Technical Efficiency and Its Determinants in Gansu, West China

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This paper analyses the technical efficiency problem in Gansu Province, West China, using firm-level cross-sectional data. Compared with previous studies, which mostly focus on industries, this paper focuses on a geographic area instead. By applying the stochastic frontier framework, this paper arrives at four major findings: first, resource-based firms are more technically efficient on average than non-resource-based firms; second, foreign investment is beneficial to the improvement of technical efficiency; third, there is no evidence that ownership affects the technical efficiency of firms in Gansu province; and fourth, bigger firms tend to operate with more technical efficiency than smaller firms.

Introduction

As is well known, China’s economy is progressing at a rapid speed. From 1990 to 2003, the average annual GDP growth rate (calculated with GDP in constant 1985 prices) was 8.2 percent, and per capita income also increased greatly, with per capita annual disposable income of urban households in 2003 over five times that of 1978 (in constant 1978 prices). However, some problems have arisen in the process of rapid economic development, such as income inequality and regional disparities. Since 1978, the east and south regions of China (located in the coastal area) have grown comparatively more quickly than the western region, reflecting both the impact of government policy and the advantage of physical location (Démurger et al., 2002; Golley, 2003). For example, the first five special economic zones, namely Shenzhen, Zhuhai, Shantou, Xiamen, and Hainan, are all located in the costal area which is