variations, Hirschman-Herfindal (H.H) Index, Theil's Index, Gini Index etc. The most commonly used measures are Gini Index and Theil Index. Theil developed a measure based on the concept of entropy. This measure has a definite advantage over Gini Index because of its additive property. That is, when data is grouped into states/regions/occupations, it is possible to decompose the overall inequality into inequality between the groups and inequality within groups. This kind of decomposition can be helpful for policy formulation. Many researchers have used this measure in the field of social sciences.

It is, therefore, in the present study, Theil's Index is used to measure the inequality between regions and within regions. As states are of unequal size, it is necessary to eliminate the size effect by introducing some
scaling factor like population. For the convenience of analysis, only economic and industrial indicators are used to measure inequality among states. They are per capita power consumption, distribution of factories, factory employment, central investment gross industrial output, value added by manufacturing sector and state domestic product.

The total inequality in the aforesaid indicators among the states, as defined by Theil$^{25}$ is as follows:

\[
I(Y; X) = \sum_{i=1}^{n} Y_i \log \left( \frac{Y_i}{X_i} \right)
\]

where
\[
I(Y; X) = \sum_{g=1}^{G} \sum_{i \in R_g} Y_i \log \left( \frac{Y_i}{X_i} \right)
\]

The index will be equal to zero when there is perfect equality and it will take a positive value when there is inequality.

The states can be grouped into G regions $R_1, R_2, \ldots, R_G$; so that each state belongs to one and only one region. Then the above inequality can be written as follows:

\[
I(Y; X) = \sum_{g=1}^{G} \sum_{i \in R_g} Y_i \log \left( \frac{Y_i}{X_i} \right)
\]

Algebraically, this can be decomposed as follows:

\[ I(Y: X) = \sum_{g=1}^{G} \sum_{i \in \mathcal{R}_g} \pi_i \log \frac{P_i}{\pi_i} + \sum_{g=1}^{G} \sum_{i \in \mathcal{R}_g} Y_g \log \frac{Y_g}{X_g} \]  \hspace{1cm} (1.3)

Equation (1.3) gives the index of total inequality in each variable considered one at a time. The first part of equation (1.3) gives the index of "within inequality" and the second part of the equation (1.3) gives the index of "between inequality".

The index will be equal to zero when there is perfect equality and it will take a positive value when there is inequality.

In order to analyse the movements of the indices of inequality (total, between and within) over the years, we also have found the trend lines of each variable.

1.5 SCHEME OF THE STUDY

The study is organised under seven chapters. The first chapter covers the introduction, problem of the...
study, objectives of the study, methodology, limitations, significance and scheme of the study.

The second chapter presents the review of literature and regional development theories.

The study is largely based on ASI data which were published only upto 1958-59. The data were published on census bases. Upto 1959, they were published on census bases. After that the data published on the basis of census sector had included only large scale industries. From 1969 onwards data were published on factory sector where almost all factories were included. In the present study the data concerning factory sector published by ASI are only considered.

A profile of Central Government policies aimed at reducing the regional imbalances in India is outlined in the fourth chapter.

In the fifth chapter the temporal nature of central investment in central public enterprise in India is discussed.

The efficacy of the policies of Central Government vis-a-vis regional imbalances in India is analysed in the sixth chapter.

The last chapter presents the findings and suggestions for further reduction of inter-state economic disparities.
1.6 LIMITATIONS OF THE STUDY

The present study is, however, subjected to some limitations. The major limitation is the nature of data. Even though the period of study is from 1960-61, a detailed study is limited to the period from 1970-71 to 1988-89. The study is largely based on ASI data which were published only up to 1988-89. The data were published on various bases. Upto 1959, they were published on calendar year basis. After that the data published on the basis of census sector had included only large scale industries. From 1969 onwards data were published on factory sector where almost all factories were included. So in the present study the data concerning factory sector published by ASI are only considered.

The study covered only 14 states in India. Smaller states, Union Territories and special category states are not considered because of the following reasons. First is the non-availability of data for these states for all years. Second is the special nature of the economies of these states and the special nature of their problems, not all these economic, which necessitated abnormally large financial investments to these states.
Another limitation is that, due to data constraints and nature of allocation of investment funds, certain central public sector enterprises like Railways, Defence etc. are not included. As such due to the allocation of a lion's share of central investment in industrial sector, the present study gives emphasis only to the analysis of central investment in industrial sector.

1.7 SIGNIFICANCE OF THE STUDY

In countries with federal constitutions, it is the responsibility of the Central Government to provide solution to the perceived needs of the federating states. As is well known, the degree of financial dependence of the Indian states on the Central Government is much higher than that of the constituent units in most other federations. It is seen that there are disparities in the internal resource position of the states. The internal resource position of the low income group states was just half that of the high income group and two-third of that of the middle income states. Bihar's own resources were only a little more than a fourth that of Punjab. Such inter-state differences in own resource position have not been the result of the developed states. Reddy's study shows that the states have to depend upon the central investment.

that Bihar which had the lowest amount of own resources had made the highest tax efforts among the sixteen Indian States. 26

However, fiscal transfers alone may not be able to eliminate certain types of regional inequalities which are structural in character. Such inequalities can be removed only through long term economic policies, particularly investment policies. As the regional development needs may not always appeal to the investing private sector, large doses of public investments will have to come in. But the endowments of the different states vary considerably. Therefore, the poorest states which need more and more doses of investments, may not be in a position to mobilise the required resources. It implies that the state sector funds and natural resources are limited in less developed states. In such a context the government of India will have to step in with large investments in states. This brings to focus the need for central sector investment.

Since the removal of regional disparities was one of the prime objectives of national planning, it is natural that the states have to depend upon the central investment

for the realisation of its development potentialities. The Central Government has invested large amounts in heavy industries in different states in order to diverge the accumulation of funds. The aim of such investments is to reduce regional disparities in economic development of the country. But the evidence showed that the amount invested in different states seems to be uneven. It is seen that the richer states have received larger quantum of such investment vis-a-vis the richer states accentuating inequalities further.