Food self-sufficiency rate has been the major food security indicator for policy decision-making in China for a very long time. However, after reform and opening the country up with increasing international trade, the self-sufficiency ratio of food has gradually decreased, which raises the question, is there a gradual deterioration of China’s food security? This study uses the Global Food Security Index (GFSI) constructed by the Economist Intelligence Unit (EIU), consisting of three sub-indexes, namely affordability, availability, and quality and food safety, to evaluate the food security of China. Of major importance is the adoption of the perspective of food supply chain in measuring food security. The results show that the GFSI of China has increased continuously during the past 40 years and the total score has increased by nearly 2 times, indicating that China’s food security performance has continued to improve significantly with trade liberalization.

Furthermore, in order to analyze the relationship between trade liberalization and food security, we use the Spearman rank correlation method to calculate the correlation coefficients of food self-sufficiency rate, GFSI, agricultural product tariff and trade dependence. We find that China’s food self-sufficiency rate is correlated with trade liberalization negatively significantly. GFSI and trade liberalization are significantly and positively correlated, indicating that there is a positive correlation between food security and trade liberalization in China. This result highlights the importance of incorporating multi-dimensional indicators into the measurement of food security.

Keywords: China’s Food Security, Food Self-Sufficiency Rate, Global Food Security Index, Trade Liberalization, Food Supply Chain