

## **The Impact of Decrease of Wheat Self-sufficiency Rate----Based on Input-output Price Model**

Topic: Price modelling

Author: Man man Fu

Abstract: China is a country with the largest grain demand in the world, but at present China is facing growing difficulties in increasing grain output. The current high self-sufficiency in grain may cause large pressure on resources and environment. Wheat is the main grain of China, is it possible for China to import more wheat? How much will it affect the world economy if China imports more wheat? This paper proposes a method to measure the short-term impact of China's sudden increase of wheat import and the long-term impact of the world capacity when China's grain self-sufficiency rate reduces. For the short-term impact, this paper conducts empirical analysis under the scenario that the self-sufficiency rate of wheat in 2014 suddenly drops by 5 percentage points. Firstly, we calculate the changes of wheat price by price elasticity of import due to China's sudden increase of wheat imports. Secondly, based on the data of WIOD, we use the input-output price model to calculate the impact of drop in self-sufficiency rate of wheat on China and relevant economies in terms of price. Finally, by using input-output model, we calculate the increase of world input in order to adapt to the more import of China in the long run. In general, the decrease of China's self-sufficiency rate does not affect much on the world economy, but it is different across economies and sectors.

Key words: Wheat import; Wheat prices; Self-sufficiency rate of Wheat; Input-output Price Model