

Economic Analysis on Chinese Grain Prices from the Perspective of Globalization

曹，正偉

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氏 名 : 曹 正偉

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論 文 内 容 の 要 旨

China has been motivated to find a way to face the grain price globalization during the recent years. China holds the greatest number of population in the world, and it will be a difficult challenge for the government in the country to feed its population, by not only the traditional grain for food, but also the increasing demand for eggs, milk and meats, all of which will bring increasing demand for feed grains. In addition, the co-relationship between grains for food/feeding and for bio-energy provides big challenges on the rapid growth Chinese economies.

The results of this entire study indicate that China's grain price reform has gone through a long process of exploration. On the other hand, we must consider that the government decisions have a lagged effect on the grain prices.

Also indicated was that investors such as middlemen and speculators showed risk aversion in wheat and corn before China's joining WTO. After China joined the WTO, however, they have been risk avert for wheat and indica rice, risk appreciate for soybean. After the agricultural promotion policy introduced in 2004, investors are risk avert for staple food such as wheat, japonica rice and indica rice. During the global high grain prices in 2008, soybeans, corn and japonica rice showed risk avert effects. While indica rice showed risk avert to middlemen and speculators in the recent era, corn showed risk appreciate, which may bring a challenge for corn in the next few years.

In addition, the effective but costly grains policy measures in China in 2008 cut off the relationship between the domestic and the international market, and stabilized the domestic prices. Stabilization index for wheat in China is the largest, followed by japonica rice, indica

rice, and corn, with soybeans located at the lowest.

Wheat prices in China have been keeping gradually increasing since 2007. Corn wholesale prices and soybean wholesale prices in China have been higher than US price during the recent years. However, the US corn price had surpassed the China's corn price during the international price spike in 2008. Soybean prices in China shifted in the same direction as the US soybeans prices. Yet the China soybean prices remained above the world market price.

Our result of ADF test for grain prices in China and the US indicated that co-integrations might exist between the same grain prices. The results of VECM models also indicated existence of causality among all grains at 1% significance level. Volatility for the US soybean prices may have caused the Chinese soybean prices to fluctuate. In impulse response functions, Chinese grain prices response immediately to their own standard deviation innovations and the impacts from the international markets are more significant for soybeans. Prices of US soybean and corn show significant effect to their own innovations.

Based on the results of this research, we recommend that Chinese government should take some policy measures to face the new challenges for grain globalization. Firstly, China will have to introduce some new the pricing systems to replace the old pricing mechanism. Secondly, China can forecast the grain price fluctuations and take effective policy measures. It is necessary to reduce the speculators hoarding of large numbers of grains, which may lead to insufficient domestic grain supply. Thirdly, the Chinese government should help the farmers increase production in the future by increasing the financial and technical supports. In long run, the Chinese government needs to prepare to face the higher prices. Finally, it is imperative for the Chinese government to focus on CBOT agricultural futures markets and find out immediately any new symptoms of the CBOT prices so that any negative influence to the Chinese markets can be harnessed.