

Price Risk and Coping Strategies of China's Soybean Industry

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Abstract

In recent years, wild fluctuations in international soybean prices have brought tremendous price risks to domestic soybean enterprises, which are mainly rooted in China soybean industry's relatively high dependence on foreign market; multinational grain merchants' intensive control on Chinese soybean industry; China's loss of pricing of global soybeans and the huge fluctuation of soybean prices. Therefore, we should deal with this by taking measures to improve self-sufficiency rate of domestic soybean, restrict foreign capitals' control of the soybean industry, and strive to promote domestic soybean enterprises to develop bigger and stronger.

Key words: China's soybean industry; Price risk; Pricing

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INTRODUCTION

In recent years, China has been playing an increasingly prominent role in the international soybean market, which is well revealed in that China has become the world's largest consumer and the largest net importer of soybeans since 2010. The US Food and Agricultural Policy Research Institute (FAPRI) showed that China in recent years accounted for two-thirds of the world's net imports and one-fourth of the soybean consumption. Meanwhile, there has been an explosive growth in the number and capacity of China's domestic soybean enterprises, which

are involved in soybean crushing and soybean feed. However, domestic and international soybean markets in recent years have shown that China's soybean enterprises face a tremendous price risk in the course of business and experience unprecedented challenges in its survival and development. It is mainly due to domestic soybean market's steady increase of dependence on foreign ones year by year, multinational grain merchants' intensified control on Chinese soybean industry, loss of pricing of international soybeans and wild fluctuation of soybean prices. Therefore, researches on the price risk of China's soybean industry have great importance to understand causes of the soybean market's price risk and work out rational risk aversions.

1. CAUSES OF CHINA'S SOYBEAN INDUSTRY PRICE RISK

1.1 Domestic Soybean Market's Increasing Dependence on Foreign Market Year by Year

Statistics show that in the early 1990s China's dependence on foreign soybeans is almost zero, improving year by year since 1995, with it reaching 44% in 2000, over 65% in 2005 and so far up to 85% since 2010. This means about 85% of China's consumption of soybeans per year relies on imports. With rapid development of China's farming industry and the oil processing industry, China's dependence on foreign soybeans has been increasing year by year, which directly causes the surge in soybean imports with each passing year. China's total demand for soybeans topped 10 million tons in 1994, 20 million tons in 2000, 60 million tons in 2011 and reached 63.4 million tons in 2013. In contrast to this trend, China's domestic soybean production for nearly 10 years has maintained at about 15 million tons, and showed a declining trend. The huge gap between supply and demand of domestic soybeans makes China's soybean imports climb annually, which directly causes domestic soybean market's

increasing dependence on foreign market year by year. Soybean is China's first liberalized import of staple agricultural commodities and this situation contributes to close link between domestic and international soybean markets so that operating costs of China's soybean enterprises would be directly influenced by price changes of international soybeans. However, the wild fluctuation of soybean prices in international markets has brought tremendous price risks to China's related companies (Ministry of Agriculture, 2012).

1.2 Multinational Grain Merchants' Intensified Control on Chinese Soybean Industry

In recent years, with the rapid growth of China's soybean demand, the multinational grain giants have accelerated the pace of investing in China's soybean processing industry through greenfield investments, foreign mergers and acquisitions, etc. Some studies show that the current soybean industry is under "full control" of foreign enterprises, which have basically completed the strategic layout in China. After controlling 60% of the actual processing capacity of China's soybeans, the first four of multinational grain giants (including Archer Daniels Midland Company of US, the United States Bunge, Cargill of US and Louis Dreyfus of France, respectively), dominate 80% of the supply to China's soybean imports. In terms of country, China is the world's largest soybean importer, while the United States is the world's largest exporter of soybeans. The main source of China's soybean imports is from the United States, Brazil and Argentina. Recently the US multinational grain merchants not only has US soybeans, but takes control of South American soybeans—the world's second largest soybean prouder—through capital and scale advantages; which, in fact, almost monopolizes all sources of China's soybean imports. Under this context, China's soybean market has suffered more and more from transnational capital with the United States as the representative.

While controlling China's soybean import source, transnational capital has also accelerated the pace of domination in the soybean crushing markets in recent years. It is reported that in 2012 China's soybean crushing capacity has exceeded 100 million tons with over 1,000 domestic oil crushing enterprises. But around 60 of them have genuine strength with their production capacity accounting for about 85 percent of the country. However, the deeper background is that these soybean crushing enterprises are all foreign holding or shareholding companies which are dominated by the world's top four international grain merchants who control more than 80% of China import sources. Mostly, by way of equity participation rather than holding, these multinational giants cunningly acquired the right of soybean procurement and pricing, making China's enterprises a chain of transforming profits. As is known, in recent years the competition in soybean industry has been transformed into that of the whole industry chain. Multinational grain

giants transfer profits by taking advantage of the industry chain, causing our soybean enterprises to face more severe price risk.

1.3 China's Loss of Right on International Soybean Pricing

Before 1995, China had been playing its role as a net exporter of soybeans with high self-sufficiency rate for domestic soybean consumption. Soybean enterprises are mainly state-owned with a small amount of private, and China has the right of soybean pricing. China has liberated domestic soybean market in 1996. With the surge in domestic soybean demand, China's soybean imports climbed rapidly at an average annual rate of nearly 10 million tons. Meanwhile, foreign enterprises rush into China's soybean industry, and China has lost the pricing of international soybeans under attack both inside and outside. According to the current situation, the international soybean pricing is under major control of the United States and the global soybean market trading is mainly embodied through the Chicago Board of Trade (CBOT) futures prices. Chicago Board of Trade has a long history with perfect trading rules. The soybean futures prices it offers, is not only an important reference for the US soybean production and processing, but also an authority of the international soybean trade price. A majority of countries around the world take it as a pricing benchmark, and China is no exception. From the practical point of China's soybean imports, China's soybean imports price equals to $[(CBOT + FOB \text{ premiums and discounts}) \times \text{unit conversion factor} + \text{ocean freight}] \times \text{RMB exchange rate} \times (1 + \text{Tarrif}) \times (1 + \text{VAT}) + \text{Port miscellaneous}$. Thus it can be seen that factors affecting price of imported soybeans are CBOT soybean futures prices, price premiums and discounts, ocean freight, the RMB exchange rate, tariffs, VAT and port miscellaneous. While Tarrif, VAT and port miscellaneous remain unchanged during a certain period, CBOT soybean futures prices, premiums and discounts, ocean freight, the RMB exchange rate would fluctuate frequently (Fang & Ma, 2014). In these four frequently fluctuated factors, the multinational grain giants integrate the whole global market chain, with the upstream dominating China's soybean import sources, the midstream controlling maritime transport, and the downstream continuing to penetrate the China's soybean market. Thus these giants firmly take control of the international soybean pricing.

1.4 Wild Fluctuation of Soybean Prices in International Market

China, as the world's largest consumer and the largest net importer of soybeans, has showed increasing dependence on foreign soybeans. It has become increasingly evident that changes in international soybean prices transfer to the domestic soybean market and the linkage between them also strengthens (Jiang & Guo, 2012). In this context, the international grain giants manipulate international soybean pricing mechanism by sophisticated layout and causes wild

ups and downs of international soybean prices, thus lead domestic soybean import enterprises to face enormous price risk. It is estimated that from 1996 to 2012 the international soybean price volatility was among 12.5%-43.7%. The maximum fluctuation periods appeared twice: the first time being a decrease of 40.7% from April 2004 to August 2005, and the second being a rise up to 43.7% from March 2007 to July 2008. Then due to the sudden case of global financial crisis, soybean prices fell sharply, entering a bear market of nearly three years. Since the beginning of July 2010, affected by the extreme weather, soybean prices began to soar again and global soybean import countries generally suffer from the rise in prices.

The huge fluctuation of soybean prices has brought tremendous price risks to domestic enterprises involved in soybeans, especially for soybean crushers. For soybean crushing enterprises, the raw material cost of soybeans accounts for about 95% of the total cost and other expenses for less than 5% in the operating process. Thus the price levels of imported soybeans and the quality of the soybean procurement cost control have become a key to business success. Therefore, the huge fluctuation of international soybean prices has brought enormous risks and challenges to domestic soybean enterprises. For example, in December 2011, as a result of China's major soybean enterprises' misjudgment of the international soybean market, soybeans imported at a high price fell more than 500 Yuan per ton before arriving at the port, which resulted in great loss of at least 3 billion of soybean enterprises.

2. COPING STRATEGIES OF PRICE RISK IN SOYBEAN MARKET

2.1 To Improve Self-Sufficiency of Domestic Soybeans and Decline Dependence on Foreign Soybean Industry

The rise and fall of China's soybean breeding industry is related to the soybean industry's safety. It is generally believed that by maintaining China's dependence on foreign soybeans under 50%, the price control of domestic soybeans would be realized, which could help enterprises avoid price risk. For this purpose, on the one hand, the government should enhance support for domestic soybean breeding and improve the self-sufficiency rate of domestic soybeans by tapping the potential of domestic soybeans in yield and acreage. The increase of yield relies on the advances in technology. China has long been in a serious shortage of investing in soybean research and development, which contributes to China's soybean production technology lagging behind the soybean production powerhouses like the United States, Brazil and others. So the government needs to develop mid-and-long-term planning and guidance of the soybean industry, strengthen support of research and development on soybean breeding and cultivation technology, provide funding for relevant research institutions, promote the

development of domestic soybeans' super high breeding and corresponding cultivation technology to improve yields and quality of domestic soybeans.

On the other hand, the government should take an active part in raising organization degree of soybean breeding, guide the establishment of main producing areas' specialized economic cooperation organization, and promote large-scale soybean production and operation. The rise in organization degree would contribute to realizing unified cultivation and management, so as to improve the yield and quality. At the same time, supportive policies should be intensified to enable the improvement of profitability improvement of soybean planting. In recent years, China has continued to strengthen support policies for staple food crops, such as rice, wheat, corn, but hasn't changed much of the support policies for soybeans; which caused comparative efficiency in soybean planting industry to decline and triggered China's soybean acreage dropping year by year. Therefore, it is recommended that the state should set up and implement relevant measures to ensure soybean production and management, make full use of Yellow Box policies and Green Box policies permitted by WTO rules, expand the support policies of food crops to soybean industry, popularize the soybean seed subsidies, subsidies for modernization and large-scale development, and in a timely manner raise the lowest price protection of soybeans according to fluctuations in market prices. We also suggest that the country should provide higher direct subsidies to soybean planting than to plantings of rice, wheat or other crops and enhance comparative efficiency in domestic soybean planting. By encouraging domestic soybean planting, we would reduce dependence on international soybean market, and gradually seize the right of soybean pricing, in order to avoid price risk brought by huge fluctuations of soybean prices in the international market.

2.2 To Restrict Foreign Capitals' Control of the Soybean Industry

Soybeans, as a traditional staple food crops, is playing a significant role in national food security. Soybeans are not only fundamental raw materials for edible oil and protein food, but also important sources of protein feeder in breeding industry. In recent years, after completing basically full penetration of China's soybean crushing industry, international grain giants have begun a comprehensive expansion of soybean acquisition, storage and transportation in the upstream and the grain and oil distribution chain in the downstream. By controlling the upstream and downstream related industries, these giants attempted to earn excess profits through taking control of the whole industry chain. Therefore, we should remain on high alert for multinational grain giants' every move from a strategic height, take "Guidance to Promote the Healthy Development of Soybean Processing Industry" enacted in 2008 as a basis and develop appropriate industrial planning and implement it timely. We should also establish a sound approval system for purchase and storage, improve control measures on the soybean processing

industry, restrict and supervise foreign investments in soybean acquisition, storage and transportation as well as grain and oil distribution, ensuring the safety of China's soybean industry.

2.3 To Promote Domestic Soybean Enterprises to Develop Bigger and Stronger

Domestic soybean enterprises mainly include state-owned and private soybean enterprises of cultivating, processing and operating. As the main part of China's soybean industry, their development and growth have played a crucial role in securing domestic soybean industry, coping with shocks from international soybean market and maintain the stability of domestic soybean prices. Therefore, it is recommended that the government provide support for domestic soybean enterprises in aspects of taxation, credit and others, promoting domestic soybean enterprises to develop bigger and stronger. First, the government could through policy support, encourage soybean breeding enterprises in the main producing areas to grow large scale, offer purchase and storage subsidies or tax breaks to acquisitions of state-owned enterprises, ensure soybean farmers the increase of production and profit, and motivate processing enterprises to purchase domestic soybeans. Secondly, the government should strengthen the funds support for domestic soybean procurement enterprises. Soybean acquisition requires a great amount of circulating funds, but the profit margins in soybean industry are low. According to the current credit conditions, it is difficult for the enterprises to obtain loans support from financial institutions. The government needs to coordinate by offering preferential low-interest loan policy and increasing the scales of credit loans. Thirdly, it is recommended that the government should offer moderate support to domestic soybean enterprises in the face of actual operational difficulties, through flexible adjustment of price control policies. Efforts should be made to encourage domestic soybean enterprises to develop bigger and stronger, lower their dependence on multinational grain giants, thereby increasing domestic enterprises' bargaining power in the international soybean market and thus avoiding domestic soybean companies to encounter price risk during production and operation process.

2.4 To Avoid Price Risk Through Hedging of Financial Derivatives

In recent years, there has been a wild up and down in international and domestic soybean prices, causing quite a number of soybean enterprises trapped in a series of price risk and creating a huge loss, especially for soybean crushing enterprises. Under such circumstances, it is of vital importance to understand how to keep raw soybeans' procurement costs under flexible control and guarantee the profits of downstream products. Given the fact that the soybean market has a more mature futures market base, the enterprises involved in soybeans could make full use of

futures, options and hedging of financial derivatives, avoid flexibly the risk of price fluctuations, maintain enterprises' processing profits and achieve stable operation. Currently, China's Dalian Commodity Exchange (DCE) serves as a good platform for domestic soybean enterprises to avoid soybean price risks. It is China's largest agricultural futures exchanges and the world's second largest soybean futures market, whose futures soybean products are composed of the soybean, soybean meal and soybean oil. DCE has constructed a relatively complete contract on the same industry chain, serving as an excellent foundation for enterprises involved in soybeans to avoid the risks. In addition, the futures and options contracts of Chicago Mercantile Exchange are also available as an important tool for avoiding soybean price risks (Shen & Wang, 2014). Domestic enterprises involved in soybeans should actively participate in futures and options trading and hedging of financial derivatives, to avoid the risk of soybean price fluctuations and to shelter to the most extent for the sound operation of enterprises.

CONCLUSION

In recent years, along with China soybean market's relatively high dependence on foreign markets year after year, multinational grain merchants' intensive control on Chinese soybean industry; China's loss of pricing of global soybean and the wild up and down of both international and domestic soybean prices, domestic enterprises involved in soybeans have encountered tremendous price risks. Therefore, we should take measures to improve self-sufficiency rate of domestic soybean, decline dependence on foreign soybean industry, restrict foreign capitals' control of domestic soybean industry, strive to promote domestic soybean enterprises to develop bigger and stronger, and avoid price risk through hedging of financial derivatives.

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