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Research on Measures for TBT of Pork Export

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Abstract With the deepening of economic globalization and increasingly fierce competition of trade liberalization in WTO member countries, the effect of traditional trade protection measures is gradually weakening or even removed. In recent years, Technical Barriers to Trade (TBT) as a category of nontariff barriers to trade, are the widely divergent measures that countries use to regulate markets, protect their consumers, or preserve their natural resources (among other objectives), but they also can be used (or perceived by foreign countries) to discriminate against imports in order to protect domestic industries. These directly or indirectly lead to gradual rise of trade friction of China's pork export. This paper analyzed background and significance of measures for TBT of pork export, current situations of researches on TBT both at home and abroad, and came up with new ideas and viewpoints for further strengthening measures for TBT of pork export.

Key words Trade barriers, Pork, Export, Measures, Researches

1 Research background and significance

With the deepening of economic globalization and increasingly fierce competition of trade liberalization in WTO member countries, China also joined the WTO in the status of a developing country. Through several rounds of trade negotiation, tariff of all WTO member countries has been greatly reduced, and world trade protection changes from traditional trade barriers to non-tariff trade barriers. In non-tariff barriers, technical barriers to trade (TBT) have become major means of all countries to protect trade and also become essential factors influencing international trade in the 21st century.

China's entry to WTO creates great opportunity for export of China's meat products. Firstly, meat products are still labor intensive products in China and the production cost is relatively low. Secondly, large importers, such as Japan and Russia, are neighbors of China, which provides gifted geographical advantages of meat product export. Besides, some advanced meat product production enterprises are gradually growing in global competition, generate competitive demonstration effect on the same kind of domestic industries. However, whether it is able to turn this opportunity into realities depends on international competitive power of China's meat products. Apart from improving technologies and reducing cost, the key is to handle various TBTs in export of meat products and change unfavorable factors to real competitive advantage.

Entry to WTO creates opportunity for China's pork production enterprises but also brings challenges. At present, some pork enterprises are obstructed repeatedly and have great difficulties in in-

ternational competition. Apart from relatively low standard of self products, various TBTs set by developed countries are major reasons. In the Twelfth Five-Year Guideline period, China's pork export is faced with many obstacles: (i) overall credit and reputation of China's pork sanitation is relatively low; (ii) the world pays close attention to safety of pork products, leading to constant intensification of various TBTs. Therefore, on the precondition of rapid growth of global pork production and trade, it is of realistic significance to find out root cause of China's pork export, explore how to deal with foreign TBTs, and increase pork export.

Rice is an important variety of agricultural products in Thailand for foreign exchange earning. In 2007, China's pork export earned foreign exchange up to 910 million USD. By 2011, the volume of China's pork export reached 107 000 tons, increasing 3.4% compared with the same period of last year. And the amount of export was 403 million USD, increasing 17.8% compared with the same period of last year. For many years, pork export plays an important role in driving development of China's animal husbandry, developing rural economy, and promoting social stability. However, since China's entry to WTO, the export of agricultural products has been influenced from various TBTs. According to survey of Ministry of Commerce, TBTs influence about China's 90% agricultural product export enterprises, causing annual loss of about 9 billion USD. The EU, United States and Japan laid down the most TBTs for agricultural products of China. These developed countries formulated laws, regulations and standards, as well as harsh packaging system and requirement for food safety, animal and plant inspection and quarantine, pesticide residue, and environmental protection. These increase export cost of China's agricultural products, reduce international competitive power of China's agricultural product, and seriously impair development of China's agricultural product trade.

China is a large pork producer and consumer and has ranked the first position of pork producer in the world for many years with the pork output accounting for 45% of the world total pork output. In 2008 – 2010, total pork output of China rose for three consecu-

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tive years; in 2011, it dropped slightly to 50.53 million tons, dropping about 0.34% compared with 2010 but still higher than total output of 2009 (according to data of <http://livestock.feedtrade.com.cn>).

In 2012, China's pork output constantly increased. According to *Statistical Communique on 2012 National Economic and Social Development* issued by State Statistics Bureau on February 25, 2012, the total output of meat products in 2012 was 83.84 million tons, increasing 5.4% compared with the same period of last year. The pork output was 53.35 million tons, having increase of 5.6%. China's pork industry plays an important role in world meat industry and trade stability. The *Agricultural Outlook Report* issued by Organization for Economic Co-operation and Development (OECD) and Food and Agriculture Organization of the United Nations stated that global pork consumption grows at an annual rate of 2%. By 2018, the global meat consumption would grow to 320 million tons with pork consumption accounting for 37.5%. Therefore, China's pork industry still has considerable development potential.

In January to November of 2012, China exported 59 853.9 tons of pork, dropping 20.05 compared with the same period of last year, the export amount was 270 million USD, dropping 10.9% compared with the same period of last year. Besides, from analysis on China's pork export in recent years, we found that export volume only takes up a small portion of the total pork output, which is closely related to TBTs laid down by the EU, the United States and Japan, and etc. At present, TBT has become the largest obstacle restricting China's pork export. This greatly restricts export volume of China's pork, influences foreign exchange earning of China's characteristic agricultural products, and consequently affects steady development of China's pork industry. Thus, researches on influence of TBTs on China's pork export have profound and active realistic significance.

Facing 140 WTO member countries, taking international operation and development road is a major choice of China's port industry. According to *Food Safety Law of the People's Republic of China*, *Law of the People's Republic of China on Import and Export Commodity Inspection*, *Law of the People's Republic of China on the Entry and Exit Animal and Plant Quarantine*, *Animal Husbandry Law of the People's Republic of China*, *Animal Epidemic Prevention Law of the People's Republic of China*, *Law of the People's Republic of China on Product Quality*, and their implementing regulations, as well as *Measures for the Safety Administration of Imported and Exported Food* issued by State Administration of Quality Supervision, Inspection & Quarantine, China has formulated a series of regulations and systems, which play a great role in quality and safety of export pork. However, there is drawback in implementation process. After consulting related data, we found that there is nearly no research on measures for export pork tackling TBTs from the perspective of agricultural economics and international trade. Therefore, systematic launching researches on measures for export pork tackling TBTs will be significant and energetically raise inter-

national market competitive power of China's export pork.

In sum, launching researches on influence of TBTs on pork export is helpful for coming up with pertinent recommendations for pork export and providing some feasible measures for domestic pork production enterprises for expanding international market.

2 Current situations of domestic and foreign researches

2.1 Current situations of foreign researches In recent years, foreign scholars summarized and reviewed policy disputes and research method focusing on product standards and TBTs, and they summarized several useful advances in product standards and researches of TBTs. Firstly, they carried out related survey on quality of exported products of enterprises in developing countries. Secondly, they designed methods for estimation of limitation of product standards to trade. Thirdly, they established an economics method that can use survey data and micro-data to study standards in export dynamic system (Keith E. Maskus & John S. Wilson, 2000). In *Standards and Protection* (2002), Ronald Fischer & Pablo Serra studied effect of standard trade protection and came up with the conclusion that minimum standard formulated by government is trade protection, even if non-discriminatory on the surface. They believed that TBTs are Technical Barriers to Trade, i.e. standards, technical regulations and conformity assessment procedures.

In research methods, western scholars also made extensive exploration. In empirical researches, OECD collected extensive industrial data and analyzed the influence of TBTs on trade cost, and reached the conclusion that the cost for various technical standards and regulations plus testing and certification of OECD member countries accounts for 2–10% of the total production cost. Calvin Linda and Barry Krissoff et al. (1997) analyzed tariff and TBTs faced by American apple in Japan, South Korea and Mexico, established partial equilibrium model respectively for three export markets, calculated equivalent duty of health quarantine measures of the importer, and evaluated the influence of non-tariff measures on trade. David Orden et al. (1996) built American avocado market model for America prohibiting import of avocado from Mexico, analyzed introduction of plant diseases and insect pests from import will influence domestic production. They concluded that limited technical barriers to trade taken to minimize the possibility of prevalence of plant diseases and insect pests related to import trade will bring about higher welfare losses than the increase of domestic cost resulted from prevalence of the plant diseases and insect pests.

2.2 Current situations of domestic researches In theories, scholars devoted to researches on influence of TBTs on China's export trade are basically based on overview of technical trade measures of the United States, Japan and EU. They elaborated restriction of TBTs of these countries to China's export and stated that the barrier is mainly resulted from the fact that China's export market is mainly concentrated on the United States, Japan and EU, China

is free from the multilateral trade system, China's export industry is weak, China fails to settle problems using WTO dispute settlement mechanism in a skillful way, and China pays little attention to TBTs.

Zhao Yuming (2002) used partial equilibrium analysis tool with reference of tariff analysis method, assumed TBTs are trade policies similar to tariff, and used the welfare changes of cost – benefit to study the influence of TBTs on importers and exporters. They found that the influence of TBTs on trade volume is uncertain, depending on elasticity of the demand of international market for the domestic product. If the demand is highly elastic, the trade volume will drop; otherwise, the trade volume will rise.

Wu Xumin and Linjian (2004) analyzed trade of agricultural products. They assumed that if the importer sets TBTs, the production cost will increase and the supply elasticity will become lower. As a result, the price at international market rises and the trade flow drops. Accordingly, it will bring about trade restriction, trade prohibition, and trade diversion.

In the opinion of Li Chunding (2005), for exporters, establishment of TBTs will lead to trade restriction effect. Related researches distinguish different kinds of effect brought about by TBTs on trade volume in short-term and medium and long term conditions. Through anti-driving mechanism, short-term restriction effect promotes exporters to speed up technological innovation, generating trade promotion effect.

Wang Zhiming and Yuan Jianxin (2003) analyzed trade effect of TBTs using mathematic method and production possibility curve. They held that TBTs reduce welfare level of restricted countries and TBTs seriously restrict scope and depth of China's use of international market, leading to gradual deterioration of China's trade condition, decrease of trade benefit, and drop of social welfare level. In short term effect, Pan Jing (2004) analyzed the influence of TBTs on export trade using Panel model and concluded that there is significant negative correlation between TBTs and export volume and export amount.

China's scholars started late in theoretical researches of TBTs and research methods and idea novelty are not as remarkable as foreign scholars. China's scholars started understanding of TBTs from WTO rules. Ye Bolin and Chen Zhitian analyzed TBTs from the perspective of standardization; Jin Xiangrong *et al.* (2001) focused on model characteristic of non-tariff barrier as a system and its influence of world trade in Economic Analysis of Trade Protection System, analyzed operating mechanism and economic effect of non-tariff trade barriers commonly used by new trade protectionists, and discussed the trade protection system formed in the transformation of traditional Chinese economy and its effect.

Domestic scholars carried out few researches on TBTs of agricultural products. In this respect, China lags far behind developed countries, lacks systematic researches and forecast, and only conducts rough researches on influence of environmental protection laws, regulations, and standards and internalization of environmental cost on international trade and direct foreign investment.

Most researches are generally focusing on analyzing current situations of TBTs in export of agricultural products and coming up with solutions. Besides, most researches discuss some basic characteristics of TBTs, and few researches are deep in characteristics of agricultural production and agricultural products. In research of TBTs of agricultural products, research findings are few and it is difficult to combine special characteristics of agricultural products with problems of actual TBTs. For researches related to international trade of China's meat products, it is just started in recent years. The existing research findings are mainly in following aspects:

Qiao Juan (2003) made a research on international competitive power of China's meat industry, analyzed current situation of China's meat industry using the theory of industrial competitiveness, which provides research support for international trade of China's meat products. China Meat Association (2003) summarized and analyzed data of *World Statistical Yearbook*, and stated that revitalization of China's meat industry needs cultivating famous meat products and taking the road of brand development, and meat production enterprises should make effort to improve their strength.

3 Overall evaluation and recommendations

Existing research findings show that domestic academic circle just starts researches on TBTs faced by export of meat products. Experts have not made systematic statistical analysis and quantitative researches on TBTs of pork export. Most existing researches are relatively simple and general. They have no specific indicators or just reach qualitative conclusion. At present, few scholars carried out special researches on TBTs of pork export. Therefore, exploring influence of TBTs on pork export and coming up with pertinent policies will have certain theoretical value and realistic significance. Besides, scholars should put forth effort on analyzing TBTs on pork export, explore influence of TBTs on pork export using economic theories, establish model with pork export as an example to make empirical analysis, and then come up with pertinent and feasible recommendations for tackling TBTs. It is expected to promote China's pork industry to constantly expand international market and further increase China's pork export.