

Trade Reforms and Total Factor Productivity Growth in India's Aluminium Industry with Adjustment for Capacity Utilization

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This paper examines productivity performance of India's aluminium industry in the pre and post-economic reforms and tries to relate economic capacity utilization with productivity growth. The results on partial productivity of factors show improvement in productivity of material and capital but not of labour. The total factor productivity growth in the post-reform period, however, declined. Total output growth in Indian aluminium industry is found to be mainly input-driven rather than productivity-driven. With adjustment for variations in capacity utilization, trend in total factor productivity growth remains declining. The paper also reconfirms the important links that exist between manufacturing productivity, trade orientation, industry specific characteristics and some macro economic variables. The liberalization process is found to have adverse impact on total factor productivity growth.

I Introduction

Total Factor Productivity (TFP) is extensively documented as a superior indicator of industrial performance as compared to labour productivity and multi-factor productivity for characterizing industry-level productivity performance. Estimating productivity level and growth rate as well as analyzing productivity determinants to evaluate the efficiency in the use of resources in the industry gained a renewed interest among economists. Theoretically, TFP is a relevant measure for technological change by measuring the real growth in production value, which cannot be explained by changes in the input, that is, labour, capital and intermediate input. However, in reality, most works on TFP measurement are limited on the basis of two factor inputs - capital and labour. But, the increasing role of material inputs in productivity has compelled researchers to reconstruct

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