

Abstract

The Czech Republic has experienced steady and continuous economic growth since acceded to the European Union. However, at the same time, the increasingly frequent global geological disasters are a constant reminder that the Earth's environment seems to be undergoing even more severe damage. Behind industrial development, technological progress and improving people's lives are increasing carbon emissions. The Czech Republic's carbon emissions are among the highest in Central and Eastern European countries, and the substantial carbon emissions bring serious consequences. The Czech Republic has gradually recognised the seriousness of this problem. It has started introducing a series of relevant policies, laws, and regulations to change the economic growth model, hoping to reduce carbon emissions and improve the natural environment. Based on this, this paper studies the impact of economic growth on carbon dioxide. This paper first selects GDP per capita, industrial structure, and foreign trade dependence as the indicators of economic growth. Then it discusses the theoretical basis and influence mechanism of the impact of economic growth indicators on carbon emissions. By collating the relevant data on economic growth and carbon emissions in the Czech Republic from 1990-2019, the relationship between the two is visually represented by actual data. Afterwards, empirical evidence is used to prove the obtained conclusions further. The article constructs a VAR model to analyse the impact of various factors on carbon emissions from multiple angles. It puts forward relevant suggestions based on the empirical results. The empirical results show that the relationship between GDP per capita and carbon emissions is in line with the environmental Kuznets theory, and the inhibition effect of industrial structure on carbon emissions is noticeable. Overall, economic growth suppresses carbon dioxide emissions.

Based on the conclusion of this study, this paper puts forward some practical suggestions to reduce carbon emissions, such as vigorously developing the service industry and high-tech industry to improve the energy-consuming industry and making trade structural adjustments to encourage the import of resource-intensive products to reduce the production of carbon-intensive products in the country, and so on. The paper also discusses the innovations and limitations.