

Abstract

Abstract of thesis entitled “Agricultural Productivity Growth in Chinese Economy: A Provincial Panel Data Analysis after 1980”, submitted by Zhuo Shuaihe (M-A66802-1) for the degree of Master of Social Sciences at the University of Macau in July 2008.

After nearly thirty years of economic reforms, Chinese agricultural production has improved a lot due to productivity growth and efficiency gain. The Cobb-Douglas production function, translog production function, dynamic panel data production function and stochastic production frontier models are derived to capture the farming production in China at provincial level after 1980. Various econometric models have been applied to consistently estimate the production functions. The annual and provincial TFP growth rates are both calculated. The TFP growth rates are decomposed into technical change and change in economies of scale in the time-invariant stochastic frontier model, and technical change and change in technical efficiency in the time-varying model. In the regional analysis, their TFP growth rates and levels of technical efficiency are compared so as to investigate the regional disparities. This study contributes to the policy analysis and decision making in the future agricultural developments.

Keywords: TFP, Technical Efficiency, Chinese Agriculture