







and implementing trade policy [5].

Secondly, the causality between FDI Dependency and carbon dioxide emissions is bidirectional. The economic meaning of this result is that the relationship between the use of foreign capital and CO<sub>2</sub> emissions not only reflects that the former is the reason for changes of the latter, but also indicates that CO<sub>2</sub> emissions can influence FDI. However, the current research literature mostly tends to focus on unilateral roles FDI has played in CO<sub>2</sub> emissions, neglecting the influences CO<sub>2</sub> emissions has on foreign investment policy and the degree. On one hand, the international industrial transfer carried by FDI has not played an important role in optimizing the structure of China's manufacturing industry, and foreign capital entering high carbon-correlation industry will buy high carbon products back to the domestic through processing trade. When foreign capital transferred industry to China, it also transferred parts of CO<sub>2</sub> emissions at the same time. On the other hand, the increase of CO<sub>2</sub> emissions will influence policy adjustments of the use of foreign capital, and then influence the introducing standard and structure of foreign capital.

## **Conclusion**

This paper studies this relationship between free trade and carbon dioxide emissions by utilizing the time series data collected from the year 1981 to 2010. This research arrives at conclusions as follows: There's a long-term equilibrium relationship between trade liberalization and carbon dioxide emissions in China. It is foreign trade and the use of foreign investment that cause CO<sub>2</sub> emissions to increase rapidly in the long term. And a unidirectional causality exists from Foreign Trade Dependency to carbon dioxide emissions, while the causality between FDI Dependency and carbon dioxide emissions is bidirectional.

## **References**

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