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FINANCIAL DEVELOPMENT, FINANCIAL STRUCTURE AND CARBON EMISSION

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Abstract

Using the panel data of 30 provinces, cities and autonomous regions in China from 1997 to 2013, and taking different finance development and financial structure indexes into consideration, the paper systematically investigate the impact of finance development and finance structure on carbon emission. The results of empirical research show: (1) The financial development efficiency at a provincial level, and in Eastern regions, has a significant effect on carbon emission, illustrating an inverted U-shaped relationship, but the financial development scale in Central and Western regions has a significant effect on carbon emission, and illustrates a U-shaped relationship. (2) Stock market development at a provincial level and stock market transactions and the market value of circulating shares in the Eastern regions have a significant effect on carbon emission, showing a U-shaped relationship, but the market value of circulating shares in the Middle regions and the stock market development in the Western regions have a significant effect on carbon emission, but illustrate an inverted U-shaped relationship. (3) The financial structure at a provincial level and in the Eastern regions has a significant effect on carbon emissions, showing a U-shaped relationship whereas the financial structure measured by the ratio of circulating shares market value and total value of stock market to financial development scale and the financial structure in the Western regions has a significant effect on carbon emissions, showing an inverted U-shaped relationship.

Key words: carbon emission, financial development, financial structure

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