

# The National Food Security Research

Feng Zhiqiang

Henan Industrial Trade Vocational Institute, Zhengzhou City, P.R China

Email:fzq2007@yahoo.cn

**Abstract**—Comparative study of modern foreign market supervision and management, supervision and management of a country not to the country's economic, to prevent the issue of economic security. The economy is more open, more to strengthen the supervision and management of economic security. Highlight the issue of food security in China, from the general concept of the safety of the food economy, the main factors to affect the grain of economic security, food security and food trade market and food economic security must establish risk prevention mechanism of the grain trade, discussed several aspects food economic security.

**Keywords**—Food Economy; Economic Comparison; Economic Security; Food Trade Risk Prevention Mechanism

## 1. Introduction

From the modern Chinese and foreign market supervision and management of the comparative study, not a country not their own economic for the supervision and management and prevent the occurrence of economic security problems. The more open economy, the more you should strengthen economic safety supervision and management. Economic security is a wide range of content, generally refers to the safety of the market management system, market system, the safety against unfair competition and antitrust competition system, the safety of trademark registration and protection economic contract behavior and market behavior, the safety management of registration of corporate enterprises, the advertising supervision and management, market supervision and management system of safety. Every country around the world for its own economic security has its own management model and system, to economic security protection and supervision.

In international politics, food is a powerful political weapon than oil. China after 30 years of reform and opening up, and has initially established the socialist market economic system, opening to the outside world is toward comprehensive, wide, deep the direction of development, and the national economy has maintained fast and good development speed, by the end of 2000 GDP breakthrough \$1 trillion mark. Goods shortage have basically concluded, the relation between market supply and demand, major changes people's life in general to reach the well-to-do level, the national poverty population to drop year by year, people are share reform, opening up and economic development benefits.

From the macro economic management conditions and the ability to see, China suffering from the global financial crisis, according to the test of the global

financial crisis, the harmful effects of foreign trade down significantly, and national foreign exchange reserves appear to reduce, grain reserve is not enough, the foreign debt increases year by year, debt structure is not reasonable, the national economic security situation is not optimistic.

In the short term, food economic security is faced with more and more of the risk. But in the long term operation point of view, China's grain economic security in a lot of hidden trouble, eliminate these hidden danger need long time of hard work.

## 2. The Influence of The Main Factors Of Grain Economic Security

### 2.1. Financial risk

Financial structure unbalance and financing form deformity development focused on bank risk, China's financial risks, and from the state-owned commercial Banks and state-owned enterprise. Due to the financial system reform of state-owned enterprises and the progress of relatively lags behind, the state-owned commercial Banks non-performing loans increased year by year, some of which have already become the capital, and the state-owned enterprise benefit is not good, some of the years of accumulation of non-performing loans estimate it is difficult to repay.

Banking risk concentration, asset quality is general, securities implied great financial risks, the insurance company risk is not allowed to be ignored. If the ratio of non-performing assets of more than 25%, the bad assets absolute number more than the 70% of the total amount of residents' deposits. China's banking credit assets is about half of the real estate and real estate loans or directly related to form there, real estate industry is not hidden risks involved.

The RMB exchange rate mechanism defect lead to national welfare loss, residents deposit always servicing, if economic stability, social and political security, national credit reliable, is the possibility of large-scale comprehensive run little, but also can't rule out local run risk.

Part of the non-bank financial institutions and rural credit cooperatives illegal operation, cause irreparable loss, cash a difficulty, and cause local financial risk increases the possibility of. The financial system to economic security risk potential impact cannot be underestimated.

In the transformation mechanism of financial institutions risk outstanding. The second financial security is from the futures and stock market. Due to the mature standard institutional investors is not much, market construction time is not long, the law is not perfect, the management is not standard, therefore, futures and stock market fluctuations of the potential threat. Directly influence the social and economic security.

Capital project control effectiveness severely weakened, interest rate risk is highlighted, informal financial huge become financial security hidden danger, the more worrying is the systematic financial risks to economic growth and economic stability destructive, they will not only make relevant personal and family direct damage, also can make the national economy and the people's economic security problems affected.

## 2.2. Debt risk

In order to overcome the financial crisis, the government adopted a proactive fiscal policy, national debt issues, increase government spending, which cause financial debt burden of the rapid increase monk to continue to increase trend is a concern, according to the central government debt burden ratio calculation, the debt burden is very heavy.

If you consider the state of state-owned enterprise old worker endowment insurance debt, debt burden is heavier. National debt burden is heavy, means that economic security is lower, the greater the risk. Food economic debt is increasing year by year, food economic security problems have obvious highlights.

## 2.4. External impact

With the development of the global financial crisis, the Chinese economy and the world economy contact more widely and more thorough, economic globalization has become a worldwide trend. In view of globalization brings us opportunities at the same time, must also see we are faced with the challenge of economic security, including the part of individual, family economic security brought about by the potential risks.

As part of the agricultural products and finished goods tariffs reduced year by year, non-tariff protection gradually eliminate, apparently to farmers for business units of the department of agriculture and farmers in the American and European countries and the competition

## 2.3. Employment and social security pressure

### School-age labor rapid growth of the population.

The laid-off workers again obtain employment has become an increasingly important issue. The transfer of rural surplus labor force, with the quickening of the process of industrialization, the rural labor force will inevitably be moved to urban areas, the rural labor force price is low, the formation of the urban employment pressure. Authorities and enterprises organization reform and shunt personnel, multiple pressure integrated together, and population size and growth trend, make the employment pressure become at present and in the future for a quite long time period influence economic security of potential risk factors.

**Social security problems.** For many years, our country implements low wages, high employment system, the original accumulation into construction, neither sound suitable for China's national conditions of old-age security system, also have no reserve enough social insurance fund. Social security is the total population of 35 million people. Worker individual endowment insurance fund account empty account size, is about 1.4 trillion yuan. The key to the problem is, if not establish suitable for China's national conditions of the social security system, this in the hole and the hole will be more and more big, along with the aging of the population, social pressure will be more and more big.

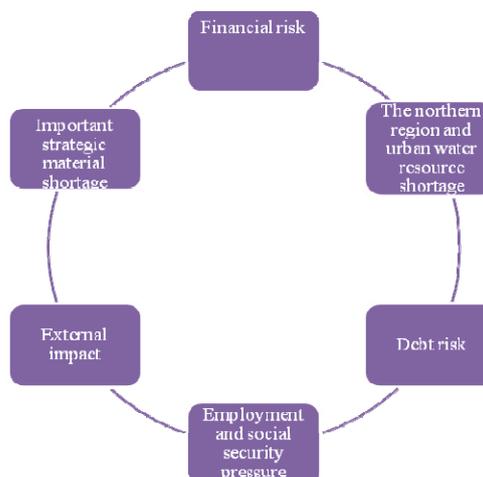


Fig. 1 The influence factors of China's food security

will be at a disadvantage. In a certain period of time, at a competitive disadvantage in the industry of personal and family interests may be direct damage. With external impact caused by the interest distribution pattern adjustment, damaged groups of economic security, decline could form the overall economic and social risk.

## 2.5. Important strategic material shortage

Grain, oil, water resources are important strategic materials. Westerners worry about China's food, causing the who to support China's argument. From the short term, China's food supply is guaranteed, in the long run, with China's population growth, industrialization of cultivated land decreased, soil degradation, the deterioration of the environment, etc., the grain problem

is not blind optimism. Historical experience shows that every time China imported food growth with the international market prices rising greatly.

## **2.6. The northern region and urban water resource shortage**

Water resources per capita is only a quarter of the world average level, water resources in time and area distribution imbalance, the south north little, most parts of north per capita water resources more low. In the northern arid and semi-arid region annual precipitation mainly concentrated in 7, 8, 9 three months, available water shortage. In over 669 cities, there are 400 cities perennial water supply shortage, of which 110 cities severe water shortages, day water deficit of 16 million cubic meters, the years of 6 billion cubic meters of water deficit. The problem of water shortages, directly related to people's life, relates to the food to economic development and social stability, has become a food influence economic security a major problem.

## **3. Food safety and food trade economic marketization**

### **3.1. The appropriate food protection is useful**

For a long time, China adopted to promote the work of the agricultural industrialization, reflected in food trade policy, is by the national food import and export right, every year to import and export food quantity by the state development planning commission according to the domestic food production, supply and demand to determine, and then assigned to the provinces and cities, and then by a food import and export enterprise foreign signing contract. This kind of food import and export trade system due to the decision delay long, lead to low efficiency, and can be a good rise to adjust the role of domestic grain supply and demand, China's accession to the world trade organization, it is urgent to set up the pace of globalization food import and export trade system, to ensure food security in the basis of international food trade.

### **3.2. Comprehensive open agricultural markets including food market, food free trade**

the state of the program control food market, has made food economy a great price to pay, the government's financial burden heavier huge subsidies for food has made financial weight hard to do, hard sales, collection and storage, planting plan, go against food industry structure adjustment and the optimal allocation of agricultural resources. In the long run, is not conducive to food economic growth; the current domestic has appeared food surplus, farmers' expectations in the market and increase the profit, free selling and buying the grain problem absolute "political", it is on food understanding of a misunderstanding, obstruct the food market reform process.

the food and the people's livelihood is related to the strategic product, in the Chinese food is not only economic problem, but also political issues. the international grain trade often by state ideology and political differences between countries influence. Although trade liberalization in a certain degree to reduce the possibility of food embargo, but food by certain powers as a diplomatic means to interfere in the internal affairs of other things exists. along with the improvement of trade dependence, food safety degree increases.

China as agricultural production and export large country in making agricultural products trade policy, the first to safety of the main agricultural products take necessary control, more than population in relation to food to establish an effective risk prevention mechanism. To join the WTO, corn, wheat and corn will become China's main imports, imports of agricultural products will be more growth.

Once out of the Chinese food safety, in order to achieve the goal of food self-sufficiency, deal with import food (mainly corn and wheat) market access to food make appropriate provisions. In making market access to food, should consider to other WTO members of the acceptable level.

China is a farmer accounted for 70% of the population, agriculture as the foundation industry in the whole industry structure are at a disadvantage, import and export, what proportion of import and export, is to promote the growth of national economy, or cause national economic recession, the government should control. overmuch import food, can cause the short term urban consumption price down, but in the long run, if the food and agricultural income is not that food production will be hit, the influence to China's food security and the interests of the whole society.

Developed countries and regions agricultural population proportion of total population is small, with high subsidies to maintain food of high cost and high price, in order to balance urban and rural income levels. China has 800 million farmers, agricultural population accounts for the vast majority, should pay attention to the interests of the coordination between urban and rural areas. economic globalization and trade liberalization in addition to the free flow of production factors provide sufficient opportunity outside, free flow of capital more speculative, may cause panic bigger, to domestic food market order brings not safety doubled. Once it has a large area of food, not only endanger the agriculture, but the whole national economic system, is not only affected by farmers, but the whole country. appropriate food protection is useful. Open markets is a trend, we must control the speed of the open. Implement a tight with loose open, well preparation, and gradually reduce the negative effects of after opening.

### **3.3. Choose standard point, and gradually let go of grain circulation field**

In let go of the right of import and export at the same time, moderate let go of domestic grain and oil market. Conform to the food import and export enterprise

conditions of the collection, storage and warehousing, processing production, trade sales enterprise through the contract purchase order way food, through the market competition of the objective effect, guarantee the farmers' income growth.

### 3.4. Foreign food enterprise is basically home and abroad, ltd.is downstream integration management

China's grain purchase storage transportation link has many export processing enterprise can't go into the place, the overall operation will rely on the domestic sale department, can't independent decided to import or export time, limiting the export enterprise management breadth and depth. The enterprise did not cross area to the food of right to acquire, difficult to form and supply chain relationship butt, and, in some areas, farmers lack of end users or processing enterprise effective guidance, blindly regardless of local conditions for the development of some high quality agricultural products, resulting in high quality at a low price.

### 3.5. China's agricultural subsidies is a kind of investment subsidies

Mainly used to buy production material, led to the agricultural production material price distortion, reduce the agricultural production material distribution efficiency. In order to adapt to the WTO rules, change the way of agricultural subsidies, the center is by providing agricultural subsidies to mobilize the enthusiasm of the producers, shall establish to agricultural support especially grain price support for the core of the policy system, support methods should be driven by investment subsidies to output the final establishment of subsidies, subsidies to production as the main body of the agricultural subsidies support mode.

## 4. Food economic security must establish food trade risk prevention mechanism

The food trade safety problem is an objective existence, as trade compliance degree rise, food insecurity, a higher level. Food trade unsafe problem exists, force us to make agricultural products trade policy, must from the place of the international environment start, set up effective risk prevention mechanism.

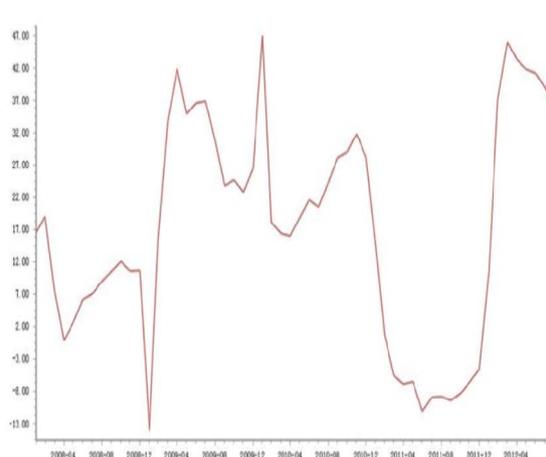


Fig. 2 2008 - April 2012 Chinese grain import quantity change

## 4.1. Risk prevention monitoring indicators and implementing measures

Risk prevention mechanism with minimal efficiency loss as the prerequisite. To establish risk prevention mechanism, of pursuit is a certain safety level of the minimum efficiency loss or a certain efficiency loss the maximum safety level. Inevitably to agricultural and food trade in a certain degree of restriction or control, leading to the loss of part of the agricultural efficiency. The efficiency loss actually make up the food security of a kind of price.

The risk control mechanism will mainly use economic and legal means, as far as possible to reduce administrative intervention. The administrative department of food lack of domestic and foreign market agile strain capacity, at an informational disadvantage, it is hard to do and the consistency of the market changes, often cause huge loss of efficiency.

The food trade risk prevention is food safety system in a link, its role in the size of the safety system is depends on each link synergy. The risk control mechanism should as far as possible and international multilateral agreements consistent.

Pays great attention to the influence of grain supply and import capacity factors control. Will trade compliance degree as monitoring and control indicators, will make the risk control mechanism into simple on food import and export scale of administrative intervention. To import and export quantity direct administrative intervention, to a certain extent, destroy the market mechanism to realize the function of the trade balance.

## 4.2. China's food safety international environment and agriculture's basic situation

To prevent or mitigate the international political relations have worsened to our country food security, the threat from the following aspects: monitor the food trade degree of compliance control in a reasonable range. To 2010 years or so, china's grain gap will reach 40 million ~ 50 million, the degree of trade compliance will reach 6%. Considering the future increase agricultural

efficiency and market effect results, agricultural structure amplitude may be greater than in the past, so trade compliance degree should be appropriate to relax some. From the perspective of the trend of agricultural products trade liberalization, the international multilateral negotiations could be the minimum grain import access opportunity to improve to more than 5%. Integrated above several aspects, in the future ten years china's grain import scale reasonable boundary is trade compliance to keep degree between 5% and 10%. In practice should also be based on the years of grain supply and demand situation agile adjustment, must not too rigid.

The strict control of the cultivated land occupied for non-agricultural. In the process of industrialization of cultivated land occupied is inevitable, but when cultivated land occupancy faster than the speed of growth in the food production, food security has a threat. Cultivated land area decided to one country food potential supply capacity. If to increase food imports will save out of cultivated land is still reserved for agricultural land, mainly for the production of agricultural products with export competitiveness, once appear, such as food embargo and so on events, we can in a relatively short period of time will save out of the cultivated land reduction for grain, thus effectively

control emergency to our country food security may harm caused.

Make full use of international bilateral and multilateral agreements, and strive to establish a long-term stable relationship between food import and export. Our country is a food trade country, food trade and trade in the direction of change, often can cause severe fluctuations in the international market. If we will every food imports released as soon as possible, then will give the international market a clear expectations, will not be caused sharp fluctuations in the international market.

Scattered food imports of political risk, and some exporters and establish food trade partnership. China's grain imports mainly concentrated in the beauty, and the two countries, such trade pattern formation of the exporter to rely on imports, and food security as a potential threat. Can consider to increase from australia, europe and south america food imports.

To import food currency needed to monitor the amount. Our country is imported grain needed to exchange co., ltd., dosage, from china's actual conditions, it is not possible to take out a large number of foreign exchange for import food. In order to ensure food safety of economy, china's agricultural and food must keep net export status.

**Tab. 1** China's food safety situation

time	Grain import quantity (ten thousand tons)			Predict import quantity (ten thousand tons)		
	corn	wheat	soybean	1997year	2010year	2020year
2009—2010year	157	120	850	417	976	2224
2000—2010year Compare prices	80%	50%	28%	In 2010 China imported 80% soy is genetically modified soybeans Will China become the world's largest food importer in 2020		
1997—2010year	China net minus 123 million mu of cultivated land area		China's grain planting area of 1.635 billion mu	China's per capita arable land area of 1.38 mu Accounted for 40% of the world's average level		

**Ann.** The state council development research center

## 5. Discussion

It is the development of national economy to industrialization level period. The dual economic structure have fundamental change, food production has been basically realized mechanization, electrification and scale. This period is characterized in grain production potential into full play, and the total population, stabilize or decline, thus on food consumption, tend to be stable. In the food consumption, people more attention is not total amount and variety of problems. During this period of grain yield ratio for more than 80%, higher than the proportion of urban population 80% of the total population, the food security of the specific expression, for all the people at any time can in the physical and economic gain enough, safe and nutritious food, to meet its positive and healthy life of dietary needs and food preference. At this stage, grain consumption in people's daily food consumption in proportion to start decreased significantly, the importance of other foods will

gradually focus on the importance of food, food security will gradually give way to food safety and food safety. Food security key into food nutrition and health care as well as with the living standards improve and produce food preference.

## 6. Conclusions

The national food security reflects the general rule of macroeconomic regulation and control of food, food security mechanism is the core of the grain macro-control mechanism.

As a kind of resources are scarce, its price will rise, inhibit its demand, prices lead to develop this resource technology progress, finally some resources supply and demand balance.

The ups and downs of the food prices has its own rules: endogenous, relevance, liquidity, than effect. The rise in the cost of food production, the market natural endogenous price, Soybean prices, causing wheat, corn,

rice prices rise associated; The comparison of the grain benefits rise, farmers have no enthusiasm, comparative benefits, farmers will not production grain; Grain supply and demand have liquidity, once China's grain supplies, the world resources abundant not where. Food is the requisite of the life, the price elasticity is small, the food if prices, people to their demand will not be reduced a lot, if price cut, people to their demand does not increase much. Food is the social base price, even the price of food.

With the urbanization way, raise people birth of child rearing cost and opportunity cost, restrain population growth; With the urbanization way concentrated population, enterprise, market, infrastructure, etc., to reduce the development of dispersion caused by the waste land, to save the more land. Due to the transfer of surplus labor force, the agricultural labor productivity, improve agricultural scale management, agricultural production is greatly increased.

Many people and little land country, avoid less land and scarce disadvantage, will land allocation to a higher income industries and departments, give full play to the advantage of cheap labor and production, labor intensive products; To many people less countries, is to avoid labor and less expensive disadvantage, large-scale use of land, grain output, more than the less disadvantages in exchange transfer into advantages; In international trade, many people and little land country with labor intensive sex products for food products import export, less many countries agricultural products in their own country for the production of the high cost of labor force, the two sides of the products in international trade have been interest.

Food security is the most basic index per person a day life need 1 kg of grain. The world food market is not China reliable granary, each year 1.3 billion people need to consume 490 million tons of food a year, the world grain market total supply only for 236 million tons. The world food market is perfectly competitive markets, with export for it countries government subsidies of agricultural products, the economy is economical.

Engel coefficient research tells us: when social per capita reached \$2000, people on food and food spending accounts for the proportion of the total change, already approach is equal to zero, food and food spending relative stability.

## Acknowledgements

The nature of the food security is that it supply stability and self, it is the existence of the law of value,

## Vitae



determine the food itself is not safe. Food security is a super economic category, and the reasons lies in food as an economic category market characteristics, that is a very low price elasticity of demand and supply price elasticity. The basic necessities of food quality decides the low elasticity of demand, grain production of long term nature lead to closed economies in the short term is difficult to increase the quantity supplied, caused the low elasticity of supply. The problem of food security policy nature is to reduce the grain supply and demand price elasticity. According to the national food security long-term planning outline our country food security standard.

## Reference

- [1] Wang JinLong, in: The financial risk and financial risk. China financial and economic publishing house , Beijing, 2010,p114-120.
- [2] Liu ShangXi ,T in: he macro financial risk and the government fiscal responsibility. China financial and economic publishing house, Beijing, 2011, p230-245.
- [3] Zhang YouWen, Zhou JianMing, in:Such as the economic security and financial globalization challenge . Shanghai academy of social sciences press, Shanghai, 2012, p67-80.
- [4] Feng Zhiqiang, in: Chinese food economy research.World civilization press, Hong Kong ,2001, p23-25.
- [5] Feng Zhiqiang, in:The innovation strategy. China market press, Beijing, 2010,p102-104.
- [6] China's national development and reform commission, The national food security plan for long-term, 2008. 11.
- [7] Henan provincial people's government, The central plains economic zone construction outline (try out) , 2011,6.
- [8] The state council about support in Henan province, Speed up the construction of the central plains economic zone's instruction opinion, [2011] NO.32, 2011, 8.
- [9] The United Nations food and agriculture organization,The sustainability of the crisis to deal with food safety problem, 2010,07.
- [10] The state council,modern agricultural development plan (2011-2015) notice,2011,11.
- [11] The state council,grain circulation management regulations.2004.5.
- [12] Affairs office of the state council.Grain Law (draft) ,instructions, 2012.3.

Dr FENG zhiqiang, was born in 1962-10. He obtained a Master of economics degree in economy management in economy department from WUHAN University.

He worked as a civil servants in education department of Henan province and grain bureau of Henan province. His research interest includes food economy, enterprise development strategy, and macroeconomic management.