CHAPTER ONE

COMPLEMENTARITY BETWEEN EMPLOYMENT AND PRICES

1.1 Introduction

The growing magnitude of open and disguised unemployment coupled with rising levels of prices is, perhaps, the most serious problem confronting the Indian economy. It has posed an outstanding challenge to the planners and policy-makers, in particular, and professional economists in general. In view of this, the need for creating additional job opportunities for an ever-growing labour force of the country has been increasingly emphasized in the subsequent plans. The government, in its effort, to fight out the unemployment problem, seems to have envisaged multi-pronged attack through its various policy measures. Most economic policies have been oriented, in varying degrees, towards the promotion of employment in the country. Some major economic policies\(^1\) which may be said to have this orientation or have a direct bearing on the unemployment problem, may be mentioned as: (a) increasing public investment in various sectors of the economy in general, and in infrastructural sectors in particular; (b) exports promotion and

\(^1\) This, however, should not mean that the policies other than those mentioned here have no employment implications.
diversification through incentives, subsidies and concessions, on the one hand, and providing world market information etc. on the other; (c) import substitution by measures similar to those adopted for export promotion and also, by encouraging research and development activities; (d) suggesting to entrepreneurs to develop and adopt labour intensive technologies; (e) providing loans and subsidies for self-employment through commercial and development banks and also through non-banking financial institutions; (f) promotion of village and small industries having high employment potential; and (g) recent introduction of various development schemes like National Rural Employment Programme and Intensive Rural Development Programme. Given these policy measures, and an annual average growth of the economy at 3.5 per cent, one could have reasonably expected the employment to keep pace with the growth of output. The employment has, however, considerably lagged behind the growth of output. During the Plan period, employment has grown much slower than output in the organised sector.

"Between 1961 and 1976, for example, in the modern factory sector, the investment increased by 139 per cent and output by 161 per cent, but employment increased only by 71 per cent." The situation in the unorganised sector would

2 Draft Sixth Plan (revised), 1978-83, para 10-16.
not be much different. The gap between the growth rates of industrial output and employment indicates that the policy measures have not succeeded in making considerable impact on the unemployment problem of the country.

1.2 The Problem

A pertinent question that arises here is, why have employment promotion measures not succeeded in generating job opportunities to absorb the additional labour force. The literature on the subject offers a number of explanations to the failure in achieving the employment goals. One, the labour force has grown at a much faster rate than the absorption capacity of the economy or the growth rate of the economy has been much slower than the population growth rate. Two, the factor-price distortions and problems with labour have encouraged the use of capital intensive technology which has slowed down the labour absorption. Three, a possible inconsistency between employment policy and other economic policies of the country, which might have resulted in a slow demand for labour. Four, the behaviour of a crucial variable, prices, might not be conducive to the generation of employment. One may add many more factors to the list.

We are concerned here only with the last factor listed above. Second Plan onwards, the wholesale price index (WPI) in India has almost persistently and considerably increased.
The WPI has increased at an annual average rate of under ten per cent per annum over the past two decades with considerable year to year fluctuations ranging from negative values to as high as 20 per cent and more. The price rise has been much higher than the growth rate leading to a situation often called ‘stagflation’. A number of factors are said to have contributed to the high price rise in India. Some major factors quoted often by the professional and practising economists are, increase in money supply caused mainly by the heavy deficit financing of plan expenditure, erratic and slow increase in agricultural output caused mainly by weather failure, and high prices of imported crude oil, petroleum and petro-based products. Besides, most policy measures undertaken to promote employment possess strong inflationary potentials. Increase in investment, for example, generates incomes which result in increased demand for goods and services. Given the gestation period there is generally a time-lag between investment and output. This widens the existing gap between supply and demand conditions, and thereby, aggravates the price situation. Moreso, if larger proportion of investment is allocated to the infra-structural activities, in which the gestation lag is usually large and very little or no consumer goods are directly produced but the income and consequential demand for goods and services are generated almost instantaneously.
Employment generation through export promotion or diversification (hereafter referred to as XP), may also contribute to the price rise in the economy particularly if (i) availability of goods and services is not sufficient, (ii) additional supply is not forthcoming to meet the increase in demand arising due to income from export earnings and (iii) increased exports widen the gap between supply of and demand for goods and services. The effect of export promotion on price level may be more adverse if it does not lead to economies of scale in the production process, i.e., it does not reduce the cost of production through economies of scale.

Similarly, an import substitution (MS) policy designed to generate additional employment, may, at least in the short-run, have a tendency to escalate the prices, if attempts are made to domestically produce the capital goods which are being imported. This may be due to generation of additional income and consequential demand, generated by production of capital goods, which are obviously, not expected to meet the increased demand created by additional incomes and thus prices may have an upward movement. However, production of capital goods, in the long-run, may in turn, lead to production of commodities capable of satisfying the additional demand and thereby restrain prices. In the light of the foregoing discussion on employment generation and prices we may postulate, that there exists a complementarity between
the employment promotion measures and prices, which may affect the former adversely.

The increase in price level for the reasons mentioned above, might defeat the objective of employment promotion, through the consequent increase in the cost of investment, which, in turn, may increase the cost of production of exportable items, such that the country has a comparable cost disadvantage and it may also make import substitution a prohibitive measure. Thus, an undesired increase in the prices may not only adversely affect the employment generation strategy but may jeopardise the entire development plan.

1:3 The Objective

The objective of this study is to examine the behaviour of employment and prices in response to changes in nominal government investment.

Various levels of nominal government investment, which the government can control, are expected to generate different employment patterns and price scenarios. These patterns may be useful for determining the employment potential of various sectors which, in turn, can form the basis for designing a developmental plan having emphasis on employment promotion. However, changes in government investment have implications for the economy as a whole and, therefore, patterns of income, consumption, private investment etc., must be studied
along with employment and price patterns to avoid any adverse effect on the welfare of the economy. Thus, it appears proper to have our employment patterns which are generated, as far as possible, by considering the economy in totality instead of attempting to directly relate the employment with the government investment.

This study is intended to construct a multi-sectoral macro-economic model for the Indian economy. An attempt will be made to establish relationships between various macro economic variables in a multi-sectoral framework in such a way, that the responses of employment and prices in particular, and that of many other variables in general, can be studied with respect to changes in nominal government investment with the help of simulation exercises.

1.4 Outline of Chapters

In chapter two of our study, we have presented Review of Models of Indian Economy, followed by Klein's Guidelines for improved modelling. An Overview of the Indian Economy during sample period of the present study has also been presented in the Chapter.

3 Adverse effect on the welfare of the economy may be interpreted as decline in the real per capita income or that in the real per capita consumption.

4 Considering variables such as Income, Consumption, Prices, etc. etc.
Chapter Three deals with our data requirement and availability. Various adjustments made in the data to make the data more suitable for our purpose have been described in this Chapter.

In Chapter Four, we have presented our model which is based on an integration of Input-Output methods and a Behaviouristic Model. The model has been divided into two blocks, viz., The Input-Output Block, which is described by using matrix notation, and The Behaviouristic Block consisting of estimates of parameters of our behaviouristic equations. The Chapter is followed by an appendix which describes various notations used in our model.

Chapter Five is based on Historical Validation and Simulation Experiments. The Historical Validation has been carried out to test the functioning of the model and simulation experiments to study the responses of employment and prices to changes in nominal government investment. The Chapter ends with conclusions drawn on the basis of our study.

In Appendix A, we have presented the estimated Input-Output and Final Demand Coefficient Tables. In Appendix B, the patterns of sectoral direct, indirect and total employment generated in the economy due to changes in nominal government investment, have been given.

A list of references has been given at the end.