

Study on the Driving Effect of Digital Finance Development on Urban Low-carbonization in the Yellow River Basin

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Abstract

In recent years, under the background of dual-carbon target, the state is committed to improving the ecological and economic problems of the Yellow River Basin and promoting its high-quality development. Although certain results have been achieved, the contradiction between economic development and environmental protection is still serious, and the coordinated development of economy and ecology is still a difficult problem. The development of digital finance provides a new opportunity to solve the problem. This paper selects the panel data of 81 cities in the Yellow River Basin from 2011 to 2021, and measures the comprehensive development index of digital finance and the Low-carbonization level of 81 cities by using the entropy method and the super-efficiency SBM-ML index, respectively, to study in depth the driving effect of digital finance on urban Low-carbonization in the Yellow River Basin. The results show that, firstly, the development of digital finance has a significant promotion effect on the urban Low-carbonization of the Yellow River Basin, and the promotion effect has the heterogeneity that upstream cities are larger than middle stream and downstream cities, and non-resource cities are larger than resource cities. Second, digital finance can promote the urban Low-carbonization of the Yellow River Basin by enhancing energy efficiency and improving energy structure. Third, in the driving effect of digital finance development on the urban Low-carbonization of the Yellow River Basin, there is threshold effect of the level of digital finance development and the intensity of environmental regulation, which is specifically manifested in the fact that the higher the level of digital finance development and the intensity of environmental regulation, the stronger the driving effect of digital finance on urban Low-carbonization of the Yellow River Basin.

Keywords

Digital Finance, Low-carbonization, Energy Efficiency, Threshold Modeling, The Yellow River Basin