

Total factor productivity growth in China's agricultural sector

陳柏琪, 游明敏, 張靜貞, 徐世勳

International Business

Management

pochi@chu.edu.tw

Abstract

A panel dataset of 29 provinces in China is used to analyze the productivity growth in China's agricultural sector over the period 1990 - 2003. We compute the output-oriented Malmquist productivity indexes and their decomposition using a sequential data envelopment analysis approach. The results indicate that the major source of productivity growth is technical progress and that the regional disparities in productivity growth worsen over time. The second stage regression results show that the main determinants of technical progress are agricultural tax cut, public investment in R&D and infrastructure, as well as mechanization while market reform, education and disaster mitigations are associated with efficiency improvement. The deterioration in scale efficiency, however, suggests a transition problem in relation to mechanization and highlights the importance of structural adjustment facilitations.

Keyword : Total factor productivity

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Malmquist productivity index