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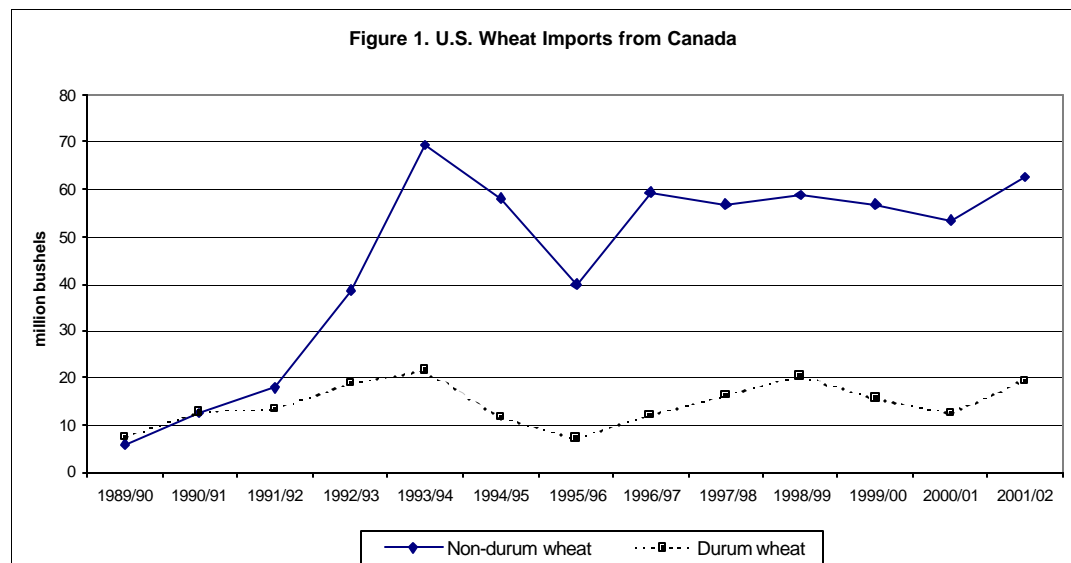
The U.S. - Canada Wheat Trade Dispute and the Possible Effect of Import Restrictions

Won Koo and Jeremy Mattson

On December 17, 2002, U.S. Trade Representative Robert Zoellick announced that the United States will file a case against Canada in the World Trade Organization (WTO) over the wheat trading practices of the Canadian Wheat Board (CWB). The United States is also challenging Canada's requirements to segregate imported grain in the Canadian grain handling system and the country's discriminatory policy that affects U.S. grain access to the Canadian rail transportation system.

In addition to the case against Canada in the WTO, the U.S. Department of Commerce initiated antidumping and countervailing duty investigations last October at the request of the North Dakota Wheat Commission, the U.S. Durum Growers Association, and the Durum Growers Trade Action Committee. In November, the U.S. International Trade Commission ruled that undervalued Canadian wheat exports to the United States may hurt U.S. farmers by driving down the price of wheat. This preliminary ruling allows the Department of Commerce to proceed with an investigation into whether tariffs should be imposed on imports of hard red spring (HRS) and durum wheat from Canada. Meanwhile, members of the CWB and the Canadian government argue that their policies are legal under international trade agreements and that there is no evidence to show that Canada is dumping grain in the U.S. market.

These are the latest in a number of wheat trade disputes that have arisen between the United States and Canada since the Canada - U.S. Free Trade Agreement (CUSTA) was implemented in 1989. Figure 1 shows the dramatic increase in non-durum and durum wheat imports from Canada since 1989. Most of the non-durum wheat imports consist of HRS wheat. Wheat imports from Canada increased dramatically in the early 1990s. In



Source: Foreign Agricultural Service, USDA

marketing year 1993/94, non-durum wheat imports from Canada reached a high of 69 million bushels, while durum wheat imports reached a high of 22 million bushels. After a dispute in 1994 and a negotiated settlement that restricted Canadian exports, imports from Canada declined, but then increased again after 1995/96.

During the five years from 1996/97 to 2000/01, non-durum wheat imports from Canada were fairly stable, averaging 57 million bushels per year. Meanwhile, durum imports increased to 20 million bushels in 1998/99, but then decreased to 13 million bushels in 2000/01. After five years of stable or slightly declining non-durum wheat imports and two years of declining durum wheat imports, there was a significant increase in both non-durum and durum wheat imports from Canada in 2001/02. In the 2001/02 marketing year, Canadian non-durum and durum wheat exports to the United States totaled 62.4 and 19.3 million bushels, respectively. These imports equaled about 20 and 24 percent of U.S. domestic consumption of HRS and durum wheat, respectively.

The North Dakota Wheat Commission has requested a tariff-rate quota (TRQ) of \$50 per metric ton (\$1.36 per bushel) for imports of durum exceeding 300,000 tons (11 million bushels) annually and for imports of non-durum wheat exceeding 500,000 tons (18.4 million bushels) annually. The Commission has proposed that the TRQ should be established for two crop years and then adjusted or eliminated in subsequent years as fundamental reforms of the CWB are implemented. If this TRQ were to be implemented, it would substantially decrease the volume of wheat imported from Canada; non-durum imports would drop to a third of the level in recent years. Imports beyond the TRQ restrictions would be unlikely because the tariffs would eliminate their cost-competitiveness.

Data were analyzed to estimate the effect that this proposed TRQ would have on U.S. HRS and durum wheat farm price and income. To do this, we estimated what the effect would have been in previous years had imports been restricted to the TRQ levels. Table 1 shows the estimated increases in income and price for U.S. HRS and durum wheat producers that would have resulted in each of the last five years had imports from Canada been restricted to the proposed quotas of 18.4 million bushels of non-durum wheat and 11 million bushels of durum wheat.

Imports were highest in 1998/99 for durum wheat and in 2001/02 for non-durum wheat, which explains why the effects would have been greatest in those years. If we assume that the United States would continue importing from Canada at the 2001/02 level without a TRQ, then implementing the TRQ proposed by the North Dakota Wheat Commission would increase HRS and durum wheat prices by \$0.30 and \$0.43, respectively, and HRS and durum wheat producer income by \$105 million and \$19 million, respectively.

By comparison, a less restrictive TRQ level of 40 million bushels of non-durum wheat and 14 million bushels of durum wheat would increase HRS and durum wheat prices by \$0.15 and \$0.27, respectively, and HRS and durum wheat producer income by \$49 million and \$14 million, respectively.

Table 1. Retrospective effects of the proposed TRQ on U.S. HRS and durum wheat farm price and income¹

	Income Increase (million \$)	Price Increase (\$/bushel)
<i>Hard Red Spring Wheat</i>		
1997/98	83.8	\$0.24
1998/99	90.5	\$0.26
1999/00	87.5	\$0.25
2000/01	96.6	\$0.24
2001/02	104.5	\$0.30
<i>Durum Wheat</i>		
1997/98	3.6	\$0.25
1998/99	32.9	\$0.45
1999/00	24.9	\$0.23
2000/01	5.7	\$0.08
2001/02	19.4	\$0.43

¹This table shows the estimated increases in U.S. HRS and durum wheat farm income and price that would have resulted from restricting imports in each year to

TRQs may provide a short-term solution, but a more permanent alternative to solving the U.S. - Canada wheat trade problem is to harmonize marketing practices and agricultural policy in the two countries. The first step in this process is to restrict the activities of the CWB and make its marketing activities transparent.

Mad-Cow Disease Effects on Demand for U.S. Meat Products in Japan and South Korea

Hyun J. Jin

New information about food safety can stimulate a sudden, significant shift in concern by the public, resulting in a pronounced reduction in consumer demand. One such example is the declining level of beef consumption in Europe and East Asia, stemming from the outbreak of Bovine Spongiform Encephalopathy (BSE), known as mad-cow disease.

BSE is a lethal, central nervous system disease, which specifically targets cattle. The disease is characterized by the appearance of vacuoles, clear holes in the neurons of brain tissue in affected cattle. BSE was initially diagnosed in cattle in the United Kingdom in 1986. The occurrence of BSE in cattle reached epidemic proportions in Europe by 1992, with more than 1,000 reported cases. Within a thirteen-year period, from 1987 to 2000, the total number of infected cattle swelled to 180,000 in Europe. Consumers were suddenly alerted to the public health danger on March 20, 1996, when the U.K. government announced a possible link between consumption of BSE-infected meat and the development of a new variant of its human equivalent, known as Creutzfeldt-Jacob disease. The release generated a substantial level of media attention and resulted in an immediate and significant decline in beef consumption in Europe. Concern over the disease has not been limited to consumers in Europe but rather has spread around the world.

In September 2001, the Japanese government reported the first case of BSE within their country. The case was the first outside of Europe as well as the first in Asia. The Japanese beef industry reeled under the combined reaction in its domestic and export markets. Many wholesalers and retailers suffered drops in sales ranging from 5 to 50 percent due to the concern over BSE. Consumption of beef in Japan fell sharply, and beef prices dropped significantly. The damage was compounded by the discovery of a second infected cow two months later. Third and fourth suspected cases were reported during the subsequent month, and the recurrent cases fueled consumer concern and ravaged Japan's beef industry.

Since BSE has mainly occurred in European countries, with the notable exception of Japan, studies of the disease outbreak and consumers' responses have focused on the cases in Europe. Jin, Sun, and Koo (2002) chose to expand the geographic limits of this research. Their study shows that there is an undergoing structural change in Japanese consumer preferences for meat; tastes have systematically moved away from beef to its substitutes, pork and chicken. As documented in economic literature, consumer response to food safety information has significant consequences for the food production industry and international trade [e.g., Henson and Mazzocchi (2002)]. Our current study goes beyond the results of the previous study by Jin, Sun, and Koo to analyze the effects of the Japanese BSE outbreak specifically on Japanese and South Korean import demand for U.S. meat products.

The two countries are selected because Japanese consumers have suffered a BSE outbreak in their country, while South Korean consumers have not. Non-parametric revealed preference analysis is used to test the consistency of consumption choices with demand theory. Consumption is tested to determine whether the Japan BSE outbreak has caused shifts in demand for U.S. meat products in Japan and South Korea. Empirical results show that the Japanese import demand for meat is unstable with excess violations in the Japanese data after September 2001, but not in the South Korean data. This suggests that the event influences Japanese meat import demand, but not South Korean meat import demand.

The results imply that without observing an outbreak in their own supply, consumers may not significantly change their consumption patterns, and that the relative influence of risk perception and risk attitude on consumer reaction depends on the perceived probability of being exposed to the risk. South Korean consumers might believe that their probability of being exposed to BSE-infected beef is smaller than that for Japanese consumers. Therefore, the different reaction in South Korean meat import demand is a natural consequence. Comparison between the two countries might have important implications for meat-exporting countries because Japan and South Korea are the primary importers of beef from such major beef-exporting countries as the United States and Australia. Moreover, Japan and South Korea are leading beef-producing and -consuming countries in Asia, and their cases can be used in predicting other Asian countries' responses to a BSE outbreak or similar types of food safety issues, as well as comparing responses in Asia to responses in Europe.

This study finds that structural change in Japanese consumers' preferences for meat, as suggested by Jin, Sun, and Koo (2002), has affected their demand for both domestic and imported beef, while South Korean consumers have not significantly changed their beef consumption.

United States Completes Free Trade Agreement Negotiations with Chile and Begins Negotiations with Central America

Jeremy Mattson

Agricultural Trade with Chile

Representatives for the United States and Chile completed negotiations on December 11, 2002, for a free trade agreement (FTA) between the two countries. Congress must approve the agreement before it can become effective; however, if approved, the U.S. - Chile FTA would be the first comprehensive trade agreement between the United States and a South American country. About three-fourths of both U.S. and Chilean agricultural products will be tariff-free within four years, and all tariffs and quotas will be phased out within 12 years.

Chile has not been a significant market for U.S. agricultural exports. While U.S. agricultural imports from Chile have averaged \$898 million per year during the 1997-2001 period, U.S. agricultural exports to Chile have averaged \$126 million per year. In 2001, less than 1 percent of U.S. agricultural exports were sent to Chile. On the other hand, the United States has been an important market for Chile's agricultural exports. About 30 percent of Chile's agricultural exports were purchased by the United States in 2000. Chilean exports amounted to 2.6 percent of U.S. agricultural imports in 2001, making Chile the eighth largest exporter of agricultural products to the United States.

Most of the imports from Chile consist of fresh fruit, wine, field crop seeds, and juice. About two-thirds of all U.S. grape imports are from Chile, which account for about one-fourth of the total U.S. grape supply. In 2001, Chile exported \$378 million of grapes and \$137 million of wine to the United States, in addition to significant amounts of corn seed, avocados, apples, apple juice, plums, peaches, and nectarines.

U.S. agricultural exports to Chile consist of grains and feeds such as corn, wheat, and corn gluten meal, but, with the exception of corn gluten meal, Chile has not been a significant market for U.S. agricultural products. About 10 percent of Chile's agricultural imports came from the United States in 2000. Instead, Argentina is the most important supplier of Chilean imports. The major agricultural products imported by Chile include beef, corn, wheat, soybean meal, animal and vegetable fats, and sugar. Chile currently imports no beef or soybean meal from the United States and only minimal amounts of sugar and fats. Canada has been the

biggest supplier of wheat in recent years, and Argentina the biggest supplier of corn. Of the \$136 million in Chilean corn imports in 2000, \$43 million came from the United States, and of the \$54 million in Chilean wheat imports in 2000, only \$11 million came from the United States.

If tariffs are removed, it is likely that Chile could increase exports of grapes and other fruit to the United States, which could have detrimental effects on producers in California. On the other hand, the United States may be able to increase exports to Chile of commodities such as corn, wheat, and beef. Canada and the European Union already have FTAs with Chile, and the country is an associate member of Mercosur (a trading bloc consisting of Brazil, Argentina, Paraguay, and Uruguay). The U.S. - Chile FTA would remove the advantage that these countries have in exporting to Chile.

Agricultural Trade with Central America

The U.S. government is continuing its push for FTAs, with the latest target being Central America. It was announced on January 8 that the United States and the Central American countries of Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua will start negotiations on an agreement to eliminate tariffs and other barriers to trade in industrial and agricultural goods, services, and investment. The goal is to complete negotiations by the end of 2003.

U.S. agricultural exports to these five Central American countries totaled \$1.0 billion in 2001, while agricultural imports from these countries equaled \$1.8 billion. From January through November of 2002, agricultural exports to the region equaled \$978 million and imports totaled \$1.7 billion. The major agricultural products imported from the region are bananas, other fresh fruit, coffee, and sugar. Since bananas and coffee, the two most important agricultural imports from the region, are not produced in the United States, they already enter the country tariff-free. Therefore, this agreement would not affect imports of bananas or coffee. It could, however, have a harmful effect on U.S. sugar producers, who could face increased competition from Central American producers.

The most significant U.S. agricultural exports to the region include wheat, corn, soybean meal, and rice. U.S. exporters face high tariffs in exporting products such as meats, rice, and corn to this region. Further, the Central American countries have negotiated free trade agreements with Canada, Mexico, and some South American countries which put U.S. producers at a disadvantage. Exports of beef, pork, poultry meat, rice, and corn to Central America could increase significantly if tariffs are removed.

Meanwhile, negotiations for the Free Trade Areas of the Americas, the proposed free trade pact for 34 western hemisphere countries, are still in progress and scheduled to be completed by 2005.

Recent Publications

Horizontal and Vertical Intra-Industry Trade in the U.S. Food Processing Industry, Agribusiness & Applied Economics Report No. 502, December 2002, by Changyou Sun and Won Koo.

Intra-industry trade (IIT), the simultaneous export and import of products within the same industry, has become a striking characteristic of the international trade regime in recent decades. IIT in the U.S. food processing industry is evaluated in this study. The IIT index is disentangled into horizontal and

vertical components and evaluated at 6-digit HTS product levels. The degree of IIT varies across different trading partners and sub-industries, and, for the U.S. food processing industry as a whole, it has been steadily increasing since 1989. Most of the IIT in the U.S. food processing industry is vertical in nature. However, horizontal IIT has been increasing faster than vertical IIT. The determinants of horizontal and vertical IIT are examined in a multiple-industry and multiple-country model. Industry characteristics show more significant effects on IIT than country characteristics. Product differentiation, market structure, and scale economies are all relevant in explaining the variation of IIT.

Third-Country Effects on U.S. Wheat Export Performance in Asian Countries, *Agribusiness & Applied Economics Report No. 503*, January 2003, by Hyun Jin, Guedae Cho, and Won Koo.

Market shares of U.S. wheat in Asian countries have decreased since the early 1980s. The decreased market shares may be associated with U.S. sales being displaced by competing suppliers, mainly Australia and Canada. Two factors have received great attention as potentially main reasons for reduced U.S. wheat exports: one is the relatively strong U.S. dollar, and the other is the growth and enhanced productivity of foreign agricultural sectors in competition with the United States. This study examines third-country effects on U.S. wheat export performance in Asian countries. An import demand model is developed to analyze the impacts of price competitiveness, exchange rates, and exchange rate volatilities on U.S. wheat market shares. Empirical results show that two factors, Australian wheat price and U.S. dollar values against the Asian countries' currencies, have significant effects on U.S. market shares in this region. Furthermore, exchange rate risks between the exporting and importing countries are found to be important.

Productivity Spillovers from Inward Foreign Direct Investment in the U.S. Food Processing Industry, *Agribusiness & Applied Economics Report No. 504*, December 2002, by Changyou Sun, Hyun Jin, and Won Koo.

Direct investment by multinational corporations across national borders has grown significantly in the world economy. With the growing importance of foreign direct investment (FDI), most countries have sought to attract foreign firms to invest in their countries. The objective of this research is to empirically examine whether inward-flowing FDI in the United States had any impact on productivity growth of U.S. domestically-owned firms in the food processing industry from 1988 to 1992.

The major findings are as follows. First, U.S. domestically-owned firms did not benefit directly from inward FDI through demonstration effects. Instead, increasing foreign presence was found to be negatively related to the productivity growth of U.S. domestically-owned firms. Second, the technology gap between domestic and foreign firms is small, but spillovers in the U.S. food processing industry have grown with the size of the technology gap. This emphasizes the importance of local firms' ability to absorb information. Third, the simultaneous equation model made an explicit distinction between demonstration and competition effects. Spillovers were bidirectional in the U.S. food processing industry, so foreign firms also benefitted from the competition with domestic firms. Fourth, although the demonstration effect from a foreign presence was negative, the competition effect resulted in even larger positive spillovers for U.S. domestically-owned firms. As a whole, the U.S. food processing industry still benefits from inward FDI brought by foreign affiliates.

The BSE Effect on Japanese Meat Consumption: Nonparametric Tests for Stable Preference and Structural Change, *Agribusiness & Applied Economics Report No. 506*, February 2003, by Hyun Jin, Changyou Sun, and Won Koo.

Food safety is an important issue for consumers today. Consumers' responses to food safety information can have potentially significant consequences within the food production industry and the international trade of agricultural and food products. If a food safety-related panic creates an interim or long-term upheaval in purchasing patterns for a certain food, it could result in a shift in market demand for the food. Current concern over the declining level of beef consumption in Europe and East Asia, stemming from the outbreak of Bovine Spongiform Encephalopathy (BSE), known as mad-cow disease, provides a good case study for changes in consumer demand due to food safety information.

This paper uses a nonparametric approach for testing whether there is a structural change in the meat demand of Japanese consumers due to the BSE (mad-cow disease) outbreak in the country. The axiom of revealed preference is utilized to test the stability of preference in Japanese meat consumption. The matrix of weak form of revealed preference (WARP) is partitioned and Kruskal-Wallis statistics are derived to evaluate whether the switches of preference are transitory or due to a structural change. Empirical results show that Japanese meat demand is currently unstable and has undergone a structural change, synchronized with the BSE outbreak in Japan in mid-September 2001.

To obtain these publications, contact Beth Ambrosio, Center for Agricultural Policy and Trade Studies, NDSU at (701) 231-7334 or download from this website: <http://www.ag.ndsu.nodak.edu/capts/publication.htm>

Conference Announcement

Agricultural Competitiveness and World Trade Liberalization: Implications of the WTO and FTAA

The Center for Agricultural Policy and Trade Studies, North Dakota State University, and the Farm Foundation are jointly organizing a conference to be held at the Ramada Plaza Suites and Conference Center, in Fargo, North Dakota, on May 29-30, 2003.

Conference Themes: Major themes of the conference are an analysis of emerging agricultural trade issues under a liberalizing trade environment and an assessment of U.S. agricultural competitiveness in major markets. Specific subjects discussed in the conference include: (1) key issues and progress of the Free Trade Area of the Americas (FTAA) and World Trade Organization (WTO) negotiations and potential impacts on U.S. agricultural exports, (2) country perspectives on trade liberalization and agricultural policy, (3) emerging issues related to exchange rates, genetically modified organisms (GMO), and food security, and (4) alternative means to enhance agricultural exports.

Audience: Academics, government officials, industry leaders, researchers, producers, policy makers, and the public.

Registration: The conference fee is \$150 for those registering by April 25, 2003. Late registration fee is \$200.00. The registration fee includes conference materials and one dinner, two lunches, and refreshments during breaks.

For detailed information, including the conference program, visit our website!

<http://www.ag.ndsu.nodak.edu/capts>