Chapter 2

Review of Literature

2.1 Introduction

The impact of scale and extent of government activity on economic growth has been significant. It is a subject of great interest and controversy in every nation. Different countries have tried to examine impact of key fiscal variables like taxes, expenditure and deficits on performance of their economy. Tax policy is one of the most frequently used economic tools. By careful adoption of alternative policies; the government is able to exert significant influence on resource allocation decisions. It is a matter of controversy and there are no unanimous views among the economist regarding impact of various fiscal incentives on performance of industry as well as economy. The review of literature helped to identify objectives of the study by identifying gaps in existing research done on the subject and allows understanding of various tools used by other researchers. Literature in global and Indian context on different aspects of and issues related to the subject was undertaken which has been covered in present chapter. The review of literature has been classified under broad areas of fiscal policy, fiscal deficit, fiscal consolidation, fiscal incentives, fiscal policy and exchange rate, fiscal restructuring, fiscal transfer and reforms, MSMEs and fiscal incentives, SEZs and fiscal incentives, fiscal policy and Gujarat; and are extensively referred to get insight and find gaps in literature to decide objectives for the present study.

2.2 Fiscal Policy

Fiscal policy is concerned with raising government revenue and incurring of government expenditure. It affects tax rate, interest rates and government spending in an effort to control the economy. Main objectives of fiscal policy are development by effective mobilization of resources, efficient allocation of financial resources, reduction in inequalities of income and wealth, price stability and control of inflation, employment generation, capital formation and increasing national income.

2.2.1 Global Context

Since early 1990s countries around the world have significantly tried to improve their fiscal position. Below literature explains the forces behind this effort and challenges lie ahead.

Mbakile-Moloi and Christine Ega (2007) in their dissertation studied copycat theory for fiscal policy and analyzed the harmonizing effect of fiscal policy in the government’s policy making decisions. The basic motivation behind this thesis is that governments at all levels make their decisions by taking in to account what their neighbors are doing. The first objective of this study was to determine the presence of such policy mimicking among government expenditure and government revenue. The second objective was to test spatial interaction in government efficiency to determine if it is also influenced by neighboring countries. To study all these objectives, authors have applied fiscal copy cat theory. Panel data with two-stage OLS estimate, spatial analysis with contiguity weight matrix were applied for Sub-Saharan Africa (SSA) and Southern African Development Community (SADC) countries. The empirical result supports the copy cat behavior pertaining to taxation and government expenditure policies. The result also
supports that the countries copy their neighbor countries’ tax and expenditure policies but degree of mimicking is not same across all categories. There is a high coefficient or stronger mimicking for mobile taxes like corporate income tax than individual income tax in developing countries. The mimicking of taxes is stronger among SSA than in SADC. In the expenditure categories, more mimicking behavior is found for education, health care expenditure except SADC region.

Quazi M. Rahim (2005) in his study on “Effects of foreign aid on GDP growth and fiscal behavior: An econometric case study of Bangladesh” has estimated an aid-growth model and aid-fiscal model to quantify the effects of foreign aid on GDP growth and fiscal behavior in Bangladesh from year 1973 to 1999 period. This effect has been examined by applying neo classical growth model.

The aid growth model is based on the following specification.

$$GR_t = a + b_1 \text{Aid}_t - I + b_2 S_t + b_3 \text{CLF}_t + b_4 \text{MX}_t + b_5 M_2t + ut$$

Where

$GR =$ Real GDP Growth Rate  
$Aid =$ Foreign aid as a percentage of GDP  
$S =$ Gross domestic savings as a percentage of GDP  
$CLF =$ Increments in labor force  
$MX =$ Imports plus Exports as a percentage of GDP  
$M_2 =$ Money supply as a percentage of GDP  
$t =$ Time

Research indicates that aid has marginal effect on GDP growth; but when aid is disaggregated in to loans and grants, it is found that loans significantly raise GDP growth, while grants do not. The other estimated parameters shows that increased domestic savings and increased economic openness have also significantly raised GDP growth in Bangladesh; and financial liberalization had marginal effect on growth and labor force had insignificant effect on GDP growth.

Mehrotra Aaron N. and Peltonen A. Tuomas (2005) examined the link between socio economic development and fiscal policy. For their study, they studied the four countries Greece, Portugal, Ireland and Spain from year 1980-99 by regressing Socio-Economic Development Index (SEDI) to number of fiscal variables from expenditure and revenue side of government balance sheet. Authors studied the variables for the SEDI are air passenger carried, railway passenger kilometer, telephone main lines, GDP per unit of energy use, primary school enrollment, tertiary school enrollment, carbon dioxide emission, infant mortality rate etc. Their result says that the fiscal consolidation is beneficial for the medium term.

Sarabia and Anton Arturo (2005) have tried to analyze the net welfare effect of fiscal policy because as per the past experience fiscal policy which brings the higher growth may not necessarily bring the welfare because of possible countervailing effects and short level. The authors have tested the model for the Mexican Economy and applied on few tax instruments like corporate taxes, lump sum taxes etc. As consumption taxes are ignored in this model, it has been found that government expenditures are simply thrown away: they neither provide utility nor affect the productivity of the physical or human capital.
Turnovsky J. Stephen (2004) has analyzed the effect of fiscal policies in a non-scale growing economy with public and private capital. The author has characterized equilibrium dynamics and has been concerned with contrasting two types of government expenditure --- first is an expenditure on an investment good and second is expenditure on consumption good. These both have been tested under different modes of tax financing. The interesting outcomes of the research are that fiscal policy has a sustained impact on the growth rate for substantial period during the transition. Analysis also says that for either form of expenditure, lump-sum tax financing dominates consumption tax financing, which in turn dominates wage tax financing and finally capital tax financing. Moreover the analysis brings out trade off between private intertemporal welfare gains and the government’s long run fiscal balance. This is explained by the empirical work that long run welfare gains are mostly but not always accompanied by a deterioration in the long run government surplus and vice versa. The extent to which this occurs depends in part upon the actual fiscal mix relative to its social optimum. It may be possible to design fiscal policy that is welfare improving, while leaving the government’s long run fiscal balance unchanged.

Studies of fiscal adjustments in the Organization for European Cooperation and Development (OECD) suggest that the size and composition of fiscal policy matter for solving fiscal imbalances. Purfield Catriona (2003) empirically examined the fiscal stabilization in transition economies. He worked on a similar path like empirical work done by Antonio Afonso, Nickel Christiane and Rother C Philipp (2006) from year 1992 to 2002. The outcome of the work suggests that large scale expenditure based fiscal adjustments are more successful in addressing fiscal imbalances in transition economies. It also showed that larger and longer adjustment result in a durable reduction in the primary deficit. The analysis also suggests that expenditure policies especially cut in current expenditure are more durable. Adjustments that rely on revenue increases are not successful in putting fiscal policy on more sustainable path. The findings of this research are less clear on the relationship between fiscal policy and growth in transition economies. Moreover, the paper reveals that there is a little evidence of expansionary fiscal contractions in the transition economies in the 1990s; the converse is also true, fiscal contraction did not have significantly negative impact on growth. The other most remarkable outcome of this research is that the very few fiscal stimuli succeeded in boosting economic growth significantly above the average growth rate of 1990s.

It has been found that many times transition economies devolve fiscal authority to sub national governments at a time when it is also important to consolidate fiscal policy. The research says that it can be problematic for the economy without appropriate care. The central government’s ability to determine the level and structure of revenues, public spending and borrowing may well diminish when fiscal policy is devolved. The research by Drummond Paulo and Mansoor Ali (2003) focuses on how the centre can maintain its ability to conduct fiscal policy while devolving revenue, borrowing and spending powers to lower levels of governments. Authors have explored the fiscal management issues in four key areas. First is budget coordination mechanism at the macro level. Second is tax effort incentives and revenue sharing a mechanism, third is expenditure control and hard budget constraints and fourth is criteria and rules for borrowing. Further, their examination says that greater decentralization did not generally lead to increased macroeconomic risks in the form of recurring central government deficits, or to an ability to carry out fiscal consolidation programs. One outcome says that decentralization is associated with better fiscal outcomes for middle income countries with good governance. In general, it concludes that countries with good governance have successfully maintained fiscal control, despite a high degree of fiscal devolution and have used various incentives, rules and
coordination mechanism among levels of governments, while ensuring appropriate planning and monitoring of the local government’s financial situation.

Perotti Roberto (2002) studied the effect of fiscal policy on GDP, prices and interest rates on five OECD Countries (US, Canada, United Kingdom, West Germany and Australia) by using Structural Vector Auto Regression (SVAR) Method. The results of this empirical estimation say that the effect of fiscal policy is small on GDP (exception is that the effect can be larger only when multiplier is greater than 1). Also over a period of time, the effect of fiscal policy on GDP has been becoming weaker and weaker. Government spending can have positive effect on price only if price is elastic and government spending pattern impacts on real and nominal interest rates. Author found that the US is outlier in terms of fiscal shocks compared to other sample countries for the research.

Ardagna Silvia (2001) has used standard neo classical growth model and used average data of ten European countries from year 1965 to 1995 in the paper titled, “Fiscal Policy Composition, Public Debt and Economic Activity.” Author has derived following important conclusions from policy analysis. First finding is that unlike an increase in government purchase of final goods, an increase in public employment has a negative effect, not only on consumption, leisure; but also on capital stock, output and employment. Second important conclusion is that rise in transfers and labor and capital taxes have an unfavorable effect on the macro economy. Third interesting finding is that rise in tax rates on capital income have a smoother effect than increases in labor taxes. Fourth is the strongest outcome which says that cuts in public employment and transfers are more effective at reducing the primary deficit and public debt than increases in tax rate. Finally it says that fiscal adjustment implemented by cutting expenditure rather than increasing taxes increase household’s utility both during the transition and in the long run relative to their utility before fiscal correction program. The author also studied the effect of fiscal policy in a dynamic equilibrium model with competitive labor markets. The results shows that unlike an increase in government purchase of final goods, an increase in public employment can have a negative effect on the economy even when the increase is financed by lump sum taxes.

Cochrane John (2001) has analyzed the comparative statistics of fiscal theory- the effect of changing surpluses when the debt held constant and the effect of changing debt when surpluses held constant with long term debt in the research paper titled, “Long Term Debt and Optimal Policy in the Fiscal Theory of the Price Level.” Author studied the optimal debt and surplus policy in pursuit of stable inflation and found that long term debt can be useful when the present value of surpluses varies by more than surpluses themselves. It is because the long term debt allows the government to offset surplus shocks.

Fiscal expansion stimulates aggregate demand by inducing demand through firms and invokes new entry in the economy. So, to ensure the equilibrium in the imperfectly competitive market, government can promote their expenditure which can affect the market structure and monopoly power. Molana Hassan and Jhang Junxi (2001) have decomposed fiscal multiplier in to components that reflect distinct aspects of the policy effects in their paper titled, “Market Structure and Fiscal Policy Effectiveness.” With disregard to the role of the market imperfections, fiscal multiplier affects the role of market outcome. Authors have empirically proved that the outcome effect of the fiscal multiplier can very well be diverted by properly designing the market structure. Thus the market structure plays a crucial role in fiscal policy effectiveness with regard to both output/employment and welfare effects associated with fiscal expansion.
Alesina Alberto, Ardagna Silvia, Perotti Roberto and Schiantarelli Fabio (1999) show how a change in fiscal policy can affect private business investment and level of profit among OECD countries. The sample for their study includes 18 OECD countries such as Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Netherlands, Norway, Spain, Sweden, United States and United Kingdom for a period from 1980s to 1996. Their study reveals that the strongest effect comes from the changes in primary government spending and government wages. The empirical work suggests that the fiscal policy affects labor costs, profit and investment; and investment as a consequence influences growth.

Jha Shailesh K. (1999) tried to find out whether current distribution of income determines the evolution of future income distribution and economic growth through fiscal policy. Author has carried out empirical analysis of reduced form equation of endogenous model to address distributional issues. Cross country data suggests that fiscal policy plays an important role in linking initial income distribution to future economic growth and distribution of income. Time series data from India, Taipei and China for the years 1953-92 indicates that increasing tax ratio hinders economic growth and improves distribution of income. Further, he suggested that for low-income and developing economies policy should be designed in such a way that redistribution should be set appropriately in a manner that higher income groups are not discouraged to invest in order to achieve high growth rate of the economy. However, during this stage of development, a worsening distribution of income may incur.

Fatas Antonio and Mihov Ilian (1998) have tried to estimate the effects of fiscal policy on income and employment. They have compared all the responses with standard red business cycle model to shed light on the mechanism that determine the dynamic in a stochastic general equilibrium macroeconomic model. The empirical result proves that with increase in government expenditure income/output increases only if multiplier is greater than one. The interesting finding is that this increase is largely driven by increase in the private consumption. Investment does not react significantly to increases in government spending.

Alesina Alberto, Ardagna Silvia and Gali Jordi (1998) have examined the evidence of fiscal adjustment for OECD countries from year 1960 to 1997. Their finding focuses that the serious fiscal tightening increases demand. Moreover, when tax rate are reduced; wealth, consumption and investment rises. For that; policy makers must take care that the tightening of fiscal policy must be sizable and occur after a stress when budget is deteriorating and public debt are building up. They also found from the OECD experience that the fiscal consolidation based on tax cuts is short lived, and to make its impact long lasting it must be accompanied by cuts in public expenditure, transfers and government wages.

Kouassi Eugene (1996) has analyzed the effects of fiscal variables on inflation by using Aghevli-Khan Model to estimate the time required for a change in the consumer price index. The empirical work interprets that at the time of issue of inflation the decision makers would like to adjust the levels of the budget, but the research says that expenditures adjust more rapidly than revenues. Moreover, Kalman filter approach was used to estimate the predictability of speed of adjustment to inflation.

Rebelo (1991) experimented with different thirteen tax measures and conducted time series regression analysis of income tax revenue on GDP. By taking the initial real GDP per capita as a variable in the regressions, they found negative correlation between the ratios of income tax revenue to GDP.
Peitchinis G. Stephen (1990) has worked in the same direction as was done by Mohanty and other researchers. While working on the Canadian Public Policy the author observed that decrease in spending has been largely offset by increase in the interest payment on the public debt, which to a significant extent a result of gradual rise in the interest rates and employment of short term debt. Mere concern and address to fiscal deficit will not work, rather that it should be evaluated in terms of nature of spending (on revenue vs. capital expenditure) and financing of this expenditure. In first kind of expenditure, interest on debt will be paid out of tax revenue, while in the second type it will be paid out of imputed gain or return. According to the author, crowding out argument becomes pointless, when the deficit is examined from the perspective of capital spending by governments. It is not like that the private sector could not do certain expenditure because government took away from it. Moreover, the private sector that competes with the government sector for loanable funds is the sector which holds most of the government debt and also receives interest payment from the government. For example, in 1986-87, the Canadian government borrowed $31 billion dollar, but paid out interest of $28 billion dollar. The institutions that loaned $31 billion to the government by purchasing bonds and other securities were the same who received $28 billion in interest. Further, in the year 1986-87, when the amount borrowed by the government was taken into account, it was less than one fourth of the total funds borrowed by the all major non-financial borrowers.

2.2.2 Indian Context

The initial years of India’s planned development strategy were characterized by conservative fiscal policy. However from 1990s onwards, due to public debt and balance of payment crisis Indian government has made sound effort in this direction. Below is the literature of fiscal policy in Indian context.

Fiscal policy is an important instrument to ensure faster economic development. A sound tax policy results in economic development, promotes savings and encourages investment. Various fiscal incentives such as tax exemption, tax relief, export promotion, exemption from excise duty and others are provided by the government to encourage savings and investment. Palanichamy A. P. (2011), “Fiscal policy reforms in India-Overviews” has compared India’ tax structure with selected countries of the world and concluded that percentage share of tax revenue is 13 percent in India and it is very low compared to advanced countries like Sweden, France and others.

After independence, for first thirty years macroeconomic management in India was mainly concerned with managing price stability and managing the balance of payment and hence there was no problem to manage fiscal situation. Only from 1980s budgetary situation started causing worry. It has been observed that an aggressive focus on deficit reduction had adverse fallout for public spending on health and education in several states, mainly in poorer states. As per Amaresh Bagchi (2006) in his paper titled, “India’s fiscal management post liberalization: Impact on the social sector and federal fiscal relations” another stark fact of the fiscal situation is that faced with acute fiscal stress, the states have turned more and more to the center for funds to run their affairs. On top of this policy makers have opted for an escape route by getting the fiscal and revenue deficit target relaxed together.

To achieve the fiscal reform in India, buoyant growth is essential; and for that we require is all kind of publicly funded social and physical infrastructure capital in good quality and quantity. Rajaraman Indira (2003) in her working paper on “Fiscal Developments and outlook in India” has analyzed the reasons behind fiscal deficits. As per the author, there are two strands to the
fiscal imbalance path in India. The first strand is that interest rates on public debt started rising sharply in the eighties to a peak average of 10.68 percent in FY 2000. The paper says that it was political economy pressures which fueled the issue. Even though once again, interest rates started declining after the re-routing of small savings that began in FY2000, the interest bill is still over 6 percent of GDP. The second strand is the path of interest excluded primary deficit indicators. This worsened sharply in FY 98, with the real wage hike introduced that year for government employees and pensioners which raised the consolidated salary bill by 1.5 percent of GDP. Author has performed econometric analysis for consolidated imbalance across all levels of government over 50 year period from 1951 to 2001. The research concludes that there is some sensitivity of non-interest revenue expenditure to the average interest rate on government debt; and prospects for expenditure reform beyond the interest rate reform already achieved are limited. Moreover, the government effort is not high by international standards as it is heavily skewed towards lower skill levels in composition.

The central government has realized that there is an urgent need to incentivize the transfer system, and therefore has introduced a number of measures to incentivize the fiscal arrangement. As per the recommendation of the eleventh finance commission, the government has introduced the Medium Term Fiscal Restructuring Policy (MTFRP) in which part of the central grants to the states is given on the basis of their fiscal performance. Rao Govinda M. (2003) has addressed this in the paper titled, “Incentivizing fiscal transfers in the Indian federation.” As per the author the functions of schemes requires states to fulfill different targets and as a result of this it has resulted in to the segmented incentivization of states fiscal systems. This target related federal transfer system does not guarantee any improvement in the state’s fiscal performance. As a remedy of this problem author suggests to address the basic reasons for past deterioration. As per the analysis given in the paper the most important reason for the deterioration in state finance is planning process itself. The continued emphasis on the large plans and artificial distinction between plan and non plan schemes provides large resources to that states only even though they do not have adequate resources for that. Other important reason is that planning commission’s role in giving current transfers has undermined the role of finance commission. Other noteworthy reason is the low productivity of the expenditures.

Karnik Ajit (2002) has analyzed the RBI’s Currency and Finance Reports 2000-2001 in his research titled, “Note on fiscal policy and growth”. The report has analyzed various fiscal policy instruments like direct taxes, indirect taxes, and government’s consumption expenditure, public sector investment in manufacturing and public sector investment in infrastructure. The report provides some of very interesting results. (A) The effect of government investment in manufacturing on private investment is negative. (B) The impact of public sector investment in infrastructure seems to be positive for private sector. These results were provided with the help of econometrics. Ajit Karnik has addressed the ‘gaps’ of these econometrics results in his study. Author’s finding says that the government expenditure will be beneficial from the point of view of the current slow down as well as from a longer term perspective, only if directed towards infrastructure. Moreover, while analyzing fiscal parameters for selected states, it has been found that situation of state finances is worsening and alarming. The note indicates that the generation of deficit is likely to retard growth and can be hostile for growth. So, earmarking of revenues must be considered for specific purposes like infrastructure development etc. However, it has been observed that the earmarking has been unnecessarily criticized and acts as a constraint in optimal fiscal policy and very few governments have desirable quality and institutional mechanism. Allocation of taxes for socially desirable expenditure such as investment in physical and social infrastructure would be more pertinent and long lasting.
Guhan S. (1986) has analyzed the fiscal performance of the centre and states from 1970s to 1985 and has thoroughly studied the budget of 1986-87 as it was the first publication in seventh plan and long term fiscal policy (LTFP). The plan and the policy outline the desirable direction in which fiscal policy ought to evolve. It has been found that from the year 1980s a combination of factors have resulted in severe, persistence and growing revenue deficit in the centre; and surplus with the states have rapidly worn out. Moreover, finding says that the tax revenues have not been responsive to GNP growth as continued incentives/concessions have resulted in to diminishing yield. On the other hand, the financial performance of the Public Sector enterprises (PSEs), especially of the State Electricity Board continues to be very poor; they drain the exchequer in terms of loan and subsidies and contribute little by way of non tax revenue. The author has analyzed the plan with quantitative and qualitative framework and has observed that there is already a significant slippage with reference to the projections in the plan and the LTFP. As per him, the problem is not lack of sound policy but lack of success or seriousness in tackling the political and administrative obstacles in its implementation.

Gupta Anand P. (1976) has opined that public policy can play an important role in the growth of technologies which favour a pro-capital factor mix in his research paper titled, “How Fiscal Policy Can Help Employment Generation.” As per the paper tax policy continues to provide a number of incentives to stimulate industrial development in the country. The use of tax incentives to encourage the industrial development decides the entry and growth of new and existing domestic or foreign industries. As per the author these incentives has been designed in such as way that not only they lack selectivity but the tax benefit associated with them varies in proportion to the amount of investment in capital assets. Also, while calculating these benefits no consideration is given to the employment opportunities created or likely to be created. For these problems author has suggested that fiscal incentives for the industry and/or intended tax benefits can be defined in terms of a specified percentage of its profits before tax rather than in terms of a specified percentage of the capital employed. By this step, industries will reduce capital investment and will become more labor intensive rather than capital intensive. Other measures suggested by the authors to increase employment is grant of tax relief related to the number of workers employed or to the amount of wages, grant of tax rebate related to the amount of tax payable in respect of income derived from a labor-oriented industrial unit newly set up after a specified date. Another way to increase employment is to provide fiscal incentive to labor intensive output mix and penalizing those industries which produce capital intensive output.

2.3 Fiscal Deficit

There are two views about the impact of deficit and fiscal policy on the wealth of the nation. One group of economist believes that deficit increases real interest rate which in short runs results in less consumption, less investment and more savings i.e. overall negative wealth effect. But, in the long run this effect on saving will be reverted by a fall in output. On the other hand, other group of economist believes that in the long run public deficit reduces domestic capital stock, increase foreign debt and thus increases burden for future generation. And there is also a recent opinion among the economists that public deficit do not matter at all and in the long run as the effect is offset. Relevant empirical work in this area throws light on it.
2.3.1 Global Context

The global financial crisis has tested the fiscal policy framework and it responded with countercyclical measures including tax cuts and increase in expenditures. Below is the review of literatures of fiscal deficit in global context.

Lopez E Ramon, Thomas Vinod, and Yan Wing (2010) have considered how fiscal policy affects the key dimension of quality and have tested it on three parameters. First is cross country analysis. Second is country study which includes state level analysis for India and third is project level analysis (to study the composition of fiscal policy). As per the authors, there are following reasons that such focus is crucial. The sustainability of development result is affected by nature of growth. Fiscal policy has an especially special effect on quality aspect of growth such as inequality and environmental sustainability. The findings of the study are as follows: Government spending on public goods is associated with faster economic growth as well as with greater reduction in poverty. One striking finding is that government expenditure on private goods and on subsidies to firms that distort markets as opposed to public goods are associated with weaker economic growth and greater structural inequality. Further, relocating public expenditure from private goods to public goods (even while keeping the total expenditure constant) is associated with higher and better economic growth. Government spending on public goods is positively and significantly related to environmental quality. Nature of tax policies also affects the economic growth.

Cermeno Rodolfo, Roth Bernando, and Villagomez, Alejandro F. (2008) have empirically investigated the impact of fiscal policy on domestic and private savings in Mexico for a period of 1980 to 2006 (by taking quarterly data) by applying Structural Vector Auto Regression Model (SVAR). The variables included in the analysis are the adjusted primary structural surplus as a percentage of potential GDP, the output gap, and adjusted national and private saving as a percentage of actual real GDP. The empirical finding says that the fiscal policy has an important effect on national savings, some negative impact on private savings over short horizons, but none over the longer term and a negative effect on the output gap.

Wang Zijun (2005) in his paper “A note on Deficit, Implicit Debt and Interest Rates” analyzed the long standing issue of relationship between government borrowings and interest rates using Vector Auto Regression (VAR) Model using an annual data from 1959 to 2002 of Treasury bill rate, federal government spending, the national income and product (NIPA) measures of the federal government deficit, money supply (M2) and Consumer Price Index (CPI). The key findings of this research are as follows: Deficit does have a significant impact on ex-post real interest rate in long run but not in the short run. The implicit debt has some explanatory power in ex-ante real interest rate variation over both short and long run horizons, and the implicit debt has smaller effect than the regular federal deficit.

A research by Hogan Vincent (2004) explains the very interesting Expansionary Fiscal Contraction Hypothesis (EFC) to explain the performance of OECD economics during fiscal crisis. As per the earlier conservative view of Keynes, any reduction in budget deficit leads to a decline in the economic activity. But, this literature suggests that fiscal contraction may be expansionary, especially during time of crisis. By collecting the data for 18 OECD economies

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15 Potential GDP is what an economy can produce in a given period of time without causing destabilizing inflationary pressure.
from period 1970 to 1999, author tried to apply EFC hypothesis. The variables were real private and government consumption, government expenditure, government surplus, real GDP, national debt, GDP deflator, business fixed investment, long term interest rate, disposable income, net taxes etc. The findings of the research say that the estimated effects of fiscal variables are sensitive to the estimation method used. Moreover, size of any EFC effect is relatively small. There is some weak evidence in favor of EFC occurring during times of financial crisis. Thus, fiscal contraction may have non-Keynesian effects, but may not be literally expansionary.

An Empirical research made by George Evdoridis (2000) briefly indicates the mechanics of dynamic equilibrium and the potentially positive impact of budget deficits in economic growth. As per analysis of cross sectional data of four countries (Germany, France, Italy, Portugal), author concludes that normal deficits are necessary condition for high growth rates. As per this empirical work, when sector producing capital goods (which is the main growth promoting source in the economy) can not realize money surplus, a steady high growth rate cannot be sustained and this situation may lead to ‘stagflation trap’ also. Thus, an unbalanced budget with more force on expenditure with some monetary easing is a prerequisite condition for the higher growth rate.

George Evdoridis has used the condition I+X+G = S+M+T

Where, I= Investment, X=Export, G= Government Expenditure, S=Savings, M= Import and T= Taxation (public receipts)

As per his finding, to restore the growth, left hand side must be higher than right hand side. Two variables namely budget deficit and corporate profits in the above four mentioned countries show positive relationships.

Martin M. Gael (2000) in his paper has reexamined the sustainability of fiscal deficit by using new approach based on co-integration model with multiple endogenous breaks. The author has taken the reference from the earlier work done by Quintos (1995); and has analyzed the fiscal variables like real revenues of the US government, real expenditure inclusive of interest paid on debt from the period 1947-1992. The results indicate that the relationship between real revenue and real expenditure from 1947 to 1992 period is co integrating one with three shifts occurring in the first quarter of 1975, 1985 and 1987 respectively.

Quintos E Carmela (1995) has tested whether US fiscal policies is sustainable or not by intertemporal budget constraint method; and whether there is a structural shift in fiscal policy. Quintos has analyzed above objectives by Augmented Dickey Fuller Test (ADF), Modified t test, rank method (for structural shift) to the US data for a period of 1947 to 1992 and worked with the equation.

\[ \text{rr}_t = \mu h_t + b g'_t + \varepsilon_t \]

Where

\text{rr} and \text{g'} denote real revenues and real government expenditures inclusive of interest paid on debt, respectively.

The function \( h_t \) is a polynomial of order \( p \) in time and characterizes order of deterministic trend in the regression.
The findings of Quintos say that even though inter temporal budget constraint is sufficient, the government may have difficulty in financing of deficit as spending continually exceeds revenue earned. Using rank data to find out structural shift, it was found that there was shift in the deficit policy in early 1980s. The overall finding was that the deficit was sustainable.

Fardmanesh Mohsen (1991) has empirically assessed relative desirability of alternative reducing tax increases and expenditure cuts in terms of their individual impact on economic growth, using cross sectional data for a sample of 21 developed countries for the period 1972-1981. In a model developed by author, all fiscal variables like total tax revenue, total expenditure, net non tax revenue, income taxes, property taxes, foreign taxes, taxes on goods and services etc are defined as a percentage of GDP in order to make the data comparable over time and across countries. The result suggests that deficits are as bad as taxes for growth, while on the other hand deficit reducing expenditure cuts are never bad for growth.

Finn J. Thomas (1988) has addressed two different ways of measuring fiscal deficit one is by the nominal value of debt with deficit (deficit by method 1); and the other is by real value of debt with deficit (deficit by method 2). According to the author’s analysis, deficit estimation by method 1, the budget was in deficit only in nine years out of thirty five years (1951-1985), while by method 2; Budget was in deficit for twenty eight years out of thirty five years. The research says that because of the faulty method deficit is underestimated.

Tanzi Veto (1985) has attempted to address the unending question that whether the fiscal deficit is the root cause for increased interest rate in the United States; and historically high deficit experienced in U.S. has been a main factor or not in explaining extra ordinarily real interest rate. For that, the author has performed regression analysis with the test of $R^2$ and DW statistics for a period of 1960 to 1984. The impact of various fiscal and non fiscal variables like Livingston Index of expected inflation, federal unified budget fiscal deficit as a share of gross national product (GNP), federal cyclicality adjusted fiscal deficit as a share of trend GNP, ratio of GNP to public debt, and ratio of actual GNP to potential GNP. Here all the variables were taken as independent and their impact was measured on interest rate.

$$R_t = a + b\pi_t + cG_t + dDU_t$$
$$R_t = a + b\pi_t + cG_t + dDL,$$
$$R_t = a + b\pi_t + cG_t + dDebt,$$
$$R_t = a + b\pi_t + cG_t + dDL_t + eDebt,$$

It was found that interest rate was indeed positively affected by fiscal deficit and also by level of debt. The empirical result proved that if the US fiscal deficit were lower, the interest rate would have been lower (other things being equal). The paper also showed that the balanced budget would have reduced interest rate on one-year US treasury bills. Moreover, a reduction in level of fiscal deficit in order of one percent of GNP would reduce interest rate by about 50 basis points.

Richard J. Cebula (1978)) did the empirical analysis of “the crowding effect” of fiscal policy in the United States and Canada from the year 1949 to 1976 (28 years) by using Ordinary Least Square (OLS) and two-stage Ordinary Least Square (2-OLS) method. He took three important variables in his study. Firstly ‘I’ as a gross private investment in non residential structure and producers’ durable equipment; secondly ‘U;’ as capacity utilization in the manufacturing sector
at time \( t \); and thirdly ‘\( D_t \)’ as a change in federal government’s outstanding debt. Where, I (investment) was independent and remaining were dependent variables with ‘a’ as a constant. It was found that for both the United States and Canada fiscal deficit ‘crowds out’ private investment. In addition, the paper also showed that it leads to long term inflation.

2.3.2. Indian Context

When the deficit and debt situation threatened to go out of control in the early 2000s, fiscal deficit is more rigorously addressed at central and state level. Below is the review of literature of fiscal deficit in Indian context.

The impact of debt and fiscal deficit on growth and interest rates also arises from their effect on saving and investments; and are critical in any examination of sustainability of debt and deficit. It has been found from other countries that large structural primary deficits and interest payments relative to GDP have had an adverse effect on growth. C. Rangrajan and Shrivastav D. K. (2005) in their papers “Fiscal Deficits and Government Debt in India: Implications for growth and stabilization” opines that debt to GDP ratio should be analyzed with fiscal deficit to GDP. The paper concludes the following observations from a period of 1953-2002. Firstly the impact of fiscal deficit on investment arises both from its impact on private investment and government investment. If fiscal deficit puts pressure on interest rates and if private investment is sensitive to interest rates, private investment can be adversely affected. Secondly revenue deficit results in to reduced government savings, which may not be fully offset by a corresponding rise in the private savings, leading to a fall in the overall saving rate. Thirdly empirical test indicates that government capital expenditure do respond negatively to the interest payments and positively to revenue receipts. If interest payments rise faster than revenue receipts, government capital expenditure falls, and private investment responds negatively to a rise in expected interest rates. Due to this, in 90s and beyond, government capital expenditure relative to GDP fell not only because interest payments relative to GDP increased but also because ratio of revenue receipts to GDP fell.

Dholakia Ravindra H; Karan Navendu (2005) have addressed differences in the definition of debt used by different bodies like the state governments, Reserve Bank of India, Office of the Comptroller and Auditor General of India and Finance Commission. The other issue is that none of the definition given by the above bodies satisfy the criterion that fiscal deficit in a given year should equal the sum of increase in debt and monetization. The paper discuss basic criterion to derive a theoretically consistent and appropriate definition of debt. After deriving the definition of debt, it was applied to 18 non-special category states and 10 special category states for a period of 1989-90 to 2003-04 and effective interest rate was obtained for these states. The paper has found that non-special category states have a significantly greater probability of fiscal responsibility than the special category states.

Rajan Goyal (2004) investigated the limited issue of interest rate and fiscal deficit, without explicitly going into aspects of private investment and crowding in /crowding out effect. Author has measured the fiscal gap by using vector auto regression (VAR) model in terms of central government’s gross fiscal deficit by ascertaining relationship between interest rate and fiscal gap. The outcome of the paper indicates that there is a two-way causality between ex-ante long term real interest rate and fiscal deficit; and there is no relationship between reserve money and fiscal deficit. The overall result indicates that even though rising deficit rate raises interest rate, the
likely crowding out effect of private investment can be watered down by improving liquidity by accompanying monetary policy.

Moorthy Vivek (2004)’s paper on primary deficit and debt level provides an insight regarding failure of the fiscal consolidation program. By using the Domar model, author has analyzed that the fundamental problem is worsening primary deficit and not revenue deficit and debt level. It stated that the rising debt ratio is due to unfavorable interest rate dynamics and also due to previous rise in the primary deficit.

Goyal Rajan, Khundrakpam J K and Ray Parth (2004) in their research paper titled, “Is India’s public finance unsustainable? Or are the claims exaggerated?” have assessed the Indian fiscal trends by using inter temporal budget constraint method for the state and central government together combine and separately. Authors have used Gregory and Hansen co-integration test with structural breaks. The research reveals that central and state public finance is unsustainable at individual level but weakly sustainable at combined level. It is because at the combined level the gap between revenue and expenditure becomes narrower as it is netted out.

Chakraborty S. Lekha (2002) has examined the causality between the fiscal deficit and ex-ante real rate of interest in the deregulated financial regime of India by using Hsiao’ asymmetric vector auto regressive model and Augmented Dickey Fuller test.

\[ Y_t = \alpha + \Psi (L) Y_t + \mu_t \]

Where

- \( Y_t \) is vector of model variables
- \( \alpha \) is vector of constants
- \( \mu_t \) is vector of white noise error terms
- \( \Psi (L) \) is vector of polynomials in the lag operator, L.

The conclusion of this empirical work is that deficit does not lead to rise in the interest rate. This is contradictory compared to earlier research presented by Veto Tanzi.

The fiscal deficit of the centre on one hand and the States and UTs on the other hand were close to each other until 1970s. Fiscal federalism in India has kept state deficits in check but the centre must improve its own fiscal discipline. An article by Lahiri K Ashok (2000) titled, “Sub-National Public Finance in India” discusses budget constraint on states, relative deficits on centre and states, issues of expenditure prioritization and state tax issues. The article reveals that in economic terms apart from the area of tax harmonization and tax reforms, the states do not appear to have fared badly. Both revenue and fiscal deficit of states have been smaller than those of the centre. The reason behind achievement of fiscal prudence by the states in the past is partly due to hard budget constraint imposed on them. As per the author governments are under fiscal stress because of increasing interest burden from debt employed in the past and mounting wage bills. Rapid rise in interest and wage payments are crowding out capital and other developmental expenditures. There is a need to introduce fiscal correction in the area of subsidy as it does not generate much positive externalities. Author strongly recommends moving away from the ‘gap filling’ approach in fiscal devolution and design stronger incentives for states to mobilize additional resources, reprioritize expenditure and reduce deficits.
Empirical Research made by EPW Research Foundation (1999) reports that it is not size of the fiscal deficit that matters but most concerning is where the fund is distributed (i.e. planned and capital expenditure versus revenue expenditure) and the financing pattern (i.e. small savings, PFs versus sizable market borrowings). It also reports that the major reason behind mounting revenue deficit is growing non-plan expenditure.

As it is evident from above resources that rising and prolonged fiscal deficits adversely affects growth, macroeconomic balance, current account of the country etc. Mohanty M. S. (1997) has worked for the same for a period 1991-1996 by addressing issue of fiscal sustainability. He discussed broad issue about level of debt, with respective rate of interest, corresponding inflation rate and level of fiscal deficit. He opines that in an open economy, the macro economic impact of deficit does not get restricted to domestic debt burden, interest rate and inflation alone but also impinge on the external balance of the economy, where the impacts are often immediate and large. The research says that the macro economic reform has resulted in to a great integration between domestic and international financial markets and has strengthened the role of interest rate and exchange rate mechanism. Thus, even for viability of the external sector, fiscal policy indeed acts as a considerable tool.

D. Subbarao, Gulati I. S., and Mody R. J. (1994) discussed different methods of calculating fiscal deficit. D. Subbarao, in his research paper on “Calculating fiscal deficit” gave the formula Fiscal Deficit = [Total Expenditure (Revenue and Capital)] – [Total Revenue Receipts + Non Debt creating capital receipts]. As per the author, the formula provides automatically netting out recoveries of past loans from fresh loans advanced during the year. He also pointed out that the deficit financing (for e.g. monetized deficit may bring inflation; relying on external finance may bring undue pressure on the economy as well as exchange rate fluctuation and political vulnerability) should be addressed carefully as the consequences of its financing are different and may affect the economy adversely. While working further in the area of calculating fiscal deficit, R. J. Mody noted that no item on receipts of capital account should be included in calculating fiscal deficit. He opined that since fiscal deficit is the excess of total government expenditure, no item on receipt of capital account should be allowed. Further, he said that the concept of fiscal deficit calculation should not be blindly borrowed from the U.S. government as U S government is only borrower and not a lender to some significant extent, while Indian government being a consumer as well as investor, is also a financial intermediary engaged in lending and borrowing. The author also gave the concept of gross and net fiscal deficit. Thus, D. Subbarao, R.J. Mody, and Gulati I. S. have addressed same issue and stated that it is not that crucial whether fiscal deficit is higher or lower, but what is important is the nature of government’s receipt that finances its expenditure. Gulati I.S. has further agreed upon D. Subbarao’s view of financing government expenditure. By agreeing with the Mody’s suggestion Gulati opined that the fiscal deficit should be defined in terms of net government’s financial liability rather than in a static way.

Gupta Anand P. (1993) has addressed major issues of measuring deficit in India. Having examined different aspects of measuring deficits from CSO, MoF, RBI, GOI Accounts, author has given his own estimation. Author has estimated the deficit of India’s public sector in three steps. First is to consolidate the capital finance accounts of Railway, Communications, Administrative Departments, non financial public enterprises etc. This step gives an idea of unadjusted deficit of general government and public sector enterprises. In a second step, author considers issue relating to non-departmental financial public enterprises’ deficit and came up with what is called ‘unadjusted public sector deficit’. In a third step author has made appropriate
adjustments to take care of some CSO’s data weaknesses and comes up with India’s public sector deficit. As per the author, the major advantage of such a measure is that it eliminates all possible incentives to reduce a given deficit with small or no fiscal correction. It suggests that India’s public sector deficit may be actually larger than that of GOI’s estimate.

Buiter H. Willem and Patel Urjit R. (1992) have tried to study the solvency of the public sector and eventual monetization and inflation from the period 1971-72 to 1988-89 in their paper titled “Debt, deficits and inflation: an application to the public finances of India.” As per the authors the Indian debt crisis is ‘home-made’. As per the authors there are four concerns for rising public debt. The first reason is financial crowding out. Second one is tax smoothing. The third and most important reason is eventual monetization of persistent deficits which results in to inflationary situation. The fourth is the possibility of bankruptcy of the exchequer. The statistical solvency test and estimated demand for base money function suggests that continuation of recent pattern of behavior will eventually threaten the solvency of the government and an alternative of using inflation tax reduce the budgetary gap is limited option.

2.4 Fiscal Consolidation

Fiscal consolidation is a set of measures designed to reduce government deficits and accumulation of debt. It has a long term benefits but its success depends on how it is designed and implemented.

2.4.1 Global Context

The below literature shows the various fiscal consolidation program carried out by foreign.

Antonio Afonso, Nickel Christiane and Rother C. Phillip (2006) have studied fiscal consolidation in Central and Eastern European countries and have found out what determines the probability of their success. As per the authors’ opinion consolidation process acts as substantive improvements in fiscal balances adjusting for the impact of cyclical effects. They have analyzed the fiscal consolidation program from 1991 to 2003 by applying Logit model. The empirical analysis shows that the expenditure based consolidation programs are more successful in central and eastern European countries than revenue based program.

Hagen Von Jurgen and Strauch Rolf R. (2001) have extended fiscal consolidation to the economic condition in their research paper titled “Fiscal consolidations: Quality, Economic Conditions and Success.” As per the authors, for the success of fiscal consolidation cyclical position of the domestic and world market and the initial debt level matters for a given country’s fiscal consolidation program. An empirical observation of the OECD’s fiscal variables indicates that large output gap decreases the chances of fiscal consolidation process being successful. Also for the better results, fiscal consolidation program must be accompanied with monetary policy stance. It also concludes that stance of fiscal policy in other OECD countries does not affect the probability of consolidation being successful. Finally, economic condition influences choice between revenue and expenditure based consolidation but the result suggests that the expenditure based fiscal consolidation is more successful in weak economy.

A research paper titled, “An empirical analysis of fiscal adjustment,” by McDermott John and Wescott Robert F. (1996) examines the interplay between fiscal adjustment and economic performance of the industrial countries over the period 1970 to 1995. The study has covered fiscal expansion and fiscal consolidation experience of the industrial economies and finds that at
least for the medium term fiscal consolidation program does not cause on the economic slowdown. Authors have also found that fiscal consolidation activated through expenditure side rather than tax based is more effective to reduce the public debt ratio. The paper has analyzed fiscal consolidation program of 74 economies and concludes that tight fiscal consolidation program does not need to cause recession. Tight fiscal consolidation program may have somewhat depressing economic effect in the short run and it may take time to result in to positive effect.

2.4.2 Indian Context

India is at the crucial stage of fiscal consolidation program. Below is the experts’ empirical outcome for fiscal consolidation program.

Mundle Sudipto, Bhanumurthy N. R. and Das Surjit (2010) in their working paper on “Fiscal Consolidation with High Growth: A Policy Simulation Model for India” presents fiscal consolidation program from 2000-01 to 2008-09 for India that enables to examine the macroeconomic implications of alternative fiscal strategies, given certain assumptions about other macro policy choices and relevant exogenous factors. The exercise shows that it is possible to have fiscal consolidation while at the same time maintaining high GDP growth rate. The mechanism of the model is to gradually reduce revenue deficit to zero by 2014-15 and at same time allowing combined deficit at a level of 6 percent of GDP. This can provide enough room for significant amount of government expenditure; which in turn may increase direct and indirect investment by resulting in to high GDP growth. This exercise has tested the robustness of this strategy under different scenarios of high and low growth of the economy.

Heller Peter (2004) in the research titled “India: Today’s fiscal policy imperatives seen in the context of longer term challenges and risks” presents the reason why India must pursue a course of fiscal consolidation. The reason to pursue fiscal consolidation as per the author is that in the coming period India needs to be prepared to confront with political, social, environmental, demographic, economical, and other global forces. It is because continuation of current fiscal policies in terms of both fiscal deficit and composition of government expenditure would put India on an unsustainable course in terms to continue current growth and addressing future challenges. As per the paper India must take following agenda to raise its real growth rate to the targeted level. These agenda are to rationalize the subsidies given to food and fertilizer sector, losses with respect to the state electricity board, water and transportation need to be eliminated. To realize the potential for a higher real growth rate, there is need to spend on physical infrastructure like water, road, telecommunication etc. Also, to mobilize the tax revenue there is a need to broaden the tax base. For that there is a need to reduce tax for trade and services, while agriculture and urban property should be taxed. As per the author there is a need to further open up the economy for foreign direct investment and liberalization of the capital market to increase the potential gain in the economy.

Fiscal consolidation area has been addressed by many experts from time to time. Raghvendra Jha (2003) has tried to address the issue on two bases is that fiscal consolidation should focus on tax reform or target expenditure cuts. The public expenditure components of India are substantially lower than that of developed and developing countries of the world as assessed by the international standard. Therefore, further cut in these expenditures will be counterproductive. Along with enlarging tax base, policy makers can make a serious attempt by extending it to the
service sector and rationalizing indirect tax structure. It is author’s clear view that frequent changes in tax rate, exemption policy and debt policy adversely affects the revenue targets.

Fiscal Deficit merely measures the volume of borrowings by the government during the year, but does not reflect the extent of imbalance. Rao Govinda M. and Amar Nath H. K. (2000) in their research paper titled, “Fiscal Correction: Illusion and Reality” have opined that fiscal policy and the policy to deal with this is on wrong track. The crisis of 90s, initiated reforms in a right direction, but when crisis was over, rather than targeting fiscal consolidation, the attempt in successive budgets have been to create the illusion in fiscal adjustment rather than actually achieving it. The government has been concealing deterioration in the fiscal balance by placing emphasis on the fiscal deficit rather than more meaningful and concrete measures and also frequently changing its definition and method of calculation. Authors have empirically proved that on a comparable basis fiscal deficit reduction has been marginal, while the existing fiscal indicators have shown significant deterioration.

2.5 Fiscal Incentives

Fiscal incentive constitutes policies which are focused on the cost reductions and improvement of the relative competitiveness in a given market. It is in the form of capital subsidy, interest rate subsidy, backward area subsidy, investment subsidy for the establishment of new units, rehabilitation subsidy, excise duty exemption, sales tax rebate, tax exemption for specified years etc. The choice between tax incentives and expenditure subsidies involves more than economic considerations. It is important to note that both tax incentives and expenditure subsidies involve an expenditure of money by the government. Subsidies result in the direct expenditure of the funds by the government. Tax incentives result in a reduction in revenue received through the tax system. A thorough literature review both in global and Indian context throws light on it.

2.5.1 Global Context

Review of literature for fiscal incentives in global context shows tradeoff between tax incentives and subsidies.

Russo Benjamin (2004) in a paper titled “A cost Benefit Analysis of R and D Tax Incentives” has tested with Computable General Equilibrium (CGE) model to measure and rank tax incentives by their effect on research effort; and measured welfare effects. The Investment Tax Credit (ITC) is also examined in this paper. Cost effectiveness is measured as a tax incentive elasticity of R and D spending. But there is no clear and direct relationship between cost effectiveness, research effort and economic welfare. Because tax incentives may increase R and D expenditure but not research effort if labor supply is inelastic as higher spending can dissipate in higher wages. Outcomes came out from this study are as follows: Incremental and Comprehensive Tax credit generates relatively large increases in research effort and welfare. For downstream users of innovative inputs, lower corporate tax rates and ITC rank second and third. For upstream producers of innovative goods, ITCs are not much effective. Incremental R and D credits dominate comprehensive credits.

Davis S. Jon and Swenson W. Charles (1993) (“Experimental Evidence on Tax Incentives and the Demand for Capital Investments”) have used laboratory market experiment to overcome from the limitation of the inconclusive econometric evidence regarding the effect of tax incentives on capital investment; thereby providing a controlled empirical test of neoclassical prediction. The research question addressed by them was whether capital investment increases
when depreciation or investment credit is allowed by the tax system result in more rapid
deduction than true economic depreciation. This experiment was conducted in six separate
sessions representing three classes of economic agents. The economic agents were namely factor
sellers, output producers and output buyers. For this, six factor sellers were initially endowed
with factor inputs (three sellers each of capital and labor) that were sold to four producers who
were initially endowed with cash. By using these factor inputs (capital and labor), producers
produced the products and sold to three buyers. (Buyers were also endowed with cash). Cobb-
Douglas Production Function $F(x_1, x_2) = A(x_1, x_2) \cdot \xi$ was used with pre-test value of $\xi (0.04)$
was used. The result of their experiment did not support the neoclassical prediction that
depreciable asset investment will increase in response to accelerated tax depreciation or
investment tax credits. As per the researcher it happened because demand was irresponsible to
tax incentives because the prices of depreciable assets were bid up. It means tax benefits to some
extent were captured by factor suppliers.

Woodside Ken (1979) has examined and compared the political advantages for the Canadian
government of using tax incentives and subsidies as policy instruments to assist business in
paper on “Tax Incentives Vs Subsidies: Political Considerations in Governmental Choice”. The
author has found the following advantages for the government for tax incentives over subsidies.
When critics attack ‘government’s spending’ their attention tends to focus on the existing
subsidy program but does not include the revenue lost through the use of tax incentives. Tax
incentives are much less intrusive than subsidies. It has been found that subsidies often involve
more direct interference on part of government in to the action of corporate. As tax incentives
are of more value to profitable firms that are in a position to take advantage of the saving they
offer, they favor firms in more developed and prospective areas. Tax Incentives can be
introduced more rapidly and are subject to lesser procedural complexity as compared to subsidy.
Government is often held responsible for failure of subsidized business, as the result of the
government subsidy policy can be more directly linked to the fortunes of the recipients.
Following are the arguments in favor of subsidies over tax incentives. The expenditure subsidy
can be fine tuned and targeted to the specific group compared to subsidies. There is a growing
concern that tax incentive may not be as an effective instrument as previously experimented.
The increasing complexity of tax code and frequent tax amendment program may lessen the
practicality of tax incentives. The empirical evidence in Canada has proved that the high rates of
inflation can reduce the benefit of capital cost allowance, and because of this savings from tax
incentives may not match cash requirements. Subsidies assist new business growth and creation
of job opportunities in ‘less developed’ part of the country.

Hicks A. Sam (1978) in his research paper titled, “Choosing the form for business tax
incentives” has examined the different forms of business tax incentives and analyzed their effect
on the investment in capital goods. As per Hicks, the selection of appropriate form of incentives
is very crucial for the success of their afterwards effects. He has tested the different forms of
incentives like tax credit, accelerated deductions, additional deductions, exclusions, exemption,
reduced tax rates and specially taxed organizations. Based on the model for comparing
alternative forms of business tax incentives as per accounting principles, reduced tax rates have a
more favorable effect on the investment in capital goods. Also tax credit, additional deduction
and exemption are the preferred form of business tax incentives.

Mendoza Milesi-Ferretti and Patrick Asea studied 18 OECD countries and based on their panel
regression they found that the reduction in income (consumption) taxes would have a robust and
statistically significant positive impact on investment. However, they concluded that the impact is not statistically significant in a long run.

Metzler A. Lloyd (1951) in his research paper on “Tax and Subsidies in Leontief’s input output model” has tried to examine the impact of tax incentives and subsidies on prices by using Leontief’s input output model. The results obtained in this research are based on highly restrictive assumptions. In this paper; money wages, coefficient of production and normal profits are assumed to remain constant which means that the tax and subsidy affects income earners only through the prices which they pay for goods and services. The paper concludes that the price of taxed commodity is permanently higher than before the tax was imposed, while the price of subsidized commodity is permanently lower.

2.5.2 Indian Context

Research papers in Indian context shows different types of incentives and their implications from time to time.

In his study about an Analysis of Corporation Tax Revenue Efficiency in India, Nitin Kumar (2008) has used Stochastic Frontier Analysis (SFA). He studied 2214 firms from commercially available software and regressed data of the corporate tax revenue. The Stochastic Frontier Analysis (SFA) used in his paper postulates that some firms fail to achieve the optimal frontier of tax revenue. The study attempts to explain the behavior of corporation tax revenue and determinants of tax revenue collection efficiency using firm level data. The result indicates a concave relationship between tax revenue and the marginal tax rate.

Fiscal incentives are provided for the purpose of industrial development; however their cost and effect on industrialization remain indeterminate. Research article by Tulsidhar B V, Rao Govinda M (1986) titled, “Cost and efficacy of fiscal incentives: case of sales tax subsidy” examines whether subsidy is likely to fulfill the intended objective of industrial development, how incentives affect allocation of incentives, and quantifying cost of incentives in terms of revenue foregone by the government. Authors have analyzed impact of tax incentives on following goals. Reduction in taxes and other incentives attract capital in initial stage but policy lead to inter-state competition and in the long run all the states will have foregone substantial amount of revenue without remarkably altering their share in total industrial investment.

Subsidies and taxes are two key policy instruments that governments use to transform the market outcome. Taxes draw while subsidies inject money in to the expenditure stream. Keeping other things constant; the relative price of taxed goods increases and that of subsidized goods falls. Subsidies can promote growth by increasing the level of critical inputs like education, health, and infrastructure. Subsidies can also hinder growth by drawing away resources like water, power from more productive uses and can cause allocation distortions. In a line of this, D. K. Shrivastav and C. Bhujanga Rao (2002) discuss critical issues concerning budget subsidies in India. Authors have made following conclusions from their analysis. Government subsidies are large relative to resources and depend heavily on borrowing. There is large number of hidden subsidies and have not been taken in to account by explicit subsidies and national account estimates of subsidies. There is no need to continue subsidization for a large group of goods and services. There is substantial portion of hidden subsidies in the central budget, and hidden subsidies are 95 percent of total subsidies. Transfers, tax expenditures and government guarantees are examples of subsidies not included in the comprehensive estimates.
Agarwal Pawan K. and Sondhi H. K. (1987) studied and analyzed section 80HH of the Income Tax Act, which provides for an allowance for expenditure incurred in the industrial development of the backward areas in their report titled, “Fiscal Incentives and Balanced Regional Development”. The objectives of the study were, a. to estimate the cost of the backward area development allowance and b. assess the impact of the incentive on the development of industrially backward areas. The report concludes that the tax incentive for which section 80HH provides does not entail substantial loss to the exchequer. It is required to rationalize backward area allowance and its harmonization with partial tax holiday available under section 80I. As per the recommendations of the Economic Administrative Reform Commission, section 80HH and 80HHA can be deleted and the provisions contained therein may be substantially included in the provision of section 80I by proper modification and allowing higher percentage of deduction.

The aim of tax holiday or any other tax incentive is to stimulate investment activity and to improve rates of return either by reducing the cost of capital or by lessening the tax burden. The budget of the year 1980-81 has introduced the scheme of tax holiday for new industrial undertakings. However it was criticized on the ground that it may result in dilution of benefit of tax holiday and may inhibit investment especially in some key areas like cement. A research article by Bagchi Amaresh (1980) titled “Is New Tax Holiday less Beneficial to Industry?” discusses what justifies the change in base for computation of tax holiday profit from capital to income. As per this article an incentive related to profit and not capital can be less biased in favour of capital intensity. The impact which tax incentive has on techniques of production depends basically on the availability of alternatives in the field of technology and it may result in capital-labor substitution altogether within the existing available technology. It has been found that the system of incentives in India rather than helping to correct distortions in factor prices (so relative scarcity of capital and abundance of labor are duly reflected in their relative prices) works in opposite direction. A profit linked tax incentive promotes efficiency.

Shrinivasan (1980) made the most thorough analysis in his Ph.D. thesis. He studied the impact of two types of incentives namely development rebate and backward area subsidy. He chose the period 1968-1973 and studied electrical, chemical and pharmaceutical industry. In his research, he studied the impact of development rebate on private corporate investment, borrowing and dividend; and the impact of backward area subsidy on project selection and project location.

2.6 Fiscal Policy and Exchange Rate

The government spending policies especially on public infrastructure affects the dynamics of exchange rate and in an open economy fiscal policy affects the exchange rate and trade balance.

2.6.1 Global Context

An Article by Garrette Geoffrey (2000) demonstrates that there is slight evidence whether the international integration of the financial markets has been associated with reduction in fiscal activism in the OECD countries. The article presents that in the case of fixed exchange rate structure, fiscal policy is more restrictive. The author has studied 21 OECD countries on five facets of fiscal policy like public spending (percent of GDP), budget deficit (percent of GDP), capital tax rate, labor tax rate and consumption tax rate from 1985 to 1999 and have found the impact of all five fiscal policy facets on capital mobility by using Quinn’s Index of International Financial Openness. From this analysis, it was found that the correlation between capital mobility and fiscal facets was zero. Instead of relying on this outcome, the author estimated
panel regression comprising of 21 countries for 21 years. The general form of the estimated equation for the analysis was:

\[ \text{FISC}_{it} = b_1 \text{FISC}_{i(t-1)} + b_2 \text{CM}_{it} + b_3 \text{FLOAT}_{it} + b_4 \text{CM.Flt} + \varepsilon + \text{CONTROLS}_{kit} + \mu_{it} \]

In this equation, the subscripts are parameter estimates, denoting for country and year respectively. \( \mu \) is an error term. FISC is a relevant fiscal policy outcome. With respect to the control variables, higher unemployment rates could be expected to put upward pressure on spending and deficits, and to be associated with lower tax rates. Fiscal outcome was then calculated for high and low financial international openness and floating and fixed exchange rates. The outcome says that the deficits were considerably lower in the case of high financial openness and fixed exchange rates.

Kesselman R. Jonathan (1992) has given a very unique idea in public finance about public debt management. Author has given his non technical view about issuance of debt (Treasury bill in particular) in Canada for US citizens. He opines that increased exchange rate risks by raising debt from another country will offset or most probably will reduce cost of debt. For that the condition is volume and liquidity of debt issue. Further he notes that as US is largest trading partner with Canada, concentrating the issue on single currency is most effective than wide spreading among number of currencies.

Reinhart M Carmen (1991) in his research paper on “Fiscal Policy, the Real Exchange Rate and Commodity Prices” has assessed the impact of changes in fiscal policy, commodity and real interest rate. The author has used Mundell-Fleming Model and there are three countries in this analysis-home country, foreign country and the third country is commodity supplier. The analysis highlighted that how an expansive fiscal policy in a large country can have negative output and consumption consequences for trading partners with different indebtedness and production profiles. While the impact in a second country is that due to lower production and deterioration in terms of trade; disposable income falls. In a similar way, the commodity exporting country also faces deterioration in terms of trade and as a consequence, there is a reduction in its value of output and increased burden of debt servicing. There are however number of unrealistic assumptions in this model which limits the model’s usefulness to analyze the international transmission of fiscal disturbances in present period.

**2.7 Fiscal Restructuring, Fiscal Transfers and Reforms**

Fiscal transfer is a financial transfer from a central authority to subsidiary or to a member of fiscal transfer union among member governments of economic community. Fiscal reforms were initiated in India and all over the world due to large fiscal deficit, automatic monetized of deficit, high inflation, high interest rate, low elasticity of direct and indirect taxes, high degree of tax evasion etc.

**2.7.1 Global Context**

Below is the literature review of fiscal restructuring, fiscal transfers and reforms took place mostly in industrial economies in a global context.

As in earlier research of C. Rangarajan and Shrivastav D. K.(2005, 2004) have reviewed fiscal transfer’s system in India and Canada; the present paper by the same authors compare fiscal
transfers of Australia with India. Basic motive is to take the insights from Australian federal system as their fiscal system is more than hundred years old. As compared to Australia, India has not only larger number of states and larger population but also greater concentration of population in low fiscal capacity states. Below are the important inferences about differences, similarities and essential lessons in respect of the horizontal and vertical dimensions of transfers. First is in Australia, there is a high degree of vertical imbalance and centralization of expenditure. Indian system is also characterized by high degree of vertical imbalance but comparatively lesser than Australia in terms of revenue collection. Also centralization of expenditure is not as high as in Australia. As per Mathews (1993), the threat to horizontal equalization in Australia arises not only from inherent defects in fiscal equalization but from pressures which are being placed on it by continuing failure to restore vertical fiscal balance. Second is for equalization transfers, Australian system is sound in principle but the methodology adopted particularly with respect to equalizing expenditure disabilities has made the system unduly complex.

In Canada, federal fiscal transfers have evolved through a non-constitutional process, except for the equalization transfers which have a constitutional status. Most of the arrangements are done through series of negotiations between two tiers of governments. In comparison to Canada, in India, the institutional arrangements are quite different; as the core arrangements regarding the sharing of resources and responsibilities are derived from the constitution only. Further, in Canada transfers are calculated on a year on year basis and the calculation for any one year remain open for four years and entitlements are revised whenever fresh data are available. In comparison to this, in India, Finance Commission award remains valid for five year period. In Canada, 85 percent of the population and 87 percent of GDP are located in just four provinces (Ontario, Alberta, Quebec and British Columbia) of country. And as most of the population resides in these four provinces, the task of redistribution is easier. In India, there are significant disparities in State GDP but the share in population of poorer states requiring transfers is relatively larger as compared to the share in population of richer states. In Canada, the federal responsibilities is shared between two tiers of the government, while in India, the federal government has assumed increasing responsibilities in the area that are in the domain of the states. While comparing the Canadian system of inter-governmental transfers, with the system of fiscal transfers in India authors C. Rangarajan and Shrivastav D. K. (2004) in their working paper on “Fiscal Transfers in Canada: Drawing Comparisons and Lessons” highlights that the heart of the Canadian transfer system is equalization. Canadian system indicates that for a good indicator of fiscal capacity, one should go beyond using the per capita GSDP.

2.7.2 Indian Context

It has been indicated in the eleventh and twelfth finance commission to devolve the fiscal policy framework at sub-national level. This is the brief review of literature of fiscal restructuring, transfer and reforms in Indian context.

As the states are facing severe fiscal crisis from the beginning of nineties, the importance and address to sub-national level fiscal reforms is obvious in India. An almost a decade of political strife coupled with populist economic policies in nineties led to a massive fiscal deterioration in Punjab. In response to this, a thorough fiscal reform program was initiated in 1990s by signing

16 Mathew (1993) found that it is a paradox that Australia has combined the world’s finest system of horizontal fiscal equalization with one of the most vertically unbalanced fiscal systems.
Memorandum of Understanding (MoU) between State Government of Punjab and Government of India. A research by Sawhney Upinder (2005) in his working paper titled, “Fiscal Reforms at the Sub-national level: The case of Punjab” finds that fiscal imbalance in the state, to the extent, has been the result of the lack of transparency and accountability. Non-transparent tax incentives, quasi fiscal subsidies and off budget spending all contributed to such imbalances. A scrutiny of finances of Government of Punjab shows large revenue and fiscal deficit year after year indicating continued macro fiscal imbalances of the state. Increasing dependence on the RBI and the continuous application of borrowed funds largely on current consumption and debt servicing indicates unsustainability and reflects vulnerability of the state finances. An increase in the ratio of fiscal liabilities to GSDP coupled with large revenue deficit indicates that the state is gradually getting in to a debt trap. Even after commencement of the medium term fiscal reform program started in the state in 2003, the state has not been able to achieve its target of fiscal consolidation. The revenue expenditure which constituted the largest bulk (95.14 percent) on an average was incurred to maintain the current level of services and did not represent a significant addition to the states’ service network. Only by reducing revenue and fiscal deficit by compressing non-developmental expenditure in a medium term framework, prudential debt management and transparency in fiscal operations can achieve fiscal stability.

Pethe Abhay and Lalvani Maya (2005) in their paper on “Fiscal situation in Maharashtra: An assessment, a critique and some policy suggestions” look at the fiscal health of the state of Maharashtra. There is a distinguished characteristic of Maharashtra as the economic growth of the state is regionally skewed and is mostly dependent upon performance of Mumbai (it is clearly evident from the District Domestic Product of 35 districts of Maharashtra). Not only this, the combined contribution of three districts out of 35 which occupy 10 percent of State’s geographical area, their contribution to per capita GSDP was 78 percent in 2002-03. To find out the fiscal stance of the state, when expenditure pattern were analyzed, it is found that in case of development expenditure, both revenue and capital expenditure have been axed. When the authors analyzed the fiscal picture of the state—pre reform and post reform--- it was found that the Maharashtra started off as being better than even the reform projections made by EFC (Eleventh Finance Commission) but ended up being worse than even the non-reform scenario. The state shows deteriorated performance as far as the ratio of revenue deficit to GSDP is concerned. Further analyzing structure of revenue deficit, authors found that the revenue expenditure as a percentage of GSDP has shown a steady reduction. Having taken, stock of the expenditure performance, Maharashtra’s performance on the own tax and on non tax revenue front has been substantially better than even the reform projections of the EFC. The overall impression is that while Maharashtra’s performance has bettered the reform projections made by the EFC on the revenue front, it has fallen short of the target on the expenditure front. The direction of the expenditure is the major cause for deficit. Moving step forward, from the macro picture of the state of Maharashtra, if it is required to identify a specific sector which has added significantly to the fiscal despairs of the state, the prime accused is the power sector. The scenario shows that until 1999-00, the MSEP’s (Maharashtra State Electricity Board) financial performance was guaranteed by the state. From the 2000-01 onwards MERC (Maharashtra Electricity Regulatory Commission) has set strict performance target for MSEP and has issued tariff orders predicted on efficiency improvements together with tariff adjustments such that the state will no longer subsidize utility. MSEP incurred net loss without subsidy of Rs. 1499 crore in 2000-01 and since then the MSEP picture has become worse. The power sector of the state, like other parts of the country has been characterized by a lack of commercial orientation.
Despite endowed with rich natural resources, Orissa is the poorest state in the country today. Nearly, 48.8 percent of total population lives below poverty as against 35.9 percent of country average. In the year 2002-03, Orissa’s outstanding debt was 58.87 percent of GSDP as against 30 percent of average of other states. The consolidated debt of Orissa was 378.86 percent of its revenue receipts. And because of this fiscal picture, Orissa has been considered as “highly stressed state” in terms of debt and debt servicing. Moreover, the gap between revenue deficit and revenue expenditure has been increasing at an alarming rate from 1991 onwards, forcing the state to resort to highest state of borrowings. The unchecked borrowing has ultimately led to a debt trap, fiscal bankruptcy and stagnation of the economy. Rath S. S. (2005) in his paper “Fiscal Development in Orissa: Problems and Prospects” has analyzed the fiscal situation and solution to come out from the mounting circle of vicious revenue deficit, higher doses of liability and higher interest liability. As per MTFF (Medium Term Fiscal Framework), Government of Orissa has taken a number of measures for revenue generation through rationalization of different tax rates, broadening tax base and better enforcement. Moreover, it has taken structural change at micro level for the administrative departments. The government has directed the industry department to implement further measures to rationalize regulations for entry of private investments. To restructure the debt, debt-swap scenario has been generated assuming that Orissa is allowed to replace the entire liability owed to the centre through low cost fresh market borrowings at the assured interest rate of 6 percent.

Andhra Pradesh has been one of the front-runners in terms of implementing reforms since 1995-96, at a time when several major states were still skeptical about identifying the need and initiating reforms. In the state, during the late 80s and mid 90s, the non-plan, non-developmental expenditure has increased phenomenally, which led to huge fiscal and revenue deficits. As a result of this, government initiated several fiscal reforms and implemented Medium Term Fiscal Framework (MTFF) covering the period 2001-06. Rao Sudarsan S. in his paper titled, (2005) “Fiscal Reforms and Finances of Government of Andhra Pradesh” addresses the need for fiscal reform even after implementation of MTFF. In Andhra Pradesh, in terms of compositional shift in expenditure, augmentation of own revenue and fiscal consolidation, fiscal reform could brought desirable changes. Few areas yet to be addressed as per the analysis of author, e.g., the proportion of expenditure allocated to social services has increased, but as per the UNDP norms, the human development ratios of public expenditure such as social allocation ratio (SAR), social priority ratio (SPR) and human priority ratio (HPR) are far below from the standard. Further, reform in the public sector enterprises especially power sector needs fillip. Also, rationalization of rice and non-rice subsidies followed by additional budgetary allocations to sectors such as agriculture and irrigation need to be made.

Bishnoi N. K. (2004) in his working paper on “Fiscal Management in Haryana: A Review” has made an attempt to address the factors leading to the worsening of the state finances of Haryana. Analysis says that the revenue receipt of the state could not keep pace with expenditure requirements and so resulted in to a deteriorated fiscal health. The problem was aggravated by the imposition of prohibition policy in mid 90’s and further fifth pay commission affected the expenditure side of the budget substantially and the state came in trouble in late 90s. In Haryana, subsidies have grown up sharply during 90s and almost 90 percent of subsidy goes to the power sector. The uncontrolled and untargeted subsidy bill indicates poor fiscal management of government. The composition of committed expenditure (salary, pension and interest payments) is such that out of every Rs. 100 received by Government of Haryana Rs. 90 goes for the payment of committed expenditure and Rs. 10 government can spend at its discretion.
Sarma J. V. M. (2003), attempted to assess progress of fiscal reforms in Andhra Pradesh in paper titled, “Fiscal Management: A Review”. The paper attempts to identify appropriate measures and formulating strategies for fiscal reform. From year 1986-87 to 1995-96 fiscal deficit deteriorated from 2.6 percent to 3.5 percent of GSDP. It increased because of increased spending on social and community services expenditure (mainly education) without corresponding rise in revenue receipt. Due to borrowing constraint imposed on states, the burden has resulted in fall in capital and maintenance expenditure. This further resulted in infrastructure constraint and to declining productivity of public sector investment and deceleration in long term growth of economy. It has been suggested to restructure and strengthen the management of government expenditure. For which explicit budget ceilings for each department during beginning of budget preparation can encourage prioritization of programmes and minimize the need for supplementary budget allocations.

In India, since 1991, lost tariff rates have resulted in an uncompensated loss in aggregate tax revenues which has amounted to two percentage points of GDP by 2001-02. The research by Rajaraman Indira (2002) on “Fiscal Restructuring in the context of trade reform” discusses issues of fiscal compensation for lost revenue. The policy instrument says replacement of trade tariffs by domestic indirect taxes, and destination based VAT. But the empirical evidence of three developed (Canada, USA, Australia) and three developing (India, Argentina, Brazil) countries indicates that national governments collect far lower shares in domestic indirect taxes, than in income taxes. Even if revenue replacement is possible through VAT, international evidence do not show revenue enhancement from introduction of a VAT in low income countries. The research concludes that the fiscal stress in India (as well as in developing countries) undergoing a process of trade tax reform is a result of both theoretical and practical neglect of the revenue loss from falling trade taxes.

2.8 Micro Small and Medium Enterprises (MSMEs) and Fiscal Incentives

MSMEs constitute 90 percent of all industrial units with 40 percent of the industrial output of the country. The sector contributes to 38 percent of the country’s export and employs more than 3 crore people in India and contributes around 17 percent in India’s GDP. The impact of different fiscal incentives like tax exemption/rebate, interest rate subsidy, cash subsidy, export and import duty exemptions etc on the various corporate decisions like less borrowings, expansion, modernization, improved liquidity of the business etc is not certain or in other words it varies from country to country and also from time to time. The below review of literature discusses the impact of various fiscal incentives on firms’ performance.

2.8.1 Global Context

Impact of fiscal incentives given to the corporate sector is ambiguous and varies from country to country. It is because fiscal incentives given with one objective may result in to other or sometimes their total effect may be nullified. Below are the reviews of the research papers and reports of fiscal incentives given to MSMEs in foreign countries.

As per the research titled, by Pizzacala Mark (2007) “Australia’s SME’s Tax System: Is it working?” it seems that in Australia, policy makers have failed to properly identify and target relevant tax concessions for the SME sector. The tax structure and incentives are seemed to be ad-hoc and reactive in nature. From the survey and analysis, it is clearly evident that more efforts

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17 MSME Dossier 2009
needs to be done to make the SMEs concession simpler to understand and less costly to access. There should be appropriate medium to longer term tax policy. This can be achieved by lowering of the overall tax burden for SMEs, having more focused approach of developing appropriate SMEs tax strategies rather than tax compliance, increasing investment tax incentives and initiatives for SMEs, encouraging retention of taxable profits and access to higher R and D concession rate.

Long Viet Nguyen (2006) in a paper on “Performance and Obstacles of SMEs in Vietnam: Policy Implications in a near future” has examined the performance of Vietnam’s SMEs and policy issues. Despite high growth rate of SMEs in Vietnam, they rank quite low in comparison of world. Their contribution is significant to job creation in the last ten years, but the employment percentage in the SMEs sector has not reached that of international standard. Even though from time to time government has initiated reform programs, SMEs face obstacles like lack of fund, easy access to formal credit, inefficient land legal framework, lack of information, low level of international access etc. They also face lack of credit and rigid regulations result in to lack of capital and as a consequence outdated technology, low level of skill and weak management. The finding of the survey reveals that the policy makers should work towards information access, finance, technology, incentives to enhance skill etc.

Spain’s corporate tax policy is considered to be the most generous among the OECD Countries, but survey says that it is little used by the firm. Corchuelo Beatriz M. and Ros-Martinez Ester (2004) have thoroughly analyzed this matter in their research paper on “Are fiscal incentives for R and D effective? An Empirical Analysis for Spain” The finding says that size of the firms does not have any impact for the use of tax incentives for R and D projects. However, very large size firms use them extensively. From the survey, it came out that in the case of MSMEs a reduction of obstacles might increase their probability of implementing innovations and therefore increasing their R and D spending. It is required to remove all the legal and administrative barriers that preclude SMEs to assess and exploit the typical incentives of these policies.

Looking at the SMEs contribution towards employment generation, value added of goods and services, exports etc; and when economies of ASEAN and APEC were moving towards greater economic integration, the issues and address to SMEs policy become more important. A paper by Hall Chris (2003) examined the policy for SMEs in ASEAN and APEC. Author has surveyed 18 economies of ASEAN and OPEC from the period of 1999 to 2002 and observed following things. Almost all survey economies are trying to provide a conducive environment to their SMEs but neither of two economies’ SMEs policy had closeness in it. There was a greater variation of SMEs policies among them. ASEAN economies have adopted more direct approach of supporting SMEs while that of APEC is rather indirect.

Anke Green (2003) in his report on “Credit Guarantee Schemes for Small Enterprises: An Effective Instrument to Promote Private Sector-Led Growth?” analyzed that credit restrictions tend to hinder small firms from developing their full economic and social potential and can therefore have considerable adverse effects on economic growth in the long run. Lack of formal credit is, to a large degree, the result of imperfections in the market for credit to small firms, thus justifying government intervention. This paper focused on credit guarantee schemes as a possible remedial measure. Obtaining finance for working capital, investment and/or leasing purposes enables small businesses to improve their competitiveness and to extend their economic activity. To the extent that access to capital and/or more favorable loan conditions stimulate productivity-
enhancing investments by small firms, credit guarantee schemes do not only improve the performance of these firms, but also act as a stimulus for private sector-led growth.

2.8.2. Indian Context

India has designed and implemented fiscal incentives from time to time to achieve various macroeconomic objectives. Below is the literature review of fiscal incentives given to MSMEs in Indian context.

Report of Task force of Prime Minister of India, MSMEs, GOI (2010) states, besides the growth potential of the sector and its critical role in the manufacturing and value chains, the heterogeneity and the unorganized nature of the Indian MSMEs are important aspects that need to be factored into policy making and programme implementation. Although Indian MSMEs are diverse and heterogeneous group, they face some common problems like lack of availability of adequate and timely credit; lack of access to global markets; inadequate infrastructure facilities including power, water, roads, conveyance etc.; lack of skilled manpower for manufacturing, services, marketing and lack of access to modern technology.

Keshab Das (2008) in his research paper, “MSMEs in India: Unfair fare” critically reviewed the performance and policy concerning the micro, small and medium enterprises (MSMEs) in globalizing India since the early 1990s when economic reforms were formally introduced. With an explicit modulation upon participating in the global market sphere, the government policies have reoriented focus towards enhancing exports, competitiveness and efforts to be part of global value chains or global production networks. However, an analysis of relevant performance variables clearly indicates an unimpressive fare, with classic constraints like dwindling access to credit and poor product quality persisting. Even the so-called cluster promotion initiatives have left much to be desired. These are additionally burdened by unreliable or inadequate policy-sensitive database on MSMEs.

As India has shifted to the market based economy and also for the rapid and balanced progress, role of MSMEs has attained greater emphasis. A report by SIDBI (2008) “Risk Capital and MSMEs in India” is a project report under taken by Indicus Analytics for the Small Industries Development Bank of India (SIDBI). It is an initiative for SME financing and development project under policy advocacy component of multilateral fund. As per the report, Indian MSMEs do not have easy access to a well defined eco-system of risk capital availability. To fill this gap, India needs a very thorough, properly designed and adequately resourced risk capital regime. However, it should be customized by taking in to account ground realities of Indian MSMEs, because merely creating financial institution may not serve the purpose. The systems, rules, procedures and practices governing the appraisal, granting of capital, monitoring is need to be redesigned carefully. This will require multi-dimensional and multi-departmental approach, where human capital, financing, legal regimes, structuring of taxes, subsidies all need to be redesigned to suit the requirement of India’s MSMEs. What is required is that the government needs to catalyze this activity by removing the procedural complexities and making the set of fiscal incentives performance oriented.

Amaresh Bagchi, R. Kavita Rao and Bulbul Sen (2007) in their working Paper “Tax Breaks for the Small Scale Sector: An Appraisal” finds out that the measures to help the MSMEs should focus on promotional measures, particularly making institutional credit available on reasonable terms. Moreover, authors opine that rather than emphasizing the dichotomy between the small
and large scale sectors, it would be worthwhile to promote the synergies and interdependences between the two sectors. The policy should strengthen such initiatives to facilitate rather than continue with irrational and harmful practice of providing tax breaks.

Clusters can play important role for survival and growth of SMEs. It has been observed in clusters formed in Italy that they have evolved in to globally renowned manufacturing bases for a variety of products. The reason for the success of Italian clusters is their ability to innovate and modernize and attune to changing market conditions. Gomes Janina (2001) in a paper titled, “SMEs and Industrial Clusters: Lessons for India from Italian Experience” has analyzed the performance of Italian clusters and suggested to adopt for Indian SMEs. In Italy, SMEs account for over 40% of the Gross Domestic Product (GDP) and are described as spine of Italian economy. Besides, SMEs in Italy, with less than ten employees represented 96 percent of industry. Industrial clusters in Italy are studied by many Asian countries in order to upgrade capacity of production and to adapt changing market environment. The reason behind such a good performance of clusters are close proximity of raw material suppliers, equipment suppliers, component producers, sub-contractors and final good producers, together with a combination of both intense rivalries between firms and cooperation in producers’ association drive the whole cluster forward.

As per the author’s observation the major difference between clusters in Italy and India is that former have secured competitive advantage in supplies to niche markets by competing mainly on the basis of quality, design, speed of innovation and speed of response. In India clusters at Tamil Nadu, Andhra Pradesh and other places have achieved success in exporting basic products but yet they have shown little capacity to move in to higher value market niches. Author has examined Italian Model and shown the consideration for its applicability for Indian MSMEs. First, in Italy productive systems that depend on exports were under pressure to enhance their competitiveness and rationalize their production process. Second, in Italy industrial districts were part of wider industrial areas or clusters and had greater opportunity for technological and marketing innovation. Third reason is the access clusters had to strategic information, advanced quality services and possibility of integrating these within firms. The important difference between Italian and Indian clusters is that Italian clusters have innovated and displayed an ability to adapt to markets and international competition; while many Indian firms have low productivity due to use of traditional tools, old techniques and outdated technology, poor labor productivity and bottleneck of infrastructure in product lines. In India by focusing on quality standards and technological up gradation Indian clusters can network with overseas clusters and can become leaner and better to handle market competition.

2.9 Special Economic Zones (SEZs) and Fiscal Incentives

International experience on SEZs shows that these have been treated as ‘laboratories’ for experimenting with radically different public policies. Brief literature review reveals that how SEZs differ in terms of public policy, procedural aspects, size and others and due to this factors they also differ in terms of output, contribution in GDP, export, employment and many more from country to country.

2.9.1. Global Context

Below is the literature review of SEZs and fiscal incentives in global context.
When IFC Team conducted a survey at Nepal SEZs (2008) following results came. Tax Incentives was the sole reason to operate in SEZs and the firms revealed that they cannot operate without them. Tax Incentives were listed as a one of the firms’ top five investment site selection. Majority of the firms described the very beneficial impacts of tax incentives on their operations, while few of them indicated it as an important ‘sign’ from government indicating that government values investment. When respondents were asked to evaluate and rank between tax incentives on one hand and other benefits like infrastructure, training and reforms on the other hand; most of the firm valued second option compared to tax incentives. As per the survey, one fear is that through tax incentives uncompetitive companies with bad management could derive short term benefits from tax breaks, but ultimately fail in their business venture. Some respondents said it would be better to reform the overall business environment and provide a level playing field. In alternatives of tax incentives, firms valued subsidized electricity, upgrade to infrastructure, no import tax on capital investment and accelerated capital depreciation on capital equipments.

One of the reasons for China’s miraculous economic reform is its open policy. Author Lai Harry Hongyi (2006) has studied Chinese policy for a decade and that has presented this in his research paper on “SEZs and Foreign Investment in China: Experience and Lessons for North Korean Development.” From the author’s observation, North Korea needs to learn and implement following matters for their SEZs. China carefully selected provinces and areas with strongest political, economical and social backings. Deng staffed committed, liberal and open-minded leaders for Guangdong, Fuzian and other SEZs. China provided more liberal approach of fiscal incentives for these two provinces on an experimental basis and later on applied to entire SEZs.

New Zealand is at the cross roads in terms of assessing which part to follow to encourage greater investment in R and D. Author Adrian Sawyer (2005) in his research paper on “Reflections on providing Tax Incentives for Research and Development: New Zealand at the cross roads” has analyzed the policies of New Zealand (New Zealand Government currently prefers subsidies over tax incentives) with other OECD countries (Some OECD countries like Sweden and Finland neither provide subsidies nor tax credit for their R and D effort, still such countries have high level of private R and D expenditure.) On the other hand, some countries like US, UK, France and others prefer combination of both for R and D investment. At the end, based on content analysis author concludes by taking inputs from Van Pottelsberghe et al advantages of fiscal incentives over direct financial support (R and D grants).

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Li Denis and Ben-Hui Zhou (2003) have observed few structural issues of Chinese SEZs. After the establishment of SEZs, because of higher land premium, land advantage is also diminishing and because of rise in average income, labor advantage has start diminishing.

Only in Shenzen out of 12 million of total population, seven million are migrant workers with almost no legal and social protection. Year 1992 data for the Guangdong province shows very high death rate and more than 5,00,000 child labors (As per Weil (1996), it has been reduced in post-revolutionary China). In 2003, half the firms in Shenzhen owed their employees wage arrears and at least one-third of Chinese workers received less than minimum wage (Jayanthkumaram, 2003).

Alok Roy (2002) is arguing that the postponement of reforms in state owned enterprises and banking system has now created a situation, which would make the sustenance of present economic growth quite difficult. Because of various tax exemptions, the government tax/GDP ratio is falling (31.2 percent in 1978 to 11.6 percent in 1997) and government has consequently relied upon state owned banks to channel the rapidly rising saving of the household sector to unreformed loss making state owned enterprises. The level of NPL (Non performing Loans) has reached to such an extent that the entire financial system has become highly vulnerable. The researcher is also pointing out that there are some physical constraints on the further growth of Chinese economy such as environmental degradation, infrastructural bottlenecks and difficulty of increasing agricultural production (mainly due to shortage of arable land irrigation) to keep pace with population growth.

Cartier (2001) has shown in his study that “Zone fever” along with other real estate speculation led to a severe threat to arable land in the country. From 1986 to 1995 approximately, five million hectares of arable land were transferred to real estate and infrastructure development. From 1990-97, the Fujian province and site of the Xiamen SEZ alone saw more than 350000 hectares of arable land transferred to industry.

Asif Dowla (1997) has surveyed the Chittagong EPZ of Bangladesh and has found the economic impact of it. The major inferences are that EPZs is a source of direct and indirect employment but the backward linkage of the Zone with rest of the economy is negligible. Most of the firms in the zones are engaged in the labor-intensive production that leads to a very little technology transfer. Job security and worker health benefits are minimal. Chittagong EPZs also suffers from poor marketing of their products.

Mannan conducted a study for the Bangladesh Commission for Justice and Peace. It reports that 75 percent of female workers are required to work nine hours a day six days a week; 77.7 percent of them are compulsory required to work overtime at 40 percent of normal wages. The people in the management cadre sexually abused them. He further noted that factories were over crowed with poor ventilation and dining facilities.

Benedict Stavis (1991, 2009) after going through the case based study of SEZs, has noted that SEZs were required a large amount of capital to prepare for the infrastructure and they were not making as much in foreign exchange earnings as desired since they were importing inputs for production and consumer goods and were opening up the Chinese market to foreign producers. In his finding, he has further noted that they were bringing low technology assembly jobs rather than advanced high technology industry.
Chen Xiangming (1990) has revealed some of the complexities and myths concerning migration to Shenzhen in “Magic and Myth of Migration: A Case Study of Special Economic Zones in China”. Because of heavy investment from Government and encouragement for migration, it was told that Shenzhen has been built overnight. However, such migration has complicated in many ways the relationship between voluntary individual migrations based on rational calculation and strong draw of economic forces. Population growth in Shenzhen tended to go ahead of the new and fledging infrastructure in the city. Because of this, many industrial workers had to live in wooden shacks that lacked convenient facilities. Also rising trade and consumption fervor attracted some businessman to take the disadvantage of SEZs’ flexible policies for smuggling and illegal trading practices. Moreover contractual employment provided limited security. But in compared to all gloomy sides of SEZs, due to the miraculous growth of SEZs, world industrialist regarded Shenzhen as a ‘barometer’ of their confidence in China’s open-door economic policy.

T. Crane (1988) in his study has noted the following observations about SEZs performance in china. Cranes had tried to draw a comparison between domestic infrastructural spending and actual foreign investment in Shenzen as an important measure of SEZs’ economic performance. He has recorded that the only year in which foreign investment has exceeded domestically financed construction of zones is year 1986. In 1987 all SEZs have recorded foreign trade deficits. Technology transfer was also very limited, with majority of foreign investment driving from Hongkong.

Wong Kwan-Yiu (1987) has surveyed five SEZs of China. He has noted that Shenzen SEZ alone accounted for over half of the foreign investment in China. (50.6 percent in Shenzen, 2.9 percent in Zuhai, 3.7 percent in Shantou, 2.6 percent in Xiamen). Like T. Crane, Wong has noted that the main negative comment is the amount of domestic capital invested in the zones (particularly in infrastructure provision and in domestically linked enterprises) has so far outweighed the amount of foreign investment being attracted. He further remarks that the performance of SEZs in terms of foreign exchange earnings is less impressive. One of the main objectives of SEZs is technology transfer. However, in the Shenzen SEZs, more than 93 percent value of the industrial production came from labor-intensive industries. Until this date the problem of transportation, linkage to the area, water and electricity are unsolved. Another problem is the absence of well-trained professional staff and application of outdated management method instead of modern management technique. Again the phenomenon rise in the price of land, rent and commodities is a serious problem.

Chu K.Y. David and Wong Kwan-Yiu (1984) have surveyed EPZs and SEZs of China for a period of five years and have observed some social issues in it. Among many much worried social issues, one is the increase in the number of unmarried female workers. Owing to the nature of the work and wage level, most of the workers in zone enterprises are young girls coming from rural areas or from low income, urban families are soon exposed to the hazards of city life. Low wages, poor working environment, overcrowded dormitory affect their health and their chances of getting married. Another major issue that has been noted is the phenomenal rise in the prices of land and rents in EPZs and its environs. It also creates a pressure on food, housing and other suppliers which triggers off an inflationary spiral. Not only this, conflicts and social crimes have also increased. The survey also confirms about poor administration and coordination.
2.9.2 Indian Context

Below is the literature review of SEZs and fiscal incentives in Indian context.

A research paper by Dr. Dhavan Anil (2011) on “Special Economic Zones and Indian Perspective” addresses following hindrance and measures for them in SEZs. There is a need to create a special high level fast track mechanism for priority sector projects. Moreover, the government should provide the workshop and training for sectors like biotechnology, automotive engineering, textile engineering, IT etc. There is a need to establish new private sector institutions with foreign collaborations. As GOI wants to attract $150 billion in the form of FDI, GOI should provide labor flexibility, promotion of sector specific SEZs and should provide ‘level-playing field’ for sectors which are dominated by PSUs.

Dr. Raut Radheshyam Kisanrao (2010) in his research paper on “SEZs and Indian Economy” discusses the impact of SEZs on the following parameter. Even though one of the prime objectives of SEZs is to promote export, till 2010 data says that in major five SEZs (Kandla, Santakruz, Kochin, Noida, and Falta) imports have outstripped their exports. Most of the Chinese SEZs are located on the coastline while Indian SEZs have been concentrated in big cities. Moreover the distribution pattern is not balanced. Distribution pattern shows that approximately seventy five percent of the total SEZs are located in four states (Andhra Pradesh, Gujarat, Maharashtra and Tamil Nadu).

Aggarwal Aradhana (2010) has examined the economic impact of SEZs in India in her research paper titled, “Economic impacts of SEZs: Theoretical approaches and analysis of newly notified SEZs in India.” The research by the author finds that SEZs are stimulating direct investment and employment. SEZs are the effective platform to transform from resource-driven economy to the technology driven economy and from low-value added economic activities to high-value added economic activities. An analysis by author says that economic contribution of SEZs in Indian context can be explained within the framework of agglomeration economies and global value chain theories. The major contribution of SEZs lies in the fact that through SEZs domestic firms can get in to global supply distribution network and can augment their efficiencies. The first generation of SEZs is contributing primarily to employment and foreign exchange generation, while second and third generation SEZs are contributing towards diversification of economic activity and exports. Rather than dragging their feet due to the anti-SEZs sentiments, government need to identify the relevant issues and should adopt a systemic approach to address them.

Research paper by Pandya Falguni H. (2010) “Regulatory concerns for Special Economic Zones in India” says that there are several issues like availability of contiguous land, feasibility of truncated SEZs and large scale opposition that Board of Approval (BOA) considers. The paper has been written based on various policy and rules disclosure time by time. It includes that the ‘single window’ is required to mitigate the above procedural issues and others.

Joshi Yogesh C. and Pandya Falguni H. (2009) “Special Economic Zones in India: Some Issues” have addressed issues faced by SEZs such as financing issues for SEZs, faulty resettlement and

19 Theoretical approaches to evaluate rationality and benefits of SEZs are limited. The neo classical school suggests that they contribute to the economy by further reforms. The heterodox school suggests that their contribution lies in the fact that they serve as a platform to attract FDI which can act as major instrument in transferring new technologies and generating spillover effects which upgrade the rest of the economy as well.
rehabilitation policy, regional disparity, stamp duty issues, direct tax code, procedural clarity, partial or full denotification of SEZs. Authors have concluded that the economic gains from India’s SEZs till now have not been of a high order. The optimistic projections regarding exports, investment and employment in these zones, if they materialize then only can make SEZs a major vehicle for India’s stride towards achieving and sustaining 10 percent plus growth rate in medium terms, otherwise it is loss to the exchequer.

Palit Amitendu (2009) “Special Economic Zones in India: New Challenges for Governance and Public Policy,” has tried to address few crucial issues affecting SEZs. As per the author challenges have aroused primarily by hasty implementation of an industrialization strategy. The problem is due to uneven reforms between SEZs market and factor market. Further, the matter of compensation for land remains vexing issue, and determining correct market value of land titles is a severe problem. Moreover, to increase the financial viability of SEZs, they should have greater and easy access to finance. At present, this access has been constrained due to fundamental difference in the perception of SEZs between GOI and RBI. The Ministry of Commerce views it as a tool for growth and change, RBI perceives it as a speculative matter and subject to fluctuation. This has prevented banks from granting concessional finance. The author also says that policy makers have not made any provisions for ‘exit’. Up and running zones must be allowed to exit following the fulfillment of refund obligations.

Location decision of a firm has been subject for empirical research and literature suggests that location can be a contributing factor to the competitiveness of the firm. The impact of location on the firms’ performance has been the subject for research, and the Special Economic Zones (SEZs) with advanced infrastructure and other facilities can boost up their competitiveness not only at national level but also at global level. Dhingra Tarun, Sinha Dr. Ambalika and Singh Dr. Tripti (2009) in their research paper titled, “Location strategy for competitiveness of Special Economic Zones in India – A Generic framework” has concluded that Special Economic Zones have emerged as a popular strategy adopted by various countries, particularly by developing countries to enhance their competitiveness. By the help of these zones, countries have gained prevalence in these dynamic times to experiment with the market economy and to impart outward looking orientation to the economy. The ever increasing competition has also put firms on a look out to find new methods and strategies to remain competitive and to survive in these turbulent periods of time.

Guha-Banerjee Swapna (2008) examined performance of SEZs in India in article titled, “Space relations of capital and significance of new economic enclaves: SEZs in India”. The paper reveals that huge tract of lands within SEZs are being reserved for real estate projects involving luxury constructions which are projected as infrastructure development. In majority of multi-product SEZs, large chunk of the land is used for making golf courses, hotels, recreation complexes and world class residential complexes. All these so called infrastructure development activities will generate very marginal employment. Moreover the capital for this infrastructure development will not generate enough return. This expansion of enclaves results into disintegration of peasant economy. As peasant cultivators do not hold title of the land, they could be easily disposed and land converted to lucrative urban uses, leaving the cultivator with no rural base for livelihood rearing and forcing them out of land and in labor market. Author has suggested that to deal with it there is a need for integrative effort at political and social front.
Sampat, Preeti (2008), in “Special Economic Zones in India” explored some trends in the political scheme of SEZs in India with special reference to fallout of imminent displacement of thousands of people and livelihoods in the countryside where SEZs are set up.

Following the enormous success of China, Special Economic Zones (SEZs) has been largely initiated in India, but it is anticipated that the results may vary widely. Morris Sebastian (2007) in his paper on “Role of trade and Macroeconomic policies in the performance of Special Economic Zones (SEZs)” has analyzed the SEZs of different countries with their macro-microeconomic policies, trade policies and regional alignments. Author has opined that there is little meaning in studying SEZs beyond their layout and design without reference to these broader trade and macroeconomic policies. In a countries like China, Korea and others, it is more than SEZ/EPZs, it is their pursuit of ‘export led growth policies (ELG)’ underlie the success of exporting and hence of SEZs. Countries which have not pursued ELG; success of SEZs/EPZs and growth have remained rather modest. This helps and explains to anticipate that unless the policy turns sharply to favor exports, the success of Indian SEZs would be modest and nowhere near that registered in China.

Aggarwal Ardhana (2007) in her paper titled, “Impact of Special Economic Zones on Employment, Poverty and Human Development” has concluded as followings. Even though the contribution of Indian SEZs in creation of employment is rather limited, they have contributed significantly for employment generation at the regional level. ‘Value-Addition’ component and thus creation of indirect employment is noteworthy. The role of SEZs in human capital formation is rather limited. Even though most SEZs provide on-the –job training to their workers, most of the training is employer driven and lasts only for short duration. Survey by the author reveals that most of the workers feel that this training does not upgrade their skills for longer duration and moreover, they feel that they are exposed to learning by working under strict time schedules, high quality standards and working with sophisticated machinery. Unlike Chinese SEZs and others, Indian SEZs are not dominated by assembly line operations. And because of this Indian SEZs’ contribution as an engine for promoting new knowledge, R and D, technology and innovation through technology transfers has been quite limited. Most of them are dominated by medium term activities and are involved in contract manufacturing. Further, it has been found that the technology related activities of Indian SEZs are not different from those of the export oriented units outside the zone.

Not only the labor problem, Shenzhen now has crime rate that is higher than nine times than that of Shanghai and it is notorious for trafficking of women and sex trade (Goswami 1997). As per Business China (2006), relaxed customs have also led to a large-scale smuggling and massive tax frauds.

As per Sankar Gopalkrishnan, Indian model goes one-step ahead than China; it provides zones on demand, where not only the zone institutions but also the zone itself is created at the request of investment capital, subject only to a centralized and utterly non-accountable and non-democratic Board of Approvals. This is very dangerous. As Zhao Xiao, a former advisor to the Chinese State Council, said about SEZ in 2006: “This path is now a dead end…. Government cann’t counts on the beauty of investment covering up 100 other kinds of ugliness” (French, 2006).

Shridhar Kala Seetharam (2004) in his paper titled, “Impact of the Enterprise Zone” has tested the objectives like impact on employment, tax incentives, on the selected Enterprise Zones by
applying theoretically proved models for labor, production, employment and other variables. By this research, author has not drawn any conclusions but has used the model to predict about the above mentioned variables. The predictions are as follows: EZs can in reality be abandoned areas with high unemployment rate. Because, for persons in EZs, the job search behavior is characterized by low reservation wages seems realistic due to reasons of family or other psychological reasons or costs of relocation. The tax abatement is to be expected because of inherent mobility of the capital in response to changes in its prices until it is equalized across areas.

2.10 Fiscal Policy and Gujarat

The literature review related to fiscal incentives and fiscal situation in Gujarat has been presented below.

To measure fiscal performance among states, there is a requirement of appropriate concepts and in turn proper measurement of state incomes, fiscal deficit and debt. Dholakia Ravindra H. (2003), in “Measurement issues in comparing fiscal performance of states” stressed that neither rating agencies nor the finance commission have used the right concepts so far. As per the author, example of Gujarat illustrates the faulty technique of measurement, which can mislead target setting and encourage wrong fiscal performance of the states.

Lahiri Ashok K., Sen Tapas K., Rao Kavita R., and Jena Pratap Ranjan (2001), in “Economic consequences of Gujarat earthquake” attempted to estimate the economic impact of the earthquake. The paper found out that the total impact of earthquake on Gujarat’ GSDP may not exceed a quarter per cent, but the challenge of reconstruction and rehabilitation can increase fiscal distress. It can further worsen due to lost revenue and additional expenditure. But it is extremely important to limit the damage by avoiding unnecessary tax exemptions and overgenerous compensations. Also even loan financed quake related expenditure can have an enduring impact on the state’s finances through the dynamics of public debt.

In an article titled, Fiscal imbalance in Gujarat: Non tax revenue and subsidies”, author Dholakia Archana (2000), has studied fiscal policy of Gujarat from year 1995-96 to 1999-00. The article has analyzed Gujarat’s non-tax revenue and subsidies to find possibilities of improvement. The share of non-tax revenue in total revenue receipt in Gujarat has remained only one-fourth compared to other states where it is almost 40 percent of total revenue. The paper says that the per capita subsidies in Gujarat were the highest in 1993-94 and have doubled in 1998-99. Also the proportion of merit subsidies is quite small compared to non-merit subsidies. Moreover between two sectors namely social and economic, the subsidies flowing to former are less than 50 percent of total subsidies. Also, the paper reveals that the Gujarat has a poor recovery rate in almost all major social and economic services.

Liberalization is a process of relaxing or reducing restrictions, regulations and controls on economic activities by the government. In context of influencing industrial activities at the state level, the states have been using three distinct instruments. These instruments are providing tax and cost related incentives, provision of infrastructure and input supplies and granting approvals and clearance to the units. Dholakia Ravindra H. (2000), in “Liberalization in Gujarat: Review of recent experience” concludes that Gujarat’s secondary sector has gained from the national policy of liberalization particularly after 1990-91. Gujarat started major effort at the state level liberalization only after the mid-nineties and because of this only the impetus to accelerated
growth in the industrial sector in Gujarat continued significantly throughout the nineties. However it is to be seen whether the trend of liberalizing the economy continues at the same rate or accelerates in future.

An article by Awasthi Dinesh N (2000) titled, “Recent changes in Gujarat industry- Issues and evidence” presents economic reforms and industrialization in Gujarat based upon statistical evidence. In Gujarat, share of manufacturing sector in NSDP has continued to grow over time compared to agriculture or other sectors and the overall economy has continued to grow at an average annual rate of 7.3 p.a. during period 1986-96. Gujarat has a significant share in factory sector also at the national level. Industrial investment in Gujarat grew at an annual compound rate of growth of 18.24 percent during period 1986-96. The growth during 1991-96 (post liberalization era) at 22.08 percent was much higher than 14.52 percent recorded during 1986-91 (pre liberalization era). However, the growth was not spread evenly across various regions in Gujarat and was concentrated in regions within the states. As government of Gujarat has offered various fiscal and financial incentives to divert industrial investments to backward areas, it is expected to channelize more investment in backward regions.

The geographical spread indicates that the investments have flowed mostly to regions that have proximity to some major industrial concentrations, with the advantage of forward and backward linkages, or are on major trunk route or near the ports. None of the industries of districts of Dang, Banaskantha, Sabarkantha and Surendranagar received any major investment in medium and large industries during the decade. The investment therefore has got centered on industrial magnets or poles irrespective of the quantum of subsidies or tax holidays. Gujarat has evolved into a number of clusters over time such as brass-parts and components in Jamnagar, diesel engine and components in Rajkot, wall-clocks and flooring tiles in Morbi, weights and measures in Savarkundala, textile printing in Jetpur, chemical and dyes in Ankleshwar, Vapi and surrounding region etc. however the problem is that the technology in suarashtra region has become obsolete and there is problem of poor community linkage in Ankleshwar-Vapi region.

Experience across other states and countries indicate that clusters give rise to various kinds of economic and non-economic inter-firm linkages that improve efficiency and international competitiveness of Small and Medium Enterprises (SMEs), because of economies of scale and scope. Clustering leads to collective efficiency gains which is difficult to achieve individually. The reason for this is that because of the forward and backward linkages, networking, joint action, transaction costs are reduced. However some clusters have started showing negative externalities. The paper concludes that even if Gujarat government has been offering an impressive array of fiscal and financial incentives to attract industries, a critical bottleneck can dampen the flow of industrial investment is that of infrastructure. Author opines that mere fiscal incentives may not help to attract industries to the states as this can remain only auxiliary and not primary attraction for investments. This must be taken care, by the government while formulating policies for industrial development.

Sarma Atul (2000), has examined performance of Gujarat’s revenue and expenditure system in paper titled, “Gujarat finances: Reforms of budgetary management”. In Gujarat, planned revenue account yielded deficit starting from year 1985-86. Revenue expenditure outstripped revenue receipts almost continuously from 1985-86 to 1998-99 barring two years (1996-97). The important implication of growing revenue deficit was that the unit cost of public sector services

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20 These poles are Ahmedabad, Vadodara, Bharuch, Surat, Valsad, Rajkot, Jamnagar and Bhavnagar.
rose and interest liability increased due to financing revenue expenditure with borrowed funds. This method of financing revenue expenditure further increased public debt. To improve tax revenue-income ratio, Gujarat has initiated certain tax reform measures. Moreover Gujarat’ tax performance is based on the tax deepening rather than on base widening. Looking at the expenditure pattern, it reveals that interest liability recorded a high growth of 22.15 percent p.a. during 1978-91 and it has increased burden for financing revenue deficit. Also, explicit budgetary subsidies share shot up almost one-tenth of Gujarat’s revenue expenditure.

The research on financing pattern of Gujarat brings following outcomes. First, the non tax sources have not received the attention of government of Gujarat as a source of revenue. Second, there is a considerable effort for resource mobilization from some of these sources and expenditure reduction. Third, there is a long prevailing practice of providing public services at very low or at no price. Fourth, interest, salaries, subsidies and wages are four downward rigid items of expenditure as they together accounted for 84.3 percent of Gujarat revenue expenditure in 1997-98. Fifth, with current expenditure crowding out capital expenditure gross capital formation as per cent of GDP was no more than 5 percent in 1980-81 has gradually dropped to less than 2 percent in 1996-97. Sixth, the net availability of loans has declined to 37.70 percent in 1997-98 from 51.19 percent in 1995-96. Seventh, the interest rate at which Gujarat has borrowed funds from the centre moved up to 12.55 percent in 1997-98 from only 6.85 percent in 1986-87. It is even higher for internal debt inclusive of market loans and those from public account.

The formulation of an effective industrial location policy requires an understanding of factors inducing locational in industrially backward regions. In a paper titled, “Inducing industrial location in backward regions: A study of Maharashtra and Gujarat”, Paranjape Jyotsana (1988) has attempted to analyze such factors in case of Maharashtra and Gujarat. The paper states that industrial location policy in Gujarat has been targeted more towards attracting industry away from Maharashtra and towards Gujarat. Rather than this policy, it must target towards backward locations in particular within the states. Industry has been discouraged from locating near towns and in some banned areas to limit urban congestion. At the same time entrepreneurs have been motivated to establish units in growth centers and a number of talukas (mainly those with large tribal population) have been declared backward and eligible for special incentives by the state government.

Gujarat and Maharashtra have offered almost similar package schemes of incentives. Because of these schemes, the change in regional pattern of industrial development has begun from 1980s and because of it industries are now increasingly being located in newer centers such as Vapi in Valsad district, Ankleshwar in Bharuch district and Halol and Kalol in Panchmahal district. Author used correlation analysis and causal method to identify the variables which have a significant bearing on the location of industrial activity at the district level. The dependent variable was the addition to industrial employment in districts of Maharashtra and Gujarat during 1970-71 to 1980-81. The independent variables selected for the study were; initial level of industrial employment, cost-output ratio, labour productivity, capital productivity, transportation index, index of amenities, consumption of electricity per capita, government assistance, industrial credit etc. The result of the correlation matrices proves that the incremental

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21 After taking care of interest and repayment of principal.
22 Measured by net value added per person employed
23 Measured by net value added per unit of productive capital
industrial employment in a region is positively related to initial level of industrial employment in the region.

It was also found that incremental industrial employment in a region appears to be influenced by economic efficiency of already existing industrial units in various regions. Also, industries could attract more industrial activity where costs of production in industrial sector were lower, and labor productivity was higher. However, this relationship was proved significant only in Maharashtra. Transportation index and per capita consumption of electricity were positively related to incremental industrial employment and correlation coefficient was found significant for Gujarat. Incremental industrial employment was strongly related to government assistance in the form of subsidies, industrial credit per capita. This relationship was found statistically significant in major parts of Gujarat and Maharashtra except Mumbai.

Research paper by Streefkerk Hein (1981), titled, “Too little to live on, too much to die on: Employment in Small Scale Industries in rural south Gujarat” has tried to address working conditions and labour relations in small scale industries of south Gujarat. The study focuses light industries of sub-district of Bulsar (Valsad). The study has covered transition from artisan to industrial production. The paper concludes that wages given to labors are substantially lower than those paid for similar works in the municipal and federal government sectors. Also secondary benefits given to workers in the municipal and government sectors are much higher than those offered to workers in the industrial area of Bulsar. The paper reveals that most of the predominantly unskilled workers in light industries of Bulsar are among the poorest paid in South Gujarat. However financial position of such workers is somewhat better than those of casual or agricultural laborers.

The literature review undertaken and presented above facilitated finalizing specific methodology and objectives of present study. The same has been presented in detail in the following chapter.