CHAPTER II

REVIEW OF LITERATURE

2.1 Introduction

2.2 Books

2.3 Articles in Journals, Periodicals & Books

2.4 Articles in Leading News Papers & on the Web

2.5 Reports, Speeches, Papers & Theses

2.6 Summing up
CHAPTER II
REVIEW OF LITERATURE

2.1 Introduction

Inflation has been a widely discussed topic in economics. Several theories have been put forward to explain the nature & causes of inflation. Some theories attribute the phenomenon of inflation to purely monetary factors, while others ascribe it to factors like increase in cost of production resulting from rise in wages and profits and structural factors in the economy.

Based on the causes of inflation, several types or theories of inflation have been developed by economists. The first such theory of inflation is the demand-pull theory of inflation, which attributes the inflation to excess demand relative to supply. According to Monetarists, led by Milton Friedman, excess demand is the direct result of the increase in the stock of money. It is the growth in money supply that is solely responsible for the inflation (i.e. growth in price level) in the economy. Friedman, thus, states, inflation as always and everywhere a monetary phenomenon.

The Keynesians, on the other hand, deny the direct influence of growth in money supply on inflation and argue that it is not the money supply, but the money expenditure that influences the price level. According to them, money supply is one of the many factors that exert influence over price level, and its influence on the price level is only indirect through its effect on rate of interest.

Don Patinkin, a neo-Keynesian, however, puts forward a different view regarding the influence of money supply on price level. In his opinion, influence of change in money supply is passed forward
to the price level through the changes in real balances (real balance effect). Any increase in money supply will raise the real balances of the people, making the actual level more than the desired level. Consequently, demand for every commodity rises relative to its supply and the resulting excess demand in all the markets pushes the price level upward and brings the real balances to the desired level. The impact of change in money supply on the price level, direct or indirect, is an area of dispute.

Another source or cause of inflation, as explained by the cost-push theories (also called sellers’ or mark-up theories) of inflation is the autonomous increases in the important components of cost of production. These theories attribute the phenomenon of inflation to the increase in wages, profits and material prices, all of whom constitute the cost of production. The increase in the cost of production is passed on to the customers in the form of higher prices leading to inflation.

The structural theory of inflation, as developed by Myrdal, Streeteen and several other Latin American economists, attributes the phenomenon of inflation to structural factors or rigidities, generally found in less developed countries. By structural factors or rigidities causing inflation, the structural theory refers to the resource gap (investment > savings), the food-shortage problem resulting from the monsoon dependent agriculture, the foreign exchange scarcity making the imports difficult and the infrastructural bottlenecks. All these structural factors, according to the structural theory of inflation, are the real causes of inflation in less developed countries.

Inflation being a long term problem in India, lot has been written about inflation explaining the nature, causes and consequences of inflation in India. In this chapter, an attempt has been made to review
the available published literature on inflation in India. The literature for review is mostly drawn from the books, articles in leading newspapers, periodicals and journals and reports of the Reserve Bank of India etc.

The review of literature carried out is divided as under:

1. Books
2. Articles in journals, periodicals and books
3. Articles in leading newspapers & on web
4. Reports, speeches, papers & theses

2.2 Books

Sir B. Rama Rau\(^1\) discusses the course of monetary policy in the context of inflation in India during and after the Second World War. He makes mention of the inability of the Reserve Bank of India in controlling the inflationary pressure, built up during the war and post-war period, on account of little control it had over the basic causes of inflation. The two causes of inflationary price spiral experienced during the war and post-war period, according to him, were 1) the failure of the rate of production, especially of food grains, to keep pace with the alarming growth of the population and 2) deficit financing and other govt. policies which caused the supply of money to increase with the population.

He, by discussing the steps taken by the Reserve Bank through monetary policy, calls for caution in the matter of deficit financing for combating inflation.

Vakil, C.N.\(^2\) describes the devaluation of rupee in 1966 as Prayashchita (Penance) for the past sins of the govt. of India, which
resulted in price rise in the country and forced it to devalue the rupee as a corrective step. The factors, according to him, responsible for the continuously rising prices in India were plan expenditure on projects involving long gestation periods, increasing deficit financing, wasteful expenditure & price controls.

He makes an attempt to explain in a simple language the background and implications of the devaluation of rupee to the people and suggests a handful of measures to avoid inflationary price rise and recourse to devaluation.

S.K. Taneja³ discusses the problem of falling rupee, devaluations of 1949 and 1966 and the factors responsible thereof. He attributes the weaker rupee during the post-independence period to continuously rising prices. He maintains that the inflation was the biggest single problem before the Indian economy and other major economic ailments had their roots in it. According to him, prices scaled higher and higher peaks since second five year plan and by 1968 they became twice as high as they were nearly a decade and half ago. The result, he opines, was the continuous fall in the value of rupee, which was worth only 12 paise by 1968. He thus called for a fresh approach from the govt. to arrest rising prices so as to strengthen the rupee.

Rao, V. K. R. V. & Others⁴ have discussed the inflation problem of the Indian economy around 1972-73. They touch upon various aspects of inflation including its emergence and persistence, aggregate demand and supply in the economy, causes, the effects and the policy measures envisaged and adopted by the govt. of India.

The main causes of inflation identified by them include growth in public expenditure with a resulting expansion in money supply, a
fall in aggregate real supplies, wrong mix of anti-inflationary policies, economically ill-conceived controls and black money leading to a parallel economy.

They did not stop by just identifying the causes of inflation spiral experienced during the early 1970's, but made policy suggestions so as to curb the inflationary pressure in the economy both in the short and long run. The important suggestions made by them include check over growth in money supply, increase in the production, particularly of agricultural goods, resort to safe deficit financing, using economic logic while practicing price controls, realistic policy for procurement & distribution of food grains, encouraging competition in industrial sphere so as to increase industrial production, etc.

Their analysis of inflation and its causes, though pertains to the early 1970's, is applicable to all the inflationary spirals that India has gone through in the post - independence period.

Hajra, S.\textsuperscript{5} presents an analysis of inflation and contributing factors in Indian economy for the period 1951-52 to 1973-74. His study estimates the quantitative significance of monetary and fiscal variables in contributing the inflation during this period. He ascribes the problem of inflation to the wrong design and implementation of planning, besides too much growth in money supply.

On the basis of the results of the study, he works out monetary and fiscal disciplines that must be followed during the future plans for realizing the objective of growth with price stability. Essentially, the study calls for a fundamental change in the planning strategy and recommends the first five year plan type of priority where adequate emphasis was laid on the development of agriculture and rural sector.
Brahmananda, P.R.\textsuperscript{6} attempts to present a comprehensive account of inflation, discussing mainly, the nature, origin, causes, consequences, and control-techniques of inflation, particularly from the angle of poor economies like India. His approach is both theoretical as well as empirical. His work consists of 47 chapters, divided into 6 parts. Parts I discusses the general background of inflation in the context of developments in the international economy. Part II contains a detailed presentation and discussion of the different theories of the determination of the price level. Part III discusses the links of inflation, under particularly the typical conditions of India, with production, production structure, unaccounted income, distribution, saving, interest rates, deficit financing, exchange rates, etc. Part IV presents the control techniques of inflation. Part V describes the long period comparative experience of several developed and developing countries with special reference to the connection between inflation and growth. Part VI presents major conclusions. The main argument contained in his book is that the inflation is essentially the result of imbalance or disproportion between the rate of growth of stock of commodities essential for production and the rate of growth in money supply.

Mithani, D.M.\textsuperscript{7} considers inflation as an intricate problem of the Indian economy. He maintains that the Indian economy has been caught in the cobweb of the inflationary price spiral since the second five year plan barring few exceptional years. Therefore the important goal of price stabilization has been vitiated notwithstanding the conscious and sincere efforts made by the monetary authorities in dealing with the problem.
According to him, Indian economy is basically an inflation prone economy and the wrongly pursued monetary and fiscal policies add fuel to the fire and make the situation worse. He states, “In our economy, demand pull inflation begins when the aggregate supply fails to keep adequate pace of growth or its growth rate declines owing to natural and structural constraints. This gets further momentum when organized labour succeeds in securing higher wages through high dearness allowance and pay revision. In the industrial sector such a rise in wage bills reflects upon costs, breeding cost push inflation. In the government sector, it amounts to additional non development public expenditure inducing further deficits and deficit financing for the exchequer”. The deficit financing through credit extension by the Reserve Bank to the govt. places additional purchasing power in the hands of the people, which when spent, induces further demand pull inflation in the economy. Eventually, a vicious circle of demand pull and cost push inflation in an overlapping manner of a cumulative nature develops in the economy. To break out of the vicious circle of inflation, he calls for the design and implementation of a well co-ordinated monetary-fiscal policy mix, adequately supported by other macro economic policies such as income, exchange rate, trade, industrial, agricultural employment and population.

Jadhav, Narendra, in his study of interrelationship between govt. deficit, money supply and inflation, using a macro-econometric model, examines the applicability of self perpetuating process of deficit-induced inflation and inflation-induced deficits suggested in the literature relating to the Indian context.
He makes the mention of Aghevli-Khan hypothesis which says that “government expenditure adjusts more rapidly than receipts to a given change in price level and, as a result, inflation widens the fiscal deficit leading, through the central bank financing, to larger money supply exacerbating inflation further”. So the inflationary process in developing countries becomes self perpetuating in which govt. deficit induces inflation and inflation, in turn, induces govt. deficits.

The macro econometric model of govt. deficits, money supply and inflation presented by him using Indian data for the period of 1970-71 to 1987-88, supports the hypothesis of inflation induced deficits in the Indian context.

Reddy, Y.V. states that India’s record of inflation for the period 1950-51 to 1997-98 has been satisfactory, with the average rate of inflation working out to 6.7 per cent and the modal value of distribution of inflation rates lying in between 5 and 10 per cent. According to him, the inflation rate in India has also been far less volatile than in most developing countries, with standard deviation at 6.6 and the rate crossing the 15 per cent mark on only four occasions during the last half a century or so. He however maintains that high pressures of inflation were felt on almost all occasions, due to exogenous shocks such as oil price like, the gulf crisis and wars and domestic supply shocks such as adverse monsoon conditions. He also opines that the impact of monsoon conditions on volatility in prices is getting increasingly moderated perhaps due to the expansion of irrigated agriculture as also buffer stock operations.
Mahajan, Dhanashri Jayant\textsuperscript{10} presents an overview on inflation in India since 1956-57. She maintains that, the rate of inflation causes concern in a country having high levels of inequality of income. By presenting the data on inequalities in India, she insists on special attention to the problem of inflation. She also makes some suggestions for combating inflation. She, by citing the views of Paul Krugman, Sukhamoy Chakravarthy and C. Rangarajan, opines against absolute price stability (i.e. zero rate of inflation) and suggests a rate of inflation of around 4\% as acceptable.

\textbf{2.3 Articles in Journals, Periodicals & Books}

Gupta, Raj Narain\textsuperscript{11} discusses the link between deficit financing and inflation and concludes that it is one of the reasons of inflationary price rise in India. He maintains that deficit financing is not the only villain in an inflationary situation. According to him, a study of breakdown of the wholesale price index shows that the price rise occurred mainly in the food grains sector and not in manufactured or semi manufactured articles. And the price rise in the food grains category is the result of poor crops, coupled with a rise in population and rise in the standard of living of the people. He expresses the need for utmost caution to be taken while resorting to deficit financing, but states that the real solution to the problem of inflation lies in greater production. By mentioning the precautions to be taken to prevent deficit financing led inflation, he concludes that control over inflation can be attained if certain conditions are fulfilled.

Panandikar, D.H. Pai\textsuperscript{12} presents an anatomical view of Indian inflation by distinguishing between demand pull and cost push inflation as found in agricultural and industrial sector respectively. He
opines that the price rise normally begins with an excess demand for food leading to food inflation. If the Food Corporation of India fails to unload sufficient stock at right time and the govt. to effect adequate imports, the food inflation accentuates and pushes up the cost of living with which wages are closely linked, industrial costs are consequently driven up and what follows is a rise in the prices of manufactured goods.

He, by presenting a formulae for price determination of food grains, identifies four important factors responsible for causing overall inflation in the economy. They are 1) an increase in the income of non-agricultural sector leading to increase in food demand, 2) increase in money supply having the same effect of increasing demand for food 3) a fall in the production of food grains and 4) a fall in imports or rise in stocks with govt. and traders. A meaningful solution to the inflation problem, as he suggests, lies in enlarging the food supply.

Dhar, T.N.\textsuperscript{13} provides a perspective on behaviour of prices in the post 1972 period by analyzing the trend since 1966-67. He maintained that the price spiral had been undoubtedly enlarging its orbit, there was no danger of it getting out of control and touching the sky heights. He accepts the inevitability of a price rise when developmental programmes are being implemented, but calls for a judicious mix of policy measures including curb over the growth in money supply, check on speculation and increase in production to avoid price rise spirals.

Gupta, R.N.\textsuperscript{14} admits that a normal dose of price rise of about 3 to 5% per year is possible in the economy as a corollary of development. According to him, there is an inescapable price which people must pay
for massive planned investments in capital goods projects with long gestation periods. With the ever increasing money supply in the economy and slow growth in the availability of consumer goods, prices tend to go up.

After reviewing all the causes of spiraling rise in prices around 1972, and suggesting possible remedies for control, he makes a case for reliance on own savings to step up the rate of investment.

**Raj, K.N.** ¹⁵, elaborating the inflationary price rise that occurred around 1972-73, makes an attempt to reach to the real causes of inflation in India. According to him, though it is always made out that monetary expansion more than the growth in supply of goods and services that is responsible for inflation, it has not been undisputedly established. The real problem lies in the imbalance that exists in the food grains and raw material sector and therefore it is here that all attention should gather instead of running budget surpluses and controlling lending to the govt.

**Vakil, C. N.** ¹⁶, in an inaugural address delivered at a seminar on “inflation in India", held reckless expenditure and resulting budget deficits, financed through creation of money, responsible for the inflation in India. He criticised the Indian policy makers for misinterpreting the Keynesian idea of using deficit financing for curing recession and applying it in India without any serious thought being paid to its suitability to Indian situations. According to him, resort to deficit financing is not inflationary in an advanced industrial society in a state of depression because of unutilised capital stock and skilled labour anxious to work. The new demand created by deficit financing
meets with the supply of goods made possible by the utilisation of the underutilised capacity and thus ceases to be inflationary.

Applying Keynesian Theory in developing countries, according to him, is fallacious. In this regard, he stated, "such Keynesian method of deficit financing has been accepted as a creed for economic development in developing societies like ours. The fallacy in this concept is that those concerned have not realised that in a developing country the time lag between production of goods and the additional money supply would be much greater and it would inevitably lead to rising prices".

The suggestions that he makes at the end of his address aim at boosting production, particularly of wage goods and countering inflation and pertain to investment policy, management policy, labour policy, monetary & credit policy, public & private expenditure, tax evasion, black markets, corruptions and formation of economic council.

Krishnaswamy, S. Y.\textsuperscript{17} opines that five year plans are the root causes of inflation. He holds the plans responsible for growing imbalance between money supply and goods produced. The planning that emphasises the development of the mother machines that make other machines and the required heavy investment with an elephantine gestation is one of the root causes of inflation in India. He therefore calls for the reorientation of planning. He also discusses the limitations of monetary policy instruments such as bank rate, reserve requirements etc. in controlling inflation.

Rao, B.S.R.\textsuperscript{18} makes an attempt to study the relationship between the changes in money supply and variations in price level for the period 1950-51 to 1972-73. For the study he uses data on monetary stock,
national income at current and constant prices (1961-62 prices), wholesale and consumer prices. Based on his study, he concludes that, “although there is some influence of money stock on prices, there is no enough evidence to suggest that the changes in prices during the period of more than two decades can be solely or mainly explained by the money stock fluctuation. The proportionality hypothesis of the pure quantity theory has not been indicated by the Indian data”. He further states that it is not possible to segregate the impact of growth in money stock and output on prices. His study however generates some evidence to suggest a dampening effect of an increase in output on prices.

He, however, cautions at the end that the observations of his study do not imply that an unrestrained and continuous increase in money supply without taking into consideration the prevailing economic forces, would not have an adverse effect on the price front.

Gupta, Suraj B. 19, elaborating the role of food shortages in inflationary price spirals in India, puts forward a new hypothesis called hypothesis of food shortage inflation, as a variant of cost-push inflation. He explains how food shortages resulting from natural calamities like floods, droughts etc. lead the prices of food articles to inch up in the economy and how increase in food prices causes increase in non-food prices. He puts forward a spread mechanism involving different stages, which ensures the spread of food price increases to non-food prices.

He, however, maintains that food shortage inflation can not sustain itself beyond a point unless there is a validating increase in the money demand for output which is possible only with increase in the stock of money. Therefore, food prices are not raised (i.e. food shortage inflation) only by an autonomous fall in the supply of food,
but they also inch up due to one more factor and that is, excess aggregate money demand for output. He thus goes on to say that general level of prices can be maintained, that is, an all round inflation can be avoided, if the supply of money is regulated. In his words, “for controlling inflation money demand for output must be controlled. And for the latter, the supply of money must be controlled.” Finally, he says, for controlling/avoiding excessive increase in the supply of money, heavy deficit spending by the govt. must be controlled/avoided, as the former is found to be the result of latter in almost all inflations under paper currency standard.

Simha, S.L.N. makes an attempt to study the link between black money and inflation. He examines to what extent black money contributes to inflation or whether in fact it is a result of inflation. According to him, the phenomenon of black money is, by and large, the result of inflation and not its cause. He thus disproves the thesis that black money is the cause of inflation and presents the proposition that black money, if anything, is a result of inflation which is caused largely by wrong fiscal, monetary and economic policies, and aggravated by administrative inefficiency, poor planning, lack of a sense of discipline and austerity and a general lowering of standards of vigilance at all levels.

He maintains that it is the deficit financing by the govt. that creates a situation of excess demand for everything in relation to supplies and thus results in inflation and payments in black money.

Simha, S.L.N. explains the impact of govt. borrowing from R.B.I., commercial banks and non banking sector on money supply and inflation. The main conclusions that he reaches from his study are: i)
govt.’s borrowing from the RBI (i.e. RBI investment in govt. securities) is doubly inflationary. In other words, it increases money supply not by the amount of investment by RBI in govt. securities, but by something more. ii) govt.’s borrowing from the commercial banks (i.e. commercial banks investing in govt. securities) is also inflationary as it increases the money supply by the amount of investment. iii) borrowing by the govt. from the non banking sector (i.e. non banking sector’s (household & corporate sector) investment in govt. securities) is however, non-inflationary, as its impact on money supply is neutral.

Upadhyay, K.S.\textsuperscript{22} criticises the popular view which considers deficit financing as inflationary and public borrowing as anti-inflationary. According to him, borrowing could be highly inflationary, while deficit financing could turn out to be disinflationary. It all depends, not on the source of expenditure or the level of expenditure, but on the pattern of expenditure.

In his opinion the objective of maximum growth with stability can be achieved by designing planning in such a way that a proper balance is maintained between the inflation creating and inflation dampening types of investment. To this end, he suggests a ‘disparity tax’, which supports, encourages and rewards investment and consumption in right direction and discourages and penalizes investment and consumption in the unwanted lines.

Iyengar, A.V.N.\textsuperscript{23} attempts a review of inflation in terms of both wholesale price and consumption price inflation, along with the causal factors leading to significant rise or fall in inflation, during the period of first four five year plans. After tracing the variation in inflation based on wholesale price index and consumer price index during this
period, he underscores the importance of agriculture in the process of inflation. He maintains that fluctuations in agricultural and particularly in food grains production have much to do with inflation in India. And therefore, instead of relying on short term demand management through fiscal and monetary measures, a more lasting solution, according to him, would be one of augmenting the supply of essential commodities by providing necessary impetus for sustained increase in production and ensuring proper distribution of the same. To achieve these objectives, he calls for reorientation of the investment policy so as to change the structure of production in consonance with the emerging structure of demand.

Awasthi, S.K. discusses the concept of sellers’ inflation and whether Indian inflation is of that variety or not. He distinguishes the cost inflation from seller’s inflation and attributes the latter to rising demand for money of sellers to inflate their profits. According to him, sellers’ inflation can be sustained without a rise in money supply, if the velocity of circulation increases because of rise in consumption expenditure at the cost of savings. However, this process cannot go on indefinitely. It collapses when the volume of sales in real terms declines in proportion to the price rise and the economy goes into real depression with rapidly falling prices and increasing unemployment.

In his opinion, sellers’ inflation in India continued because of the ambitious investment programmes of the government which caused enormous growth in money supply through deficit financing. The deficit financing provides the money needed to make purchases at higher prices and justify the hopes of the sellers who proceed to increase the prices still further.
Jha, L.K. attributes the inflation in India to the gap between demand and supply, which is typically caused by a sharp drop in supplies rather than an upsurge in demand. He explains how an acute shortage of food stuffs as well as of key industrial raw materials, resulting from the failure of monsoon, initiates a price rise, which is followed by monetary expansion on account of outlays on draught relief and increased dearness allowance to the govt. employees, widening the budget deficits. Money wages of industrial workers go up to compensate for the increase in cost of living further pushing up the costs and prices.

According to him, money supply growth is often the effect and not the cause of inflation in India. He also maintains that it is however difficult to distinguish between the cause and effect once the inflationary spiral starts. The price trend according to him can be reversed not through fiscal and monetary curbs, but by making a massive effort to augment the stream of supplies, particularly the supplies of basic essentials like food stuffs.

Bhinda, P.C. and Choudhary C.M. elaborate the causes and consequences of inflation in India. Among the causes they include factors like large increase in volume of money expenditure, distortions in the price and supply mechanism, deficient supplies of agricultural and industrial goods and power and lack of administrative efficiency and public co-operation as responsible for inflation.

The consequences that follow the inflation, according to them, are widening inequalities of income and wealth, erosion in the value of money, entry of large proportion of women and children in the labour market to maintain the standard of living leading to increase in their
exploitation and retardation of their mental and physical growth and resort to unethical and illegitimate practices by the people. They draw special attention to the erosion of moral values which have occurred due to inflation over the last four decades.

Singh, Balwant\textsuperscript{27} challenges the proposition that changes in the price level are primarily the result of changes in the rate of growth of money. He, using the data on broad money (M3) and movements in the wholesale price index, reaches a conclusion that “in the Indian setup, there is a bi-directional causality between money supply and prices. However, the impact of money supply (M3) on prices (WPI) is less significant in terms of granger causality tests. This suggest that the causality between prices and money supply is of certainty in nature, i.e. rise in prices invariably leads to rise in money supply. As against this, the rise in prices may not be always due to the rise in money supply”. In his opinion, in the Indian conditions much of the variation in prices is due to structural influences, e.g. crop failures, commodity shortages, administrated pricing policies etc. rather than a result of monetary operations only.

Rangarajan, C. and Arif R.R. \textsuperscript{28} offer an econometric model for the Indian economy, which explains the interrelationship between money, output and prices. The model links the monetary and the fiscal sector and allows for the stock of money to vary endogenously with fiscal deficits. The empirical results arrived at indicate that the price effects of an increase in money supply are stronger than the output effects. During a period of continuous price rise, the gap between income and expenditure of the govt. widens, as the latter is highly elastic with respect to inflation than the former, warranting increased monetization,
which in turn further leads to increase in inflation, thus starting a vicious circle of high inflation, high deficits and high monetization.

Sengupta, Keya\textsuperscript{29} studies the relationship between procurement prices, food grains prices and inflation in India. According to her, procurement prices that are fixed by the govt. from time to time play an important role in determining food grain prices and given the importance of the food grains sector in the Indian economy in terms of employment and output, food grain prices determine the course of general level of prices. Her study for the period of 1981-82 to 1990-91, reveals that the general price level follows the movements in procurement prices, with most of the oscillations in the latter appear to be causing similar oscillations in the former. She expresses concern over the frequent hikes in procurement prices without any sound economic criteria, as they can distort the entire price structure and have disastrous consequences in terms of aggravating the balance of trade problem.

Ummat, R.C.\textsuperscript{30} discusses the problem of inflation around 1991-92 in India and the factors responsible for it. He maintains that inflation continues to be one of the major concerns of the country and attributes upsurge in it around 1991-92 to factors like more money supply, Gulf crisis pushing up the prices of petroleum products, devaluation of the rupee resulting in higher import costs, significant increases effected in the prices of fertilizers, coal, food grains, supplied through PDS and stepping up of power rates and tariff increases in telephone and other services sector. Elaborating the steps taken through Union Budget 1992-93 in brief, he concludes that it is well designed to combat inflation.
Shankar, Shyiashri appreciates the budget of 1992-93 for taking right steps to suppress the inflationary rise in prices, that began in October 1990 and assumed serious proportions in 1991 on account of the reasons like large monetisation of budget deficits, gulf problems, poor kharif and rabbi crops and inadequacy of foreign exchange reserves to import essential commodities. Revamping of the public distribution system, drastic cut in fiscal deficit, reduction in SLR, built up of foreign exchange reserves and such other steps initiated through budget of 1992-93, made her conclude the budget to be promising and capable of bringing the inflation under control.

Ghoshal, M.K. presents a review of inflationary situation during the period of 1990 to 1992. He elaborates both the demand pull and cost push factors that were at work in causing a cumulative price rise of around 25.7% during 1990-92. He attributes the accelerated inflation since October 1990 particularly to the excess demand caused by undue monetary expansion in the past. Citing the examples of Germany and Japan as booming economies with remarkable price stability, he lays stress on macroeconomic management to correct basic imbalances and on modernization of the economy through technological innovations and entrepreneurial leadership. He hopes the economic reforms and the strategic liberalization initiated since 1991 to improve the price scenario in the medium term.

Sinha, Surojit explores the possibility of a correlation between the government budget deficits and inflation in India, by using the data for the period of nine years from 1987 to 1996. He finds no positive correlation between the two and therefore concludes that budget deficits are not inflationary in India. According to him, in fact a
negative correlation exists between budget deficits and inflation in India. He also studies the impact of debt/bond financing of budget deficit on inflation. According to him, the conventional wisdom says that debt financing of budget deficits is supposed to be inversely related to the inflation rate. In other words, if debt financing is preferred to money financing, the inflationary impact of budget deficits is not observed. However, what he finds in Indian case is contrary to the conventional wisdom, that is, debt financing of budget deficits being positively related with inflation.

**Dr. P. Arunachalam and Dr. K.C. Sankaranarayanan**\(^{34}\) underscore the importance of price stability in the context of openness and liberalization of the Indian economy. They by juxtaposing the inflation and GDP growth data, discuss some of the causes responsible for the inflationary rise in prices in India in the post-liberalization period. In their view, problems with the supply of agricultural goods, increasing speculative hoarding of essential commodities in the wake of govt.’s widely published intention to dismantle the PDS, implementation of Fifth Pay Commission recommendations and payment of lump sum arrears to employees, hike in petroleum product prices and monetary expansion, were the main reasons behind the rise in inflation around 1998. They urge the govt. to moderate the monetary growth and keep the inflation rate at around 6%, as “a low and stable inflation rate helps the poor, encourages the investment climate and attracts foreign savings”.

**Guha, Kalyan**\(^{35}\) describes the connection between growth and inflation. According to him, the growth momentum in the economy is very much likely to generate some inflationary pressure and this is
particularly true in case of emerging economies. He believes that the effect of rising prices gets neutralized through faster growth rate and therefore considers the later to be a panacea for tackling the former.

**Sethuraman, S.** explains the build-up of inflationary pressure in 2004-05 and ascribes it to output shortfall resulting from deficient monsoon and soaring international oil prices.

Underscoring the role of international oil prices in determining the price level in India, he states that with increasing integration with the world economy, India can not remain immune to external shocks. Expressing the outlook for 2005-06, he maintains that, though the foreign exchange reserves are comfortable to meet contingencies, we need both a normal monsoon which would strengthen the agriculture to obviate cyclical shortages of commodities and timely fiscal and monetary measures to minimize the impact of shock, internal or external.

**Pattnaik R.K. and Samantaraya Amaresh** offer a complete record of inflation in India since 1951 until 2004-05. Their study reveals that the inflation increased from the 1970’s onwards before moderating in the mid 1990’s. The major contributory factors to higher inflation, according to them, were supply shocks, emanating from a setback in agricultural production and international oil prices, and monetary expansion due to automatic monetisation of the fiscal deficit. Since the second half of the 1990’s, however, there has been better monetary management, made possible by the reform initiatives since the early 1990’s for developing a broad based financial market, particularly activation of the govt. securities and forex markets and the improved monetary-fiscal interface. Moreover, better supply management
through buffer stocks of food grains and import of sensitive commodities have helped in mitigating the impact of supply shocks. They also show that the monetary management was effective in reducing the inflation rate and lowering inflationary expectations, under the difficult conditions characterized by unprecedented increase in the amount of capital inflows.

Chakravarthy, Sukhamoy\textsuperscript{38} considers inflation as the single most important problem before the country, which if not controlled won’t let us move towards the attainment of our basic objectives of poverty eradication and self-reliance. He refers to the possible causes of inflation that have been identified in literature, but express the need of proper understanding about how these causes interact amongst themselves, before making predictions about course of inflation. In his opinion, the genesis of inflation problem in 2007 lies in the area of food production, which often exhibits erratic behaviour and becomes responsible for food inflation which later or sooner spreads to other sectors of the economy. For combating inflation, he calls for the use of an appropriate mix of monetary and fiscal policies as also mobilization of resources from agriculture through taxation.

Patnaik, Prabhat\textsuperscript{39} discusses the use of budget in controlling the inflation with special reference to the Union Budget 2007-08 and describes it a complete failure, as it doesn’t respond to the social needs of a situation of profit inflation. Describing the failure of budget 2007-08, he states that it should have transferred more resources in the hands of weaker and the resultant increase in public expenditure should have been financed through taxes on private profits. For addressing the
problem of profit inflation, he calls for concerted attack at the basic cause through revival of agriculture.

**Pulapre, Balakrishnan**\(^{40}\) discusses the relationship between growth and inflation and makes a general proposition that no definite relationship exists between the two. According to him, the relationship between growth and inflation is conditional on several factors like degree of openness of an economy, the nature of wage determination and the level of competition in the product market.

Underscoring the importance of agricultural growth in deciding the relationship between growth and inflation, he states that high GDP growth can co-exist with low inflation if agricultural sector registers faster growth and low GDP growth can accompany high inflation if agriculture registers poor growth. Referring to the upsurge in inflation in 2007, he pinpoints food sector as the area of weakness. He opines therefore that the food sector should get proper attention and efforts should be made to increase the production, as it is neither inconsiderable nor insurmountable.

**Pant, Devendra Kumar**\(^{41}\) makes an attempt to study the nexus between inflation, growth and poverty and maintains that though the economic growth has been strong during 2005-06 to 2006-07 period, its effect on poverty reduction, which was seen during 1993-94 to 2004-05 period, has not been observed mainly on account of the high inflation. And according to him, this is particularly true about rural poverty and the main reason has been the slower growth of the agricultural sector.
Sharma, Devinder\textsuperscript{42} considers the speculation as primarily responsible for the upward movement in the prices, particularly that of food stuffs in 2007. He criticizes the govt. for blaming the inflationary price rise on the supply inadequacies and states that it is an attempt to divert the attention from the ground realities. He maintains that it is the activities of retailers and hoarders that are driving the prices up and the govt. cannot do anything about it as it has lost control over them with the dilution of the Essential Commodities Act.

Rajwade, A.V. \textsuperscript{43} discusses the efficacy of monetary policy in controlling inflation and particularly when the primary driver of inflation is inflation in primary articles category. He argues that monetary policy can do little if the source of inflation is the category of primary articles. He also argues against the use of monetary policy to keep inflation at low level so as to spur growth. According to him, it is somewhat simplistic to assume that low inflation leads to better growth. In his opinion, low inflation does not necessarily lead to high growth. He supports his view point by citing the example of Japan, which experienced low inflation for a quite long period, but could not see its growth pick up.

He concludes by saying that he doesn’t argue against use of monetary policy to control inflation, but prefers it to be used when price instability reaches high levels and starts hurting investment and growth and is coming from the sectors where the price levels are susceptible to monetary measures.

Choudhari, Saumitra\textsuperscript{44} underscores the importance of keeping the inflation under control in the context of maintaining export competitiveness of our exports in the world markets. He explains how
India is being hit by a double whammy with relatively high inflation and an appreciating currency in the wake of continuous inflow of foreign capital. For preventing the appreciation of the currency, he suggested resort to sterilization and encouragement to capital outflows and makes a strong case for curbing inflation, as it will help us keep the productivity gains at home long enough to build a strong and competitive economy and to sustain high growth rates over the next 10-15 years.

Deaton, Angus⁴⁵, using the unit values of large number of food articles to compute a price index number that can be compared with the official national price indices, the consumer price index for agricultural labourers (CPI-AL) for rural India and the consumer price index for industrial workers (CPI-IW) for urban India, observes that the food component of the CPI-AL understated the rate of food price inflation for the period from 1999-2000 to 2004-05. He attributes this understatement to the continuation of the outdated weights (from 1983) and to the resultant over weighting of cereals whose prices declined in comparison with other food items. He also maintains that the overall weight of food in the CPI-AL is too large and therefore increase in the general CPI-AL got understated during the period when food prices fell relative to non-food prices. He finds, under conservative assumptions, that the 10.6% reported growth in CPI-AL, should have been 14.3%. The understatement of growth in CPI-AL led to understatement of poverty ratio at 28.3% for rural India, instead of actual 31% for 2004-05.
Batura, Neha\textsuperscript{46} provides a comprehensive analysis of the trend in inflation over the two years of 2006-07 and 2007-08. She offers a neat explanation of as to when the inflation began to accelerate and whether the price rise experienced was across the board or not. She also attempts a comparison of consumer price inflation with wholesale price inflation.

Srinivasan, T.N. \textsuperscript{47} discusses the quality of India's inflation statistics. According to him, the official wholesale and consumer price indices fail to incorporate the new products and changes in quality and therefore give us unreliable inflation data. He suggests for revision of the procedures that are used for collection and compilation of price information as also construction of a new producer price index to replace the official wholesale price index and an annual cost of living index in addition to the existing consumer price index.

Marjit, Sugata\textsuperscript{48} talks about the relationship between the rate of inflation, the real rate of interest and the GDP growth rate and tries to find a statistical association between them so as to derive appropriate implications from RBI’s policy of raising the nominal interest rates with a view to control rise in prices, the policy which meets with lot of comment and criticism from media and business community. The correlation observed between GDP growth and inflation is negative (-0.347) in the post reform period against a positive correlation (0.352) in the pre reform period. It suggests that Phillips curve type relationship existed during the pre-reform period, while it broke down in the post-reform period.
Sthanumorthy, R.\textsuperscript{49} arrives at a conclusion that the inflationary spiral experienced in 2007 and 2008 is mostly driven by the upsurge in the prices of food products of manufactured goods group and not by the one in primary food articles group. Among the food products, edible oils, oil cakes, and dairy products are the biggest contributors to the food price spiral. Primary food articles, cereals and pulses, have had not much to do with the rising prices.

EPW Research foundation\textsuperscript{50}, representing a team of researchers, maintains that the current inflation has not received much needed attention from the govt. and attributes it to both demand and supply side factors. The article observes, alongside the increase in both wholesale and consumer price inflation, increase in uncertainty and risk in the money market with an upward pressure on interest rate. The way suggested for mitigating the inflation risk premium and generating interest in long maturities is to issue a series of inflation indexed bonds with an assured real return in the range of 2 to 3%.

Chand, Ramesh\textsuperscript{51} attributes the current rise in food prices to supply shock resulting from the drought in 2009 and the carry over effect of poor growth in food production in 2008-09. He call for an effective food management strategy to deal with such shocks as their frequency is likely to increase. The other alternatives that he suggests for maintaining price stability include buffer stocks, imports, expansion of storage capacity for various types of food and control over exports to argument domestic supplies of food.

Kumar Rajiv, Pankaj Vashisht and Gunajit Kalita\textsuperscript{52} distinguish the food inflation in India from the upsurge in world food prices during
2007 to 2009. According to them, world food prices cooled down in the latter half of 2008, with aggregate demand falling sharply in the wake of the post-Lehman global recession. However food prices in India, though rose in line with global trend, did not follow the trend downward. Instead, they have registered a steep and sustained increase of around 12 to 15%, which is much sharper than the increase of 3 to 4% recorded for the last episode of drought induced supply shock in 2002-03.

They thus highlight the specific conditions that are responsible for this steep and sustained increase in food grain prices and suggest some remedial measures. In their opinion, “food prices in the immediate future can be controlled only through large imports”. Apart from the imports, cooling food prices requires modernization of agriculture, increase in yield and production and for this they suggest entry of modern retail, both domestic and foreign, in agriculture.

2.4 Articles in Leading News Papers & on the Web

Rangarajan, C. ⁵³, in an interview given to economic times, says that there is no threat of high inflation in India, as they (including him) broke the back of inflation a decade ago. He says “today’s situation is a far cry from the not too distant past when inflation was in double digits. We broke the back of inflation a decade ago. Seven to eight percent inflation used to be the norm earlier and we brought it well below that”.

Further, by stating that any discussion on inflation will be incomplete without referring to the impact of money supply, he calls for a continuous check over money supply growth for restraining any price rise.
Bhusnurmath, Mythili\textsuperscript{54}, elaborating the rift between the central bank and the finance ministry, in a way suggests that many times inflation gets out of control because the finance ministry doesn’t allow the central bank to take the necessary steps (i.e. tighten the monetary policy) to control it.

According to the writer, “there is huge difference between the way elected representative and non-elected central bank governors perceive policy choices. The former prefer placebos, the latter more often than not, a jab-in-the-arm”. In other worlds, the finance ministry for the fear of jeopardizing growth doesn’t permit the central bank to dole out tough medicine against inflation. It is this interference by the finance ministry in the functioning of the central bank, the author appears to be suggesting, that is responsible for high inflation experiences.

Panagariya, Arvind\textsuperscript{55} discusses the surge in inflation around 2008 and the use of every possible instrument by the govt. to tame it. He by comparing annual inflation rates based on WPI, CPI-IW and CPI-AL for latest four decades from 1971, agrees that inflation during earlier decades was much longer than the one during 2000s. In his opinion, the monthly/weekly peaks in inflation should not be a cause of concern to invite all possible measures from the Govt. He states, “aiming a whole host of policy measures at what may be a minor irritant is costly. It distorts incentives and may undermine the entire growth process”. According to him, some inflation in a developing country like India, will always be there. This is because increases in per capita income growth (i.e. developing country characteristic) bring either a rise in the inflation rate or appreciation of the domestic currency, since rupee
appreciation has been resisted in India; some acceleration in inflation is inevitable.

Aiyar, Swaminathan S. Anklesaria argues that the inflation that India and other developing countries experienced around 2008 is not a monetary phenomenon and cannot be curbed by monetary policy. According to him, the inflation observed with respect to food and fuel items (i.e. non-core inflation) is primarily the result of supply side problems and thus monetary policy can do little to control it. Core inflation is however amenable to momentary manipulation, so the European Central Bank, Bank of England and U.S. Federal Reserve System board target not overall inflation but core inflation, that is, prices other than those of food and fuel.

Rajadhyaksha, Niranjan writes about India’s track record of inflation and states that it never had to face the terror of hyper inflation. He cites the case of Zimbabwe, where the annual rate of inflation is nearly 66000% and prices change everyday and sometimes every hour, that its central bank has introduced a 500 million dollar note.

According to him, compared to Zimbabwe, Germany, China, Japan & South Korea, India has fared much better in terms of control over inflation. The highest inflation that India has, ever seen in the past two centuries is 53.8%, in the famine year of 1943. It doesn’t mean that India has always been the winner in the battle against inflation. He writes, India has spent about one out of every eight years with inflation of about 20%. The likes of China, Indonesia, Korea, Myanmar and even Japan have done worse. But Asian economies such as Hong Kong, Malaysia and Singapore spent far less time struggling with 20% plus inflation.
About how the future will pan out in terms of inflation, he writes that much will depend on the policy response. He urges the govt. to be serious about the threat that inflation poses and take stern steps.

_Tuteja, Usha_58, describing the plight of the poor, makes a strong case for controlling food inflation. According to her, failure of trickledown effect of growth, job losses due to global problems of 2008 and continuing food inflation have made the conditions of poor worse and are likely to push them into a hunger trap. She, therefore, wants the govt. to act before the situation gets out of control and not only make sure that poor people benefit from the growth of the economy, but they are protected against inflation, particularly food inflation, as they spend 60-70% of the family income on food related items. Today’s food inflation, in her opinion, is the result of inadequate attention paid by the policy makers on raising domestic production. The long term solution to food inflation, according to her, is the increase in domestic production.

2.5 Reports, Speeches, Papers & Theses

_Govt. of India_59 discusses the trend in inflation in India since 1950 and states that the WPI inflation remained below 7% during 1950’s & 1960’s, but accelerated to touch double digit figures in the first half of 1970’s. Though the inflation moved southward during the second half of 1970’s, it remained elevated until 1995-96. It states that inflation has however remained at a low level from 1995-96 onwards in terms both the 52 week average and point-to-point basis.

_Reserve Bank of India_60 makes an assessment of inflation record of India during the past half century. It that the inflation increased from the
1970’s onwards and started moderating in the mid-1990’s. Large and unsustainable fiscal deficit and its monetization were the primary factors responsible for the higher inflation, maintains the report. It attributes the lower inflation since the mid-1990’s to better monetary management made possible by the structural reforms since19991, improvement in monetary-fiscal interface and reforms in govt. securities market. It also underscores the importance of fiscal consolidation for keeping inflation and inflationary expectations under control.

**Mohan, Rakesh** discusses the role that fiscal & monetary policies have played in India in achieving the objective of economic growth with price stability. He elaborates how both the policies have been used for sustaining growth with stability over the years. He also touches upon the reforms that have been introduced in the fiscal & monetary policy spheres and their impact in terms of growth & stability.

**Mohanty, Deepak** discusses the upsurge in inflation in 2008 and 2009 and states that it is a cause of concern for public policy because of the associated costs. Describing the dynamics of inflation in India, he explains how supply driven increase in the prices of food & agricultural commodities spills over to general price level through its effect on inflation expectations. He therefore underscores the importance of anchoring inflation expectations.

He attributes the current food inflation to factors like low per capita availability of food grains, structural shortage of key agricultural commodities like oilseeds and pulses, rising demand for food grains and the rise in global food prices. According to him, for the success of inflation management through monetary policy, there is an urgent need to
address the issue of structural supply constraints, particularly in agriculture.

Kawade, B.B.\textsuperscript{63} discusses the working of monetary policy in India since 1961. His thesis is organized in eight chapters that deal with the theory of monetary policy, Reserve Bank of India and the various instruments of monetary policy, which were used for achieving the objective price stability. The last chapter presents major conclusions of his study and suggestions for improving the working of monetary policy. The central theme of his study is the analysis of the use of monetary policy instruments by RBI over the study period. He discusses in detail the use and efficacy of instruments like bank rate, CRR, SLR, OMO and selective credit controls in the context of inflation control.

\textbf{2.6 Summing up}

The review of literature presented above reveals that several factors have been responsible for the elevated price level in India. There has been continuous increase in demand due to increase in money supply resulting from the practice of deficit financing, rapid growth in population, urbanization and increase in the income levels. There have also been cost increases resulting from increased wages, profits and prices of various types of materials. More importantly, structural factors like food shortages, high level of desired investment than the savings, import difficulties on account of paucity of foreign exchange reserves and woefully bad state of economic infrastructure, particularly in rural parts are considered to be the originating causes of inflation in India. Several studies reveal that the inflation first begins in the food sector and then gets transmitted to other sectors of the
economy through linkages, causing the general price level to move upward.

It thus appears that structural factors initiate the process of price rise in India and factors like increase in cost of production and increase in money supply only aggravate the situation.
References


