

学校编码：10384

学号：2009170031

廈門大學

博士后学位论文

碳强度指标的区域分配及交易机制的构建

Allocation Plan and Carbon Emission Trading
under CO₂ Intensity Framework

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专业名称：技术经济及管理

答辩日期：2012年2月

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摘要

我国政府在哥本哈根世界气候会议上做出的关于2020年碳排放强度比2005年下降40%到45%的减排承诺，并且将此作为约束性指标纳入国民经济和社会发展中长期规划。因此，将碳强度下降率的减排目标按区域进行分配，成为落实碳减排承诺的关键。

考虑到中国作为一个区域发展和资源禀赋极不平衡的国家，各地区的碳排放特征和发展趋势也呈现较大差异，所以碳排放问题不仅体现在总量和增长上，更多地是体现在碳排放的空间格局的动态变化方面。只有将区域的差异性和关联性纳入碳强度指标的区域分配计划中，才能使得相关政策具有更明确的针对性和更良好的可操作性。

我们首先采用空间计量经济学的研究方法，综合区域经济、人口、资源和能源结构等多元信息，构建区域碳排放空间格局的动态演化模型，为碳强度指标的区域分配提供一个反映区域碳排放空间依赖性和溢出效应的分析框架。其次，根据区域碳排放特点及空间依赖性，确定重点减排产业和方向，将区域减排的碳强度“相对指标”转化为某些行业（或企业）碳排放增量的“绝对指标”，在局部形成具有约束力的“总量控制”情况下，参照国外经验，设计某种形式的碳交易市场机制，为实现减排成本最小化和未来争取国际碳定价权提供契机。

关键词：碳强度；空间计量经济学；碳交易

Abstract

This research use spatial economics models to carry out an empirical analysis of spatial character of regional carbon emission in china across provinces in china.

The results show that there is not only a conditional convergence in regional carbon emission, but also a club convergence has been identified, that is, the neighbor provinces have a certain growth convergence in carbon emission.

Otherwise, the analysis also shows that the variance of the industrial and urbanization among different regions affect the growth convergence significantly.

Keywords: carbon intensity; spatial economics; carbon trading

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