

Interpretation and Significance of Productivity Growth in Individual Industries: A Case Study of the Cement Industry in India

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The focus is on the significance of the measure of productivity growth in the index form in individual industries operating under imperfectly competitive market environment. In general, these measures are dependent on a measure of changes in value added per unit of output, which is partly due to change in marginal cost conditions reflecting efficiency in resource use and partly due to differential increases in price of the product and marginal material cost conditions reflecting returns from market power. A division source of growth equation is used to measure the changes in valued added per unit of output which corrects the measure for any change in market power, and thereof allows the 'real' measure of productivity growth in the index form. The corrected measure in turn forms the basis of a proper interpretation of productivity growth in terms of embodied technical change in the context of individual industries.

The focus of the present paper is on the response of a specific industry in the context of the present policy of liberalization in India, opening up the economy to the free play of market forces. The present policy regime is viewed, as a set of policy initiatives adopted with a view to strengthening the competitiveness of different industries and in turn is responsible for the macro economic goal of faster overall growth of the economy. Moreover, the greater competitiveness enunciated in the policy regime is not taken to mean the tendency towards any competitive equilibrium in the Marshallian sense of the term, but refers to a set of micro responses in the economy such that investment and capacity expansion in individual industries are accompanied by productivity growth. In other words, as a follow up to Kaldor (1972, 1975 and 1977), the creative and growth inducing function of the market, rather than the allocation of the market, rather than the allocation function of the market, is emphasized. In this perspective, the focus is on responses in terms of productivity growth indicating the increase in efficiency of factor use as the rate of investment is increased in the industries, in response to the policy of market reform. The present study is accordingly oriented towards an empirical analysis of embodiment hypothesis in individual industries, which is discussed in terms of positive and significant correlation between an increase in rate of investment and productivity growth.

Productivity growth in individual industries is mainly discussed in terms of the Solow residue in the index form, or any other index of total factor productivity. In the literature, the significance of the Solow residue in the index form as an important basis of industrial growth have proceeded in two different directions.

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