

研究论文

技术进步作用下中国CO₂减排的可能性

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摘要 建立了包含技术进步作用的CO₂减排经济影响的宏观经济模型, 基于这个模型, 开展了中国减排CO₂经济影响的政策模拟, 研究发现, 中国每年降低排放0.2%的排放量(少增0.2%), 到2050年GDP会比不控制下降5.12%, 但是最高还能保持GDP年增长率为7.2%左右, 如果中国承担年少排0.5%的减排任务, 从2000年到2050年相当于50a少排放12.4%, GDP的年增长率的平均值为6%左右。如果中国加大教育科研投资0.5%GDP, 则不仅减排的影响可以克服, 而且到2050年GDP提高25%左右

关键词 [技术进步](#); [CO₂减排](#); [政策模拟](#)

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The research on China's potential abatement of CO₂ by technological progress

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Abstract This study considers China's potential CO₂ abatement and its subsequent impacts on the aggregated GDP growth. Based on a specified macro-economic model, several alternative of Chinese CO₂ abatement were development, and their respective impacts on Chinese GDP growth performance were simulated. As revealed by the simulating results, a reduction of 0.2 percent in the growing Chinese CO₂ emission would bring about an annual average GDP growth rate of 7.2 percent, and by 2050 the aggregated GDP of China would shrink by 5.12 percentage if compared it to the scenario without abatement. Moreover, a reduction of 0.5 percent in the growing CO₂ emission would reduce 12.4 percent of China's total CO₂ emission over 2000~2050, which would also reduce the Chinese GDP growth rate to be 6 percent per annum. Finally, if the Chinese government increase its investments on education and R&D by 0.5 percent of GDP, not only would the negative effects of CO₂ abatement be absorbed, but an annual average GDP growth rate of 11.6 percent would created through 2050.

Key words [Chinese](#) [CO₂ abatement](#) [policy simulation](#) [GDP growth performance](#)

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