

THE CHANGE AND DETERMINANTS OF URBAN PRODUCTION EFFICIENCY: EVIDENCE FROM CHINESE CITIES

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ABSTRACT

By using the Data Envelopment Analysis (DEA), this paper estimates the urban production efficiency for 289 Chinese cities from 1984 to 2009. The results show that there is a convergent trend for urban efficiency between cities in different sizes and areas. The change of urban efficiency of Chinese cities can be generally divided into three stages: fluctuating period before 1990s, rapid growing period in 1990s, and steady and slow growing period after 1990s. The reason to contribute the improvement of urban efficiency is the economies of scale in most periods. Furthermore, we adopt the spatial econometrics method to analyze the external factors which impact the efficiency. The results show that city size, fixed capital stock and market potential have positive effects on urban efficiency, while expansion of a city have reverse effects on it. The natural environment can provide some impacts on urban efficiency as well.

Keywords: *Urban production efficiency; Data Envelopment Analysis; Spatial econometric model*