CHAPTER VIII

CONCLUSIONS & POLICY IMPLICATIONS

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8.1 Introduction

This chapter is divided into two sections, section I enumerates the important conclusions arrived at on the basis of this study on “A Historical Analysis of Inflation in India 1935-2005”; and section II makes certain policy recommendations.

8.2 Conclusions

i) India’s experience of inflation has been a mixed bag with some years registering an annual inflation rate of as high as 40%, while other recording a negative inflation.

ii) During last 70 years, beginning with 1939-40, inflation rate was below 6% for 34 years, while for others it was above 6%. If the tolerable rate of inflation is assumed to be 6% and below, then India appears to have fared badly in terms of control over inflation, as for 36 years the rate of inflation was above 6%.

iii) The inflation based on the wholesale price index has varied in a wide range of -12.5% (1952-53) and 38.3% (1943-44). During the period of 70 years, inflation peaked and remained above 20% in the years of 1943-44, 1948-49 and 1974-75 with the inflation rates of 38.3%, 22.6% and 25.1%, respectively. These years of high inflation basically reflect the impact of war, supply shocks resulting from setbacks in domestic agricultural production and external oil price hikes.
iv) The average inflation for the entire period of 70 years works out to be 7.6%, with the modal range of inflation, the range with highest frequency, found to be the one of 3% to 6%.

v) In terms of the decadal inflation rates, the decade of 1940’s turns out to be the one which saw highest average inflation rate (12.63%), while the immediate subsequent decade of 1950’s experienced lowest inflation rate (1.73%).

vi) The volatility in inflation as given by the standard deviation value is found to be the highest (13.9) for the decade of 1940s, while the lowest (1.6) for the last nine years of the new century.

vii) A comparison of inflation rates based on WPI, CPI-IW and GDP deflator over a long period indicates that they have moved in tandem. For the period 1970 to 2009, the average inflation rates worked out on the basis of all the indices appear to be close to 7.5%.

viii) The association as implied in the correlation value is found to be stronger between WPI inflation and GDP deflator inflation (0.91), while that between WPI inflation & CPI-IW inflation and CPI-IW inflation & GDP deflator inflation is found to be slightly weaker (0.85).

ix) The analysis of inflation in phases defined by historical events reveals that it was the first phase (1939-1949) which saw the highest inflation of 15% in annual average terms. The second phase covering the period from 1949 up till 1969 experienced considerable moderation in inflation with the annual average inflation of just 4%. The third phase (1969-1991) however witnessed reversal in the trend of moderation
inflation and recorded an average inflation rate of 8.3%. The annual average inflation (6.7%) recorded for the fourth phase (1991-2009) is well below the one recorded for the previous phase, with significant moderation in inflation being observed in the post 1996-97 period. The analysis in terms of the other indicators of inflation, viz. CPI-IW and GDP deflator, presents the similar picture.

x) Continuous moderation in inflation volatility has been observed with the standard deviation quotient falling from 14 during the first phase to 6.7 during the second, 6.5 in the third and 3 in the fourth phase of the study. This is also true in case of CPI-IW inflation and GDP deflator inflation. Over a long period however GDP deflator inflation appears to be less volatile than the other two indices based inflations.

xi) The high inflation of the first phase (1935-1936) was mainly caused by the World War II and the way it was financed. Besides, the other reasons like wrong interpretation of the situation by the govt. and adoption of measures which propelled inflation, instead of arresting it, as also social tensions borne out of the partition were also responsible for the unpleasant inflation scenario during this phase.

xii) The second phase though recorded a moderation in inflation in annual average terms, there were years in it when the inflation was not within acceptable limits and the main contributory factors were shortfall in agricultural production, adoption of a strategy of economic planning (Nehru-Mahalnobis strategy) which emphasized industrialization and thus entailed huge increase in demand, particularly
investment demand, financed through deficit financing, two
wars with China and Pakistan and the increase in money
supply.

xiii) The unpleasant picture on the inflation front as revealed by
the higher average inflation (8.3%) of the third phase was
largely on account of the intermittent falls in agricultural
production, two oil price shocks delivered by the OPEC
countries and the unbridled growth in public expenditure
financed through creation of new money by the RBI.

xiv) The last phase of the study period throws out a mixed picture
of inflation with both glitter and gloom. The beginning period
comprising five years from 1991-92 to 1995-96 presented a
gloomy picture with the inflation rate averaging 10% per
annum during this period. Monetary expansion of the
preceding period, devaluation of the rupee, problems with the
production of agricultural commodities, a sharp increase in
the procurement prices and hardening of the international
price of crude oil were the main villains in the inflation story
of this period. The period from 1996-97 onwards up till 2008-
09 added glitter to the inflation picture, with inflation drifting
down to just over 5%, reflecting the concerted policy efforts.

xv) A comparison of overall inflation (i.e. WPI inflation) with
the inflation in the major sub-groups of WPI reveals that, the
inflation in the sub-group of food articles was slightly higher
(7 %) than the overall inflation (6.8 %) and also the inflation
in the sub-group of manufactured goods (6.1 %) over a period
of 1953 to 2009.
xvi) For the same period (1953-2009), the highest price rise (8.4%) appears to have taken place in the category of fuel products.

xvii) A comparison of relative contributions of major sub-groups in WPI inflation shows that the sub-group of food articles was the major contributor to the overall inflation in the past, with its contribution of 100% during 1953-1969.

xviii) Over the years, the relative contribution of food articles sub-group in WPI inflation has declined (17% during 1991-2009), while the contribution of other two categories, viz. fuel and manufactured goods has shown an upward tendency, with their shares going up from -1.5% and 1.4% during 1953-1969 to 23.1% and 52.2%, respectively during 1991-2009.

xix) A long term view over the period of 56 years (1953-2009) reveals that nearly half the inflation during this period came from the category of food articles. The second largest contributor towards inflation in this period was the sub-group of manufactured goods with its contribution at 34.2%. The fuel group had very meager contribution of 1.3%.

xx) The relationship between the money supply and price level depends upon the state of the economy as given by the level of real national income and the behaviour of velocity of circulation of money.

xxi) A given change in the stock of money will have widely differing effects on the price level depending upon the magnitude and direction of change in real national income and the movements in the velocity of money.
xxii) The analysis of relationship between money supply and price level pertaining to India reveals that, over a long period, there exists a positive correlation between the growth in money supply and the growth in price level. The association between the two has however not been proportional. The growth in money supply has almost all the times exceeded the growth in price level. The gap between the two has been explained by the growth in real national income.

xxiii) If the combined growth in price level and real national income over a long period is considered, then it comes very close to the growth in money supply, implying a near proportional relationship between the two. This means the impact of change in money supply gets distributed between the change in price level and change in real national income.

xxiv) The distribution of the impact of change in money supply between change in price level and change in real national income is determined by the state of the economy. A poor state of the economy as implied in the poor real national income growth causes the price level to carry the large part of the impact of change in money supply. This appears to be true in case of India.

xxv) The discrepancy observed with regard to the growth in $M_3$ measure of money supply and the combined growth in WPI inflation and real national income has been found to be the result of fall in income velocity of money for $M_3$.

xxvi) The income velocity of money for $M_3$ appears to have declined by 2.32% over the period 1951-2009, giving us an adjusted $M_3$ growth of 12.08%. This adjusted growth in $M_3$
comes very close to the combined average growth (11.4%) in WPI inflation and real national income, with a residual gap of just 0.68%.

xxvii) The analysis of agricultural output and inflation reveals that food inflation and thus the overall inflation has been greatly influenced by the behaviour of food grains production and the production of agricultural sector.

xxviii) The growth in agricultural and food grains production has not kept pace with the rising population and incomes of the non-agricultural sector, which have been strong influencing factors on the food demand. Consequently, the imbalance between the demand and supply has grown and kept the food inflation and the overall inflation high at around 7% over the period of 58 years. (1951-2009).

xxix) For a large number of years, it is observed that the fall in food grains or agricultural sector’s production impacts the food prices and the prices in general with a lag of one year.

xxx) Though the relative contribution of food inflation to overall inflation has declined, perhaps because of the low weightage assigned to food articles category in WPI, food inflation continues to stay high owing to unimpressive growth in the production of food grains.

xxxi) The food inflation has not only been found to be high, but also exhibiting higher volatility, mirroring the volatility in agricultural or food grains production.

xxxii) No clear pattern of influence of domestic inflation on merchandise imports and exports growth and change in trade balance has been observed. This implies the influence of
factors other than the domestic inflation on the imports, exports and trade balance. Over a long period (1951-2009) however, WPI inflation has been found to be positively correlated with growth in merchandise imports and growth in trade deficit. The positive correlation of WPI inflation with the growth in merchandise exports is however questionable.

xxxiii) An analysis of impact of domestic inflation on the quantum of exports and imports reveals that the change in quantum of exports & imports are negatively correlated with domestic inflation (WPI inflation). The negative correlation between domestic inflation and variations in quantum of imports reflects the impact of import substitution that happened in India and the strict regulation of imports through high levels of import duties, import quotas, import licensing and ban over non-essential imports.

xxxiv) The impact of inflation on the exchange rate in real terms and foreign exchange reserves is clearly discernible. The real effective exchange rate (REER), which reflects the impact of differences in price levels, has depreciated by more than 40% during 1975 to 2009. The high domestic inflation is also seen to have impacted adversely the foreign exchange reserves, registering a steep fall during the second and third phase of this study.

xxxv) The three devaluations of the rupees in the post-independence period are found to be the results of high domestic inflation rather than the cause, as all the devaluations were preceded, not followed, by the high domestic inflation.
xxxvi) For the control of inflation, all the measures monetary, fiscal and direct have been used by the govt. of India, however, little or no success was achieved, the exception being the period of 1995-96 onwards.

xxxvii) Though the monetary policy was tightened and other measures such as price controls and control on speculation and hoarding were employed, it was the fiscal indiscipline largely reflected in high and unsustainable level of fiscal and revenue deficits that appears to have caused the inflation to stay high.

xxxviii) The recent past has however seen the success coming to the govt.’s way, with continuous monitoring of the situation and timely action by the RBI and adherence to fiscal rules by the govt. have helped achieve reasonable control over inflation.

8.3 Policy Implications:

Based on the present study, “A Historical Analysis of Inflation in India 1935 to 2009”, following policy implications can be drawn which may help in keeping the inflation under control.

1. A long term solution to check the inflationary price rise, observed particularly in the category of food articles, is to augment the supplies of these articles through increase in production, imports and through buffer stock operations. Instead of placing too much reliance on imports, concerted efforts should be made to increase the production of food grains through improvement in agricultural productivity, which is believed to be the lowest in India.
Containment of food inflation requires more focus on supply management rather than on demand management. The most effective measure to increase food production is a more efficient water management via sprinklers, drip and expansion of irrigation potential. Increasing investment in River Linking Project is a national need in this context.

2. Monetary policy should be relied upon mainly to keep in check the core inflation, which is free from supply side shocks. Better regulation of money supply and liquidity for the attainment of the objectives of price stability requires the central bank to be free from fiscal dominance and less burdened with the task of achieving too many objectives. This will help the central bank to establish its credibility as an inflation fighter and to move gradually towards inflation targeting, which nowadays appears to be a sensible policy option.

3. Though the root cause of high inflation in India, the automatic monetization of fiscal deficit, has been corrected with the discontinuation of practice of deficit financing in 1997, much needs to be done to strengthen the arms of the central bank. This requires the govt. to exercise strict control over fiscal deficit and revenue deficit. The Fiscal Responsibility and Budget Management Act passed in 2005 had achieved some success in this regard, but the last two years have seen the deficit indicators in govt.’s budget to clock very high levels, setting the stage for emergence of an inflationary price spiral. An Act stipulating non-violation or a minimum range of violation under defined conditions, of its provisions/targets is therefore urgently needed.
4. Fuel inflation, as it is linked with international developments, has exhibited too much volatility and is emerging as a major causal factor to overall inflation in India. It is likely to worsen the inflation scenario in future, with the economy poised to move towards market determined pricing regime for fuel products. To mitigate the volatility and influence of fuel inflation on overall inflation, efforts need to be made to reduce the import dependence in this area through domestic exploration and to build enough levels of inventories which can be made use of in the wake of international hardening of fuel prices. Research for substitute fuels is also necessary.

Beside the above mentioned policy options, the other areas where govt.’s attention is called for are crack down on speculators and hoarders, spreading irrigation facilities, use of modern practices and high yielding varieties of seeds with less water intensity in agriculture, allowing the exchange rate to find its own level, curbing unproductive expenditure of the govt. to minimum level, and development of the forward markets in agricultural commodities in a socially guided regulatory framework.