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**U.S. - Canada Border Disputes in Grains:  
Dynamic Interface Between  
The Free Trade Agreement and  
Trade Remedy Laws**

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## Abstract

Agricultural trade between the United States and Canada has been contentious since the inception of the CUSTA agreement in 1989. Even though Canadian exports of wheat and barley are not found to have violated U.S. trade remedy laws, friction seems likely to continue as long as the surge in Canadian exports remains unabated.

Gradual harmonization of trade policies, farm subsidy programs, and marketing institutions may reduce trade disputes between the two countries in the future. To diffuse the threat of future trade disputes, a Canada - U.S. joint research team should be formed to deal with the matter through better understanding for causes of the disputes.

**Key Words:** bilateral trade, free trade agreement, trade disputes, trade remedy laws, farm income, farm price, harmonization

# **U.S. - Canada Border Disputes in Grains: Dynamic Interface Between The Free Trade Agreement and Trade Remedy Laws**

**Won W. Koo and Ihn H. Uhm\***

## **Introduction**

The United States and Canada are two of the world's largest exporters of grains, wheat and barley in particular, and compete with each other in major foreign markets.<sup>1</sup> They share a common interest in reducing government interference in world agricultural markets and encouraging freer world trade. This does not preclude them from disagreements over agricultural trade which arise from the differences in agricultural policies and marketing systems between the two countries.

The Canada - U.S. Free Trade Agreement (CUSTA)<sup>2</sup> and the North American Free Trade Agreement (NAFTA),<sup>3</sup> which includes Mexico, became effective in 1989 and 1994, respectively. NAFTA will create the largest single market in the world, a market of more than 350 million consumers and trade valued at over \$230 billion annually, when the agreement is fully implemented. CUSTA has been fully implemented for bilateral trade between the United States and Canada. Although the economies of the three NAFTA partners are highly interdependent, the degree of interdependence has been asymmetric. Mexico and Canada depend much more on the United States than the reverse. Prior to the implementation of NAFTA, 75 percent of Canadian exports and 88 percent of Mexican exports were destined for the United States.<sup>4</sup> However, only 22 percent of U.S. exports were shipped to Canada and 7 percent to Mexico. The imbalance arose mainly because of differences in economic conditions, the relative size of the economies, and the social structures among these countries. While the United States and Canada are similar

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<sup>1</sup> International Grain Council, *International Grain Statistics*, various issues.

<sup>2</sup> CUSTA created a free trade area comprised of Canada and the United States. Objectives of the Agreement are to eliminate barriers to trade in goods and services between the two countries; facilitate conditions of fair competition within the free-trade area; significantly liberalize conditions for investment within the free-trade area; establish effective procedures for the joint administration of this Agreement and the resolution of disputes; and lay the foundation for further bilateral and multilateral cooperation to expand and enhance the benefits of this Agreement. CUSTA established rules of origin for determining whether goods were "originating" and entitled to CUSTA benefits. Tariffs were to have been eliminated on all goods by January 1, 1998. For details, see External Affairs Canada (1987), *The Canada-U.S. Free Trade Agreement*, Ottawa, Ontario, Canada.

<sup>3</sup> NAFTA creates a free trade area that encompasses Canada, Mexico, and the United States. The basic format of NAFTA closely follows that of CUSTA and a number of provisions of NAFTA have been designed to rectify difficulties experienced under CUSTA. For details, see External Affairs and International Trade Canada (1993), *NAFTA What's it all about?*, Catalog No. E-74-56/1993E, Government of Canada, Ottawa, Ontario.; and Lipsey, R.G., D. Schwanen, and R.J. Wonnacott (1994), *The NAFTA, What's In, What's Out, What's Next*, Policy Study 21, C.D. Howe Institute, Toronto, Ontario.

<sup>4</sup> See U.S. Department of Commerce, *Highlight of U.S. Exports and Imports*, various issues.

in terms of economic conditions and social structure, Mexico differs significantly from its trading partners. The United States has the highest per capita gross domestic product (GDP) (\$28.6 thousand), followed by Canada (\$19.4 thousand) (see Table 1). Per capita GDP in Mexico is about one-ninth of that in the United States. Farm population is approximately 27 percent of the total population in Mexico, but is less than 2.5 percent in the United States and Canada. Per capita farmland in Mexico (0.6 acres) is smaller than in the United States (1.7 acres) and Canada (4.1 acres). On the other hand, the United States is about 9 times larger than Canada in terms of population and about 3 times larger than Mexico.

**Table 1. Characteristics of the Participating Countries, 1996**

	United States	Canada	Mexico
Population (million)	266.6	30.0	96.6
Per Capita GDP (1000 US\$)	\$28.6	\$19.4	\$3.4
Population in Agriculture (%)	2.5	1.6	27.0
Land (million acres)	465.0	122.0	57.3
Per Capita Land (acres)	1.7	4.1	0.6
Average Age (years)	32.0	32.8	22.0
Education (years in school)	11.0	12.0	7.5

Source: International Financial Statistics.

According to the Heckscher-Ohlin theorem,<sup>5</sup> the effects of NAFTA will be larger between the United States and Mexico mainly because of the dissimilarity in resource endowments between these two countries. The United States and Canada have similar resource endowments.

The CUSTA agreement has resulted in an increase in trade volume between the United States and Canada. For agricultural commodities and products, the increase has been greater for Canadian exports to the United States than U.S. exports to Canada. Average volumes of Canadian exports of wheat and barley to the United States were greater than the average U.S. exports to Canada for the 1990-97 period (see Table 2). In addition, Canadian exports to the United States have increased faster than U.S. exports to Canada. U.S. imports of Canadian western red spring (CWRS) wheat, for example, increased from 8.0 million bushels in 1990 to over 65.7 million bushels in 1993, and then decreased to 56.7 million bushels in 1997 (Figure 1). However, U.S. exports of hard red spring (HRS) wheat to Canada averaged only about 0.4 million bushels per year during the same period (Figure 2). Trade in durum wheat between the

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<sup>5</sup> This theorem says that a country has a comparative advantage in producing a commodity that intensely uses its relatively abundant factors. See Markusen et al., *International Trade Theory and Evidence*, McGraw Hill, Inc., 1995.

two countries was similar to that for HRS wheat. The import surge in 1993 led to the negotiation of a temporary agreement to limit Canadian wheat exports to the United States.<sup>6</sup>

**Table 2. Bilateral Trade of the Selected Agricultural Commodities Between the United States and Canada, 1990-1997**

	1990	1991	1992	1993	1994	1995	1996	1997	Average
-----million bushels-----									
<u>U.S. Imports from Canada</u>									
HRS	8.0	15.8	35.3	65.7	51.4	30.0	53.0	56.7	36.4
Durum	15.4	16.4	15.7	20.6	12.3	8.4	13.7	19.1	13.8
Barley	9.9	18.6	20.2	26.4	89.2	62.2	48.1	45.4	29.4
<u>U.S. Exports to Canada</u>									
HRS	0.0	0.7	0.8	1.0	0.6	0.0	0.2	0.2	0.4
Durum	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Barley	0.1	0.0	0.1	0.1	0.0	0.4	0.4	0.3	0.2

Source: U.S. Department of Agriculture.

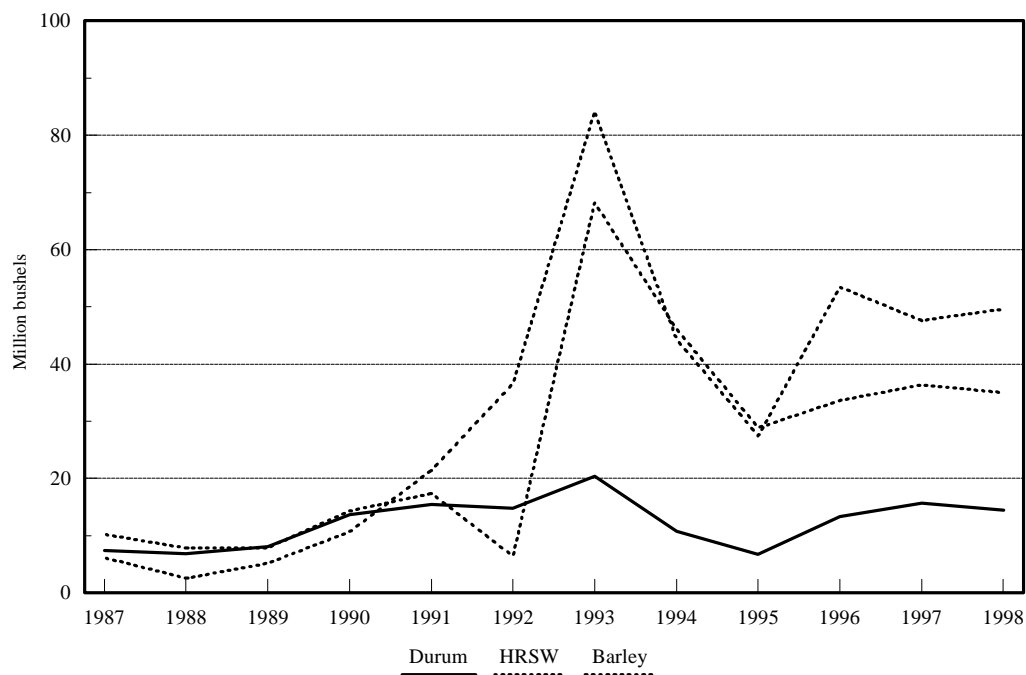
U.S. barley imports from Canada also grew rapidly from 9.9 million bushels in 1990 to nearly 89.2 million bushels in 1994 and then decreased to 45.4 million bushels in 1997 (Figure 1). The imports accounted for over 10 percent of U.S. domestic consumption for the 1990-1997 period. During the same period, U.S. barley exports to Canada were less than 0.2 million bushels.

Because of rapid increases in Canadian export supply of agricultural commodities into the United States in the post CUSTA era, grain producers in Minnesota, Montana, and North Dakota have sought protection through trade remedy laws. In addition to legal means, producers in these states at times engaged in the blockade of Canadian grain and livestock shipments to the United States. Furthermore, South Dakota Governor Bill Janklow announced new inspection requirements for all trucks carrying Canadian grain and livestock beginning at noon, September

<sup>6</sup> The agreement was effective for only one year from September 12, 1994 to September 11, 1995, U.S. Trade Representative Release 94-43, *U.S. Statement Regarding Trade Between the United States and Canada on Wheat*.



16, 1998.<sup>7</sup> Governors of North Dakota, Montana, and Idaho followed the South Dakota measures and announced a stepped-up effort to inspect Canadian trucks as they cross the border into these states.<sup>8</sup> On December 2, 1998, in the aftermath of a series of trade disputes, the United States and Canada announced the Record of Understanding in agricultural trade to ease tension between the two countries.<sup>9</sup>



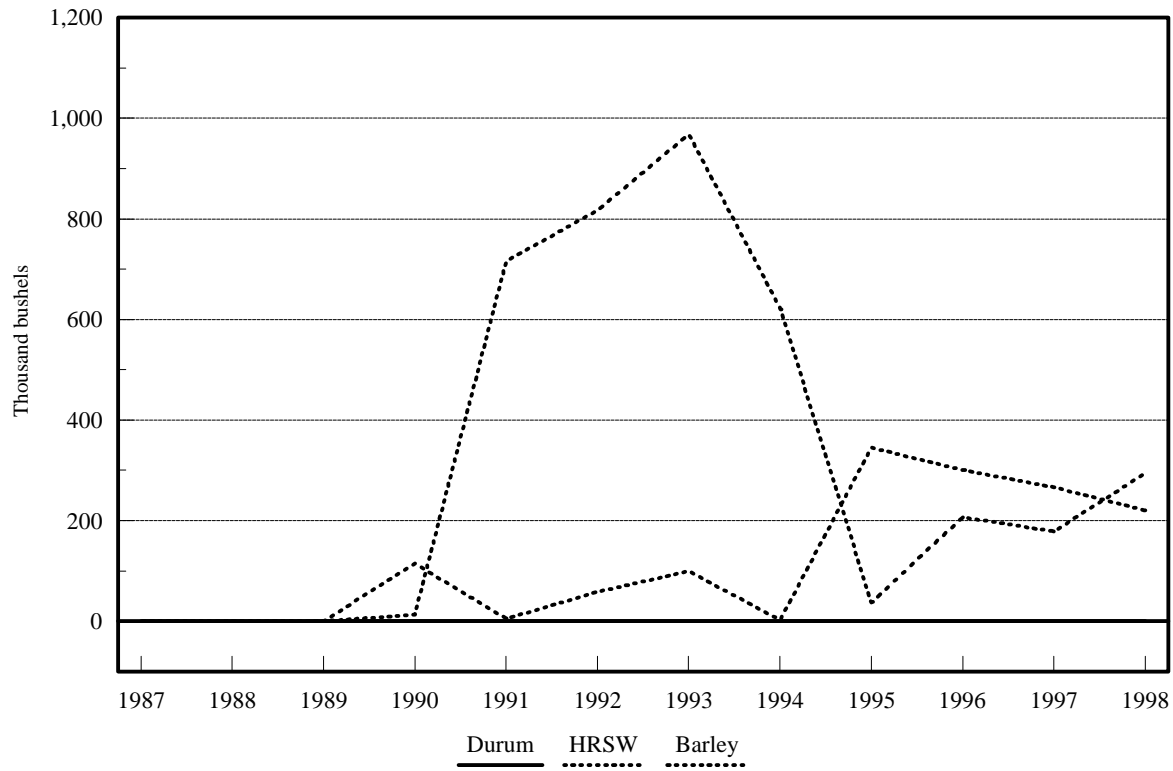
**Figure 1. Canadian Exports of Durum, HRSW, and Barley to the United States**

<sup>7</sup> See the press release by the Office of the Governor, State of South Dakota, on September 15, 1998. Trucks carrying Canadian grain must supply proof that the grain is free from Karnal Bunt and wild oats. In addition, the grain should be free of the following six chemicals: dimetridazole, ipronidazol, nitroimidazoles, fluoroquinolones, glycopeptides, and sulfamethazine.

<sup>8</sup> See the press release by the Office of the Governor, State of North Dakota, on September 15, 1998; the press release by the Office of the Governor, State of Montana, on September 18, 1998; and the press release by the Office of the Governor, State of Idaho, on September 18, 1998. In addition, North Dakota proposed a law that would restrict the entry of Canadian products under the guise of technical requirements. The proposed new law would prohibit a wide range of Canadian agricultural products from entering North Dakota without the necessary scientific justification required by NAFTA and by domestic U.S. regulations. The Canadian government vigorously protested to defend the rights of Canadian exporters of agricultural goods. In this regard, Canada requested NAFTA consultations on the North Dakota trade barrier. For details, see the news release from Foreign Affairs and International Trade, No. 72, April 1, 1999.

<sup>9</sup> See the Record of Understanding between the Governments of Canada and the United States of America Regarding Areas of Agricultural Trade, Agriculture and Agri-Food Canada ([www.agr.ca/cb/trade](http://www.agr.ca/cb/trade)).

The primary purpose of this report is to examine the market conditions conducive to trade flows and the causes of trade disputes between the United States and Canada with respect to wheat and barley. To this end, the interwoven dynamics of free trade agreements, trade remedy laws in the United States, profit seeking interest groups, and the geopolitical economy will be analyzed. The paper will then discuss new developments for conflict resolution between the two trade partners. The last section provides concluding remarks.



**Figure 2. U.S. Exports of Durum, HRSW, and Barley to Canada**

**Contributing Factors to the Flow of Grains Between the United States and Canada**

Bilateral trade flows of wheat and barley between the United States and Canada under CUSTA are influenced by differences in resource endowments, marketing systems, availability of marketable surpluses, differences in crop quality, and farm policies between the two countries.

The size of the domestic markets for durum wheat and barley in Canada are much smaller than those in the United States. However, the quantities of durum wheat and barley produced in

Canada are larger than those produced in the United States.<sup>10</sup> As a result, Canada has substantial marketable surpluses of grain and, therefore, is more dependent upon export markets than the United States. On average, Canada exports about 75 percent of its wheat and 15 percent of its barley. Under CUSTA, the U.S. market became attractive to Canadian producers mainly because it is the closest and largest market.

In Canada, wheat and barley for exports are marketed by the Canadian Wheat Board (CWB). The CWB pays producers an initial price when the grain is delivered and returns any revenue surplus to producers as final payments.<sup>11</sup> In the United States, grain is marketed by individual grain trading firms. U.S. wheat and barley in the world market often compete with CWB grain. The CWB controls grain exports to both offshore and U.S. markets through export licenses. Some Canadian producers of wheat and barley in proximity to the United States view that the lack of direct access to the U.S. market arising from the actions of the CWB works to their detriment. Nevertheless, it is perceived in the United States that the CWB may distort trade flows.<sup>12</sup> They argue that the CWB has monopsony power in purchasing agricultural commodities from producers and at the same time is a single desk sales agency that has the exclusive right to make marketing decisions regarding prices and quantities. Thus, it is argued that the CWB is able to exercise price discrimination to maximize profits in world markets<sup>13</sup> and has an unfair advantage over private firms in the United States. However, the WTO, under Article XVII:1, allows a state trading enterprise to charge different prices between markets provided it is done for commercial reasons based on market conditions in export markets. It is also argued that the CWB does not provide sufficient information regarding its general operation. This is especially true regarding purchase and sales price information for agricultural commodities.<sup>14</sup> Schmitz and Koo (1996) argue that these practices by the CWB represent an unfair advantage over their U.S. competitors.<sup>15</sup>

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<sup>10</sup> International Grain Council, *World Grain Statistics*, 1996/97.

<sup>11</sup> Simonot, *The Economics of State Trading in Wheat* (1997), M.S. Thesis, University of Saskatchewan, 1997.

<sup>12</sup> See Ingco and Ng (1998), *Distortionary Effects of State Trading in Agriculture: Issues for the Next Round of Multilateral Trade Negotiation*, Development Research Group, The World Bank, Washington, DC.

<sup>13</sup> The CWB is a trading agency that is the sole legal exporter for wheat and barley grown in Western Canada. The Canadians argue the CWB is a “cooperative,” while others argue that it is a state agency. Its obligatory relationship with wheat grain farmers sets it apart from the usual conception of a cooperative. The CWB operates both as a monopoly and as a monopsony within the boundaries of Canada. Internationally, the CWB and the large U.S. grain-marketing firms may be considered as oligopolies within the North American wheat market.

<sup>14</sup> Agricultural economists in Canada argue that American grain exporting firms (e.g., Cargill) do not reveal export prices either. Therefore, it is not transparent the extent to which these firms engage in price discrimination. They further argue that whether or not Canadian producers have benefitted from price discrimination by the CWB is a moot point.

<sup>15</sup> Schmitz, Troy C., and Won W. Koo. (1996), *An Econometric Analysis of International Feed and Malting Barley Markets: An Econometric Spatial Oligopolistic Approach*, Agricultural Economics Report No. 357, Department of Agricultural Economics, North Dakota State University, Fargo.

The Canadian rail subsidy was an indirect subsidy provided by the Canadian government under the *Western Grain Transportation Act* (WGTA) to farmers for shipments of the designated grains from producing regions to export ports.<sup>16</sup> U.S. grain producers argued that under the Act, Canadian grains were more competitive in offshore markets. Canada, however, eliminated the controversial rail subsidy under the WGTA in 1995. Contrary to the expectations of U.S. grain producers, the elimination of the rail subsidy induced larger inflows of grains into the United States. The elimination of the WGTA has ultimately made the U.S. market more attractive for Canadian producers, because transportation costs from the Canadian prairies to the United States are lower than those from the Canadian prairies to most offshore markets.<sup>17</sup>

The exchange rate between the two currencies also plays an important role in bilateral trade of agricultural commodities and products. Since the U.S. economy has been stronger than the Canadian economy since 1985, the U.S. dollar has appreciated against the Canadian dollar. The U.S. dollar appreciation makes U.S. agricultural commodities more expensive in the Canadian market and conversely makes Canadian agricultural commodities less expensive in the U.S. market.<sup>18</sup>

Another important contributing factor affecting trade flows of grain between the two countries is differences in the quality of grain delivered to downstream industries such as millers

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<sup>16</sup> The *Western Grain Transportation Act* was enacted in 1983 in an attempt to modernize the century-old statutory rail freight rate which is known as the Crow's Nest Pass Agreement or the Crow Rate. Under the WGTA, the Canadian government provided rail companies with annual payments of up to C\$658 million with an adjustment for inflation to cover the transportation costs of eligible grain shipments to selected shipping terminals at western and eastern ports. Under this Act, shipping costs from Canadian prairies to offshore markets were lower than the shipping costs from U.S. producing regions to the same offshore markets. It is argued by U.S. grain producers that Canada enjoyed a competitive advantage over the United States in shipping grains to these markets. Under CUSTA, however, Canada's WGTA is eliminated for grain shipped through West Coast ports for U.S. consumption. For comparison of the rail freight rate structures between the United States and Canada prior to the enactment of the WGTA, see Koo, W. Won, and Ihn H. Uhm (1984), "United States and Canadian Rail Freight-Rate Structures: A Comparative Analysis," *Canadian Journal of Agricultural Economics* Vol. 32, No. 2, pp. 301-326.

<sup>17</sup> Johnson, D., and W. Wilson (1995), "Canadian Rail Subsidies and Continental Barley Flows: A Spatial Analysis," *Logistics and Transportation Review* Vol. 31:31-46; and Mao, W., Won Koo, and M. Krause (1996), *World Feed Barley Trade Under Alternative Trade Policy Scenarios*, Agricultural Economics Report No. 350, Department of Agricultural Economics, North Dakota State University, Fargo.

<sup>18</sup> For example, assume that Canadian wheat priced at C\$5.00/bushel is sold at \$3.57/bushel in the U.S. market at an exchange rate of C\$1.40/\$1.00. If the U.S. dollar appreciates from C\$1.40 to C\$1.50, the price of Canadian wheat decreases from \$3.57 to \$3.33 in the U.S. market. On the other hand, U.S. wheat priced at \$3.57 will be C\$4.90 in Canada at an exchange rate of C\$1.40/\$1.00 and will be C\$5.25 at an exchange rate of C\$1.50/\$1.00. Since the most transactions occur in terms of U.S. dollars in the world market, an appreciation of the U.S. dollars against Canadian dollars does make grains worth more at the Canadian farm gate and encourages overall exports. There are numerous empirical studies that confirm this hypothesis. See Coleman, J.R., and Karl D. Meilke (1988), "The Influence of Exchange Rates on Red Meat Trade Between Canada and the United States," *Canadian Journal of Agricultural Economics* Vol. 36, pp. 401-424.

and pasta manufacturers.<sup>19</sup> This is especially true for durum wheat and barley trade between the two countries. U.S. millers demand high quality durum wheat. Whenever the United States cannot produce enough high quality durum wheat to meet domestic demand, due to weather conditions and diseases during the growing season, U.S. millers have imported high quality durum wheat from Canada. Similarly, Canadian malting barley is desired by U.S. maltsters because of its attributes. Canadian feed barley, on the other hand, competes with other carbohydrate materials such as corn and sorghum as a livestock feed-stuff.

The U.S. Export Enhancement Program (EEP) has also played an important role in maintaining U.S. competitiveness of wheat and barley exports in off-shore markets.<sup>20</sup> The U.S. Congress created the EEP under the 1985 Farm Bill. The purpose of the program is to provide U.S. agricultural exporters with bonuses that allow them to lower their export prices in selected markets characterized by unfair competition, particularly to the European Union (EU).<sup>21</sup> The U.S. International Trade Commission (USITC) report indicated that an important consideration in the market determination of durum wheat prices is the international interplay of the EU's export subsidy programs as well as the U.S. EEP. The use of these export subsidies has lowered world durum prices. The decline in world durum prices relative to U.S. prices could make the U.S. market price appear relatively more attractive to Canadian exporters. However, the U.S. government has not used EEP since 1995 except for barley.<sup>22</sup>

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<sup>19</sup> The quality variables of concern to the millers in the United States have grown from basic visual grade specifications to include the following: vitreousness and protein (the quality of gluten); crop years used in blending; moisture content; mold and mildew; dockage/cleanliness; falling number, which is a measure of sprouting damage; sedimentation; mixograph tests; and color. It should be noted that while the color of a bread wheat does not carry to the end product, the color of a durum wheat does, thereby determining the color of the pasta end product. According to U.S. milling industry sources, mills are not willing to purchase on the basis of U.S. grade alone. The U.S. system of post-harvest handling and distribution permits blending between different grades; the Canadian one does not. Millers purchasing grain from Canada will receive the average of a grade, with cleanliness and uniformity assured. The difference between the two sources has led to a perception that U.S. grain is of lower quality than Canadian grain when comparing similar grades. See USITC (1990), *Durum Wheat: Conditions of Competition Between the U.S. and Canadian Industries*, Report on Investigation No. 332-285 under Section 332(g) of the *Tariff Act* of 1930 as amended, Washington, DC, pp. 3-1 through 3-5.

<sup>20</sup> See Alston J.M., R. Gray, and D. Sumner (1994), "The Wheat War of 1994," *Canadian Journal of Agricultural Economics* Vol.42:231-251; Mao, Weining, Won Koo, and M. Krause (1996), *World Feed Barley Trade Under Alternative Trade Policy Scenarios*, Agricultural Economics Report No. 350, Department of Agricultural Economics, North Dakota State University; Fargo; and Schmitz, T.C., and Won Koo (1996), *An Econometric Analysis of International Feed and Malting Barley Markets: An Econometric Spatial Oligopolistic Approach*, Agricultural Economics Report No. 357, Department of Agricultural Economics, North Dakota State University, Fargo.

<sup>21</sup> EEP assistance is available for a wide variety of agricultural products, including wheat. Since the program's inception, the vast majority of EEP sales have been of wheat, followed by free grains (barley), wheat flour, and vegetable oil.

<sup>22</sup> EEP was used for barley once in 1998 in response to a U.S. import of EU barley.

## Trade Barriers of Grains in the Pre- and Post-CUSTA Era

Prior to CUSTA/NAFTA, there were barriers (e.g., tariffs and non-tariff barriers) in trading small grains (including durum wheat) between the United States and Canada. Tariffs imposed by the United States prior to 1989 were \$7.70/ton for wheat, \$2.30/ton for malting barley, and \$3.40/ton for other barley; and those imposed by Canada were C\$4.40/ton for wheat and C\$2.30/ton for all barley. Under CUSTA, tariffs on wheat and barley were placed on a schedule of elimination in 10 equal segments and, therefore, were eliminated completely by January 1, 1998. In Canada, imports of wheat from the United States had been subject to import licenses, administered by the Canadian Wheat Board,<sup>23</sup> but these were removed immediately after CUSTA. In 1991, however, Canada instituted a legal regime that American wheat destined for processing in Canada must be accompanied by an end-use certificate (EUC), permitted under CUSTA Article 705(1). Canadian processors importing American wheat must request the EUC from the Canadian Grain Commission.<sup>24</sup> Subsequently, the U.S. government also instituted an EUC requirement for all Canadian wheat entering the United States effective February 27, 1995.<sup>25</sup>

### Estimated Price and Income Effects of Increased Export Supply From Canada on U.S. Grain Producers

In the post-CUSTA era, as stated earlier, rapidly increasing exports of wheat (including durum) from Canada to the U.S. market became a major trade irritant, particularly in the Northern Plain states. Producers in the Northern Plains states generally believe that increased export supply of grains from Canada has resulted in the loss of potential income through the impact on local prices (price and income effects). Economic theory, based on the law of supply and demand,<sup>26</sup> predicts that increased supply of a commodity lowers the price of the commodity if demand for the commodity remains the same.

Industry econometric models for durum wheat and barley in the United States were developed by Koo to evaluate this allegation based on the relationship between the price and the

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<sup>23</sup> This requirement allowed the CWB to operate the “two-price wheat policy.” The CWB has an explicit policy to sell to domestic millers at a price equal to or less than the landed price of equivalent U.S. grain. Interest groups in the United States argue that as a result of CWB policy on wheat, imports into Canada from the United States have been limited to very small volumes and restricted at times when there is a shortage of specific qualities of Canadian wheat.

<sup>24</sup> *Canada Grain Act* as Form 1 of Schedule XV.

<sup>25</sup> The use of EUCs on commodities applies only when Canada applies them to American products (Section 321(f) of the *NAFTA Implementation Act*).

<sup>26</sup> The “law of supply and demand” is the predictions of competitive price theory. In general, economists prefer not to speak of “laws,” but rather a “hypothesis.” In a competitive market there will be a tendency for the actual prices (or market prices) to be relatively high when the quantity brought to market is less than the effectual demand (the quantity that would be bought at the natural price) and relatively low when the quantity brought to market exceeds the effectual demand. This working of competition was known as the “law of supply and demand.” [Source: Eatwell, J. Murray M., and P. Newman (editors), *The New Palgrave, A Dictionary of Economics*, The MacMillan Press Ltd., London, 1987, p. 537 (under the heading of Competition: classical conceptions).]

quantity of supply.<sup>27</sup> In the model, the total supply is divided into domestic supply and imports, mainly from Canada. The price and supply relationship was estimated by using time series data. The statistical relationship between price and supply in the durum wheat model is statistically significant, implying that the increased domestic supply and imports of durum wheat in the United States, *ceteris paribus*, lowers the price of durum wheat.

The estimated price flexibility coefficient for the import of durum wheat is 0.24 at mean levels of price and quantity, indicating that the price of durum wheat decreases 2.4 percent when the import volume increases by 10 percent.<sup>28</sup> The estimated price flexibility coefficient for domestic supply is 0.76, which is larger than that for foreign imports. The difference in the magnitude of price flexibility coefficients between imports and domestic supply is mainly because domestic and imported wheat are differentiated in the U.S. domestic market. The domestic price of durum wheat is more sensitive to domestic supply than to imports from Canada because durum wheat imported from Canada is of higher quality.

The estimated price flexibility coefficient for domestic supply of barley is 0.41 and that for imports from Canada is 0.07, indicating that domestic price of barley decreases by 4.1 percent and 0.7 percent, respectively, when both domestic supply and imports increase by 10 percent. The price flexibility coefficients indicate that domestic prices are more sensitive to domestic supply than imports from Canada.

When applying the estimated price flexibility coefficients to the U.S. durum wheat industry, the U.S. domestic price of durum wheat was estimated to be reduced by about 11 percent annually for the 1994-1996 period because of increased Canadian durum wheat exports to the United States. Similarly, U.S. barley prices were estimated to be reduced by about 4.3 percent annually because of increases in Canadian barley exports to the United States. The depressed prices of durum wheat and barley led to reductions in farm income, estimated to aggregate \$148 million/year for both U.S. durum wheat and barley producers; \$47 million/year for durum wheat producers and \$101 million for barley producers (see Table 3).

Since there are some uncertainties as to the accuracy of the estimated income loss by grain producers resulting from the increased Canadian exports into the United States, upper and lower bounds of the estimates of farm income loss are considered to present the ranges of loss. In the

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<sup>27</sup> Koo, W. (1998), *Bilateral Trade of Durum Wheat and Barley under CUSTA and Implications for Farm Price and Income*, Agricultural Economics Report No. 385, Department of Agricultural Economics, North Dakota State University, Fargo.

<sup>28</sup> Price flexibility coefficient is defined as a percentage change in price resulting from a one percent change in quantity of supply. It should be noted that the estimated price effects of export supply of wheat and barley from Canada are based on the estimated price flexibility coefficients, which are derived from a partial equilibrium model. Market equilibrium conditions in the North American market are explicitly considered in the specification of the econometric models, while the equilibrium conditions in other parts of the world are assumed to be constant.

upper bound scenario,<sup>29</sup> the average farm income loss is estimated to be \$192 million/year for both durum wheat and barley producers; \$64 million/year for durum wheat producers and \$128 million/year for barley producers. This resulted from a 15.3 percent reduction in durum wheat price and a 7.6 percent reduction in barley price in the United States. In the lower bound scenario,<sup>30</sup> on the other hand, average income loss is estimated to be \$104 million/year for both durum wheat and barley producers in the United States, \$31 million/year for durum wheat producers, and \$73 million/year for barley producers. The estimated price reduction under this scenario is 6.5 percent for durum wheat and 1.3 percent for barley.<sup>31</sup>

**Table 3. Decreases in Net Farm Income for Durum Wheat and Barley Producers in the United States, 1994-1996**

Year	Base	High Price Effect	Low Price Effect
	----- million \$ -----		
<u>Wheat</u>			
1994	55.1	72.6	38.5
1995	42.4	57.6	28.2
1996	44.1	62.8	26.5
Average	47.2	64.3	31.1
<u>Barley</u>			
1994	100.2	127.6	72.7
1995	95.5	121.3	69.7
1996	106.3	135.3	77.3
Average	100.7	128.1	73.3

Source: Agricultural Economics Report No. 385, Department of Agricultural Economics, North Dakota State University, Fargo.

<sup>29</sup> Using the price flexibility coefficient calculated from the estimated parameters for the import variable of the model, plus one standard error corresponding with the variable. In this scenario, price is about 50 percent more sensitive to changes in quantity supplies than the base case. See Footnote #22 for more details.

<sup>30</sup> Using the price flexibility coefficient calculated from the estimated parameters for the import variable of the model, minus one standard error corresponding with the variable. In this scenario, price is about 50 percent less sensitive to changes in quantity supplies than the base case. See Footnote #22 for more details.

<sup>31</sup> It should be noted that the estimated magnitude of the impact of Canadian exports on prices and incomes in the United States may differ depending on the scope and specification of the model (i.e., partial versus general equilibrium analysis, time period considered, coverage of the world market in the specification of the models, etc.).



Given the quantities of durum wheat and barley imports from Canada, the estimated price depressing effect of durum wheat ranges from 6.5 percent to 15.3 percent, while that of barley ranges from 1.3 percent to 7.6 percent. Consequently, the resulting income loss by durum wheat producers is estimated to range from about \$31 million/year to \$64 million/year. For producers of barley, the estimated income loss ranges from \$73 million/year to \$128 million/year. These estimated income losses, however, are not necessarily a loss to the U.S. economy. The intermediate and/or end users of durum wheat (e.g., millers and pasta manufacturers) and barley (e.g., maltsters and feed manufacturers), for example, are beneficiaries of the lower prices of durum wheat and barley arising from the surge in Canadian exports.<sup>32</sup>

### **United States Counters Measures by Using the U.S. Trade Statutes**

The recent history of grain trade disputes between the two countries reveals that U.S. producers have attempted, using numerous facets of U.S. trade statutes and other means such as border blockades, to stop or to at least reduce the flow of Canadian wheat and/or barley into the U.S. market to minimize their income loss (see Table 4). A number of U.S. trade statutes are available to protect domestic producers of like goods from unfair trade practices by foreign exporters. These include anti-dumping duties (Subtitle B of Title VII of the *Tariff Act* of 1930, as amended) and countervailing duties (Subtitle A of Title VII of the *Tariff Act* of 1930, as amended) (see Table 4).

The anti-dumping (AD) and countervailing duty (CVD) laws are two important trade remedy laws. Although these two laws are aimed at different forms of unfair trade, they have many procedural and substantive similarities. Dumping generally refers to a form of international price discrimination, whereby goods are sold in one export market at prices lower than the prices at which comparable goods are sold in the home market of the exporter or in its other export markets.<sup>33</sup> The purpose of the countervailing duty law, on the other hand, is to offset any unfair

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<sup>32</sup> The estimated loss of income by grain producers is to some extent a transfer of income to downstream industries in the United States through lower prices of raw materials (durum wheat and barley) for manufacturing flour, pasta, and livestock feeds. These downstream industries might have enjoyed competitive advantage in meeting competition from foreign pasta and feed imports into the U.S. market. Empirical evidence in these areas are not readily available to assess the positive effects of the lower prices of durum wheat and barley on the downstream industries in the United States. Hence, the positive effects which might have been contributed by these Canadian exports are beyond the scope of this report.

<sup>33</sup> Section 731 of the *Tariff Act* of 1930, as amended, provides that an anti-dumping duty shall be imposed, in addition to any other duty, if two conditions are met. First, the Department of Commerce must determine that “a class or kind of foreign merchandise is being, or is likely to be, sold in the United States at less than its fair value.” Second, the USITC must determine that “an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of that merchandise.”

competitive advantage that foreign manufacturers (or exporters) might enjoy over U.S. domestic producers as a result of foreign countervailable subsidies.<sup>34</sup>

In addition to AD and CVD provisions, import relief (safeguard) under Section 201 of the *Trade Act* of 1974, as amended by Section 1401 of the *Omnibus Trade and Competitiveness Act* of 1988, and Sections 301-304 of the *Uruguay Round Agreements Act*, sets forth the authority and procedures for the President to take action, including import relief to facilitate efforts by a domestic industry, which has been seriously injured by imports to make a positive adjustment to import competition<sup>35</sup> (see Table 4).

Section 22 of the *Agricultural Adjustment Act* of 1933, as amended, also provides relief through the President, if he agrees whenever the Secretary of Agriculture has reason to believe that any article or articles are being or are practically certain to be imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with any program or operation undertaken under this title or the *Soil Conservation and Domestic Allotment Act*, as amended. The Secretary of Agriculture shall so advise the President and, if the President agrees that there is reason for such relief, the President shall cause an immediate investigation to be made by the USITC, which shall give precedence to investigations under this section to determine such facts.<sup>36</sup>

Section 332 of the *Tariff Act* of 1930, as amended, also provides that the USITC investigate and report to the President and Congress on the administrative, fiscal, and industrial effects of the customs laws of the United States. The Commission shall have power to investigate the tariff relations between the United States and foreign countries, commercial treaties, preferential provisions, economic alliances, the effect of export bounties and preferential transportation rates, the volume of imports compared with domestic production and consumption, and conditions, causes, and effects relating to competition of foreign industries with those of the United States, including dumping and the cost of production.<sup>37</sup>

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<sup>34</sup> Subtitle A of Title VII of the *Tariff Act* of 1930, as added by the *Trade Agreements Act* of 1979, and amended by the *Trade and Tariff Act* of 1984, the *Omnibus Trade and Competitiveness Act* of 1988, and the *Uruguay Round Agreements Act* of 1994, provides a countervailing duty shall be imposed, in addition to any other duty, equal to the amount of net countervailable subsidy, if two conditions are met. First, the Department of Commerce (DOC) must determine that a countervailable subsidy is being provided, directly or indirectly, “with respect to the manufacture, production, or export of a class or kind of merchandise imported, or sold into the United States” and must determine the amount of the net countervailable subsidy. Second, the USITC must determine that “an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of that merchandise or by reason of sales of that merchandise for importation.”

<sup>35</sup> Committee on Ways and Means, U.S. House of Representatives, *Overview and Compilation of U.S. Trade Statutes*, Washington, DC, June 25, 1997, pp. 98-99.

<sup>36</sup> Committee on Ways and Means, U.S. House of Representatives, pp. 615-17.

<sup>37</sup> Committee on Ways and Means, U.S. House of Representatives, pp. 1,066-68.

**Table 4. U.S. Trade Statutes and Required Injury Test for Relief**

Trade Statutes in the United States:	Primary Purpose of the Statute:	Investigating Agencies:	Required Legal Test for Relief (e.g., material injury test)
<b>Agricultural Adjustment Act</b> ( <i>Section 22</i> of the AAA of 1933, as amended) <sup>(1)</sup>	to ensure that imports of agricultural products do not undermine domestic farm programs.	USITC for determination of material interference; USDA is a designated interested party.	Required “material interference test” vis-a-vis a farm commodity program administered by USDA.
<b>Anti-dumping</b> ( <i>Title VII</i> of the <i>Tariff Act</i> of 1930, as amended)	to protect domestic industries from injurious effects of dumping.	USITA (DOC) for determination of dumping; USITC for determination of injury.	Required “material injury test” caused by the subject imports.
<b>Conditions of Competition</b> ( <i>Tariff Act</i> of 1930, as amended, <i>Section 332</i> )	to investigate the conditions affecting competition and the U.S. industries’ competitiveness.	USITC; USITA (DOC).	N/A
<b>Countervailing Duty</b> ( <i>Subtitle A of Title VII</i> of the <i>Tariff Act</i> of 1930, as amended)	to protect domestic industries from subsidization by foreign government.	USITA (DOC) for determination of subsidization; USITC for determination of injury.	Required “material injury test” caused by the subject imports.
<b>Enforcement Action</b> ( <i>Section 301</i> of the <i>Trade Act</i> of 1974, as amended)	to enforce U.S. rights gained under international trade agreement.	USTR	N/A
<b>Import Relief (Safeguard)</b> ( <i>Section 201</i> of the <i>Trade Act</i> of 1974, as amended)	to deal with the temporary adverse effects of fair import competition.	USITC for determination of injury.	Required “serious injury test” caused by the subject imports. <sup>(2)</sup>

Notes:

- (1) 7 U.S.C. 624. Section 22 authority is available now only for imports from countries to which the United States does not apply the WTO Agreement.
- (2) Serious injury test requires somewhat higher legal standard than that of the material injury threshold.

Source: Committee on Ways and Means, U.S. House of Representatives, *Overview and Compilation of U.S. Trade Statutes*, U.S. Government Printing Office, Washington, DC, June 1997.

Finally, Section 301 of the *Trade Act* of 1974, as amended, provides the authority and procedures to enforce U.S. rights under international trade agreements and to respond to certain unfair foreign practices. If the U.S. Trade Representative (USTR) determines that a foreign act, policy, or practice violates or is inconsistent with a trade agreement, or is unjustifiable and burdens or restricts U.S. commerce, then action by the USTR to enforce the trade agreement

rights or to obtain the elimination of the act, policy, or practice is mandatory, subject to the specific direction, if any, of the President.<sup>38</sup>

Given these trade statutes available to the U.S. grain producers, the first legal challenge with respect to the bilateral asymmetric wheat trade flows in the post-CUSTA era begun in 1989 when North Dakota durum wheat producers complained that the Canadian freight subsidies provided under the *Western Grain Transportation Act* (WGTA) constituted an export subsidy, in violation of CUSTA Article 701.2. The USTR examined the allegation and concluded that “subsidies under the WGTA would not appear to be classified as export subsidies” which implied that Canada had not violated Article 701.2. That is because the freight subsidy under the WGTA applied to all shipments to Thunder Bay, whether destined for export or domestic use. Subsequently, the controversial WGTA was eliminated by the Canadian government in 1995.

The second legal challenge was initiated on October 26, 1989 by the U.S. Congress which instructed the USITC, under the provisions of Section 332 of the *Tariff Act* of 1930, as amended, to examine the “condition of competition” of durum wheat between U.S. and Canadian industries.<sup>39</sup> In accordance with Section 332(g) of the *Tariff Act* of 1930, as amended,<sup>40</sup> the USITC instituted Investigation No. 332-285, *Durum Wheat: Conditions of Competition Between the U.S. and Canadian Industries*. The U.S. Senate Committee on Finance requested the Commission to report the results of its investigation by June 22, 1990. The Commission, pursuant to the request by the U.S. Congress, reported on that date the results of its investigation to the House Committee on Ways and Means and the Senate Committee on Finance.<sup>41</sup> The USITC rejected the U.S. wheat industry’s allegation that the CWB had been “dumping” durum wheat into the U.S. market (i.e., selling below acquisition price).

Subsequently, based on complaints filed by grain producers in North Dakota and Montana, the U.S. Congress requested the Government Accounting Office (GAO)<sup>42</sup> conduct a study analyzing the responsiveness of durum prices to market forces. The results of the GAO study, presented during a Congressional field hearing in Bismarck, North Dakota, in December 1989, indicated that prices of durum wheat for 16 years (1973-88) had generally followed the movement of market forces such as stocks-to-use ratios (i.e., price level bears a strong inverse relationship to stocks on hand at the end of the year).<sup>43</sup> A bi-national panel hearing, held in 1992

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<sup>38</sup> Committee on Ways and Means, U.S. House of Representatives, pp. 80-87.

<sup>39</sup> On November 15, 1989, the USITC received a letter from the Committee on Finance, U.S. Senate, containing an identical request.

<sup>40</sup> 19 U.S.C. 1332(g).

<sup>41</sup> U.S. International Trade Commission (1990), *Durum Wheat: Conditions of Competition Between the U.S. and Canadian Industries*, Report on Investigation No. 332-285 under Section 332(g) of the Tariff Act of 1930, as amended, Publication 2274, Washington, DC.

<sup>42</sup> The U.S. GAO undertook an audit of CWB pricing practices. However, it is generally viewed in the United States that the GAO was not able to complete the study mainly because the CWB refused to provide the information required for this GAO’s investigation.

<sup>43</sup> Canadian exporters viewed these investigations as indirect probes of alleged dumping.

pursuant to Article 701(3) of CUSTA, unanimously ruled that there was no compelling evidence that the CWB was selling wheat below acquisition cost into the U.S. market.

Having failed to reduce Canadian exports of wheat (including durum) into the U.S. market by use of the mentioned U.S. trade statutes and CUSTA Articles, the U.S. wheat industry pressured the Clinton Administration in 1993 to take further legal action through the Executive Branch under the provisions of Section 22, of the *Agricultural Adjustment Act (AAA)*, as amended.<sup>44</sup> As directed by the President, the Commission instituted Investigation No. 22-54, on November 17, 1993, under Section 22(a) of the AAA.<sup>45</sup>

The USITC determined, by the majority rule, that wheat, wheat flour, and semolina were being imported into the United States under such conditions and in such quantities as to “materially interfere” with the price support programs conducted by the USDA for wheat.<sup>46</sup> The Commission’s report to the President<sup>47</sup> indicates that the Commission had seriously considered five economic analyses, *inter alia*, containing empirical evidence submitted by the participants of

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<sup>44</sup> The USITC received a letter from President Clinton stating that he had been advised by the Secretary of Agriculture, “that there is reason to believe that wheat, wheat flour, and semolina are being imported into the United States under such conditions and in such quantities as to render or tend to render ineffective, or materially interfere with, the price support payment and production adjustment program for wheat conducted by the U.S. Department of Agriculture (USDA).”

<sup>45</sup> 7 U.S.C. 624(a).

<sup>46</sup> Material interference is defined by the Commission in the past cases as “more than slight interference but less than major interference.” When determining whether material interference is occurring or would occur the Commission has examined factors such as: (i) the available supply of imports, including import levels, changes in import volumes, world production, and world stocks of the imported products; (ii) pricing data, including the relationship between import prices, U.S. prices, and the support price; (iii) information relating to domestic supply and demand; (iv) data relating to the government programs, including Commodity Credit Corporation (CCC) outlays, CCC surpluses, and changes in the cost to the government of running a program. Three Commissioners (Rohr, Newquist, and Bragg) determined that the subject goods are imported into the United States under such conditions and in such quantities as to materially interfere with the price support programs conducted by the USDA for wheat. However, three other Commissioners (including Chairman Watson, Vice Chairman Nuzum, and Commissioner Crawford) determined that (i) wheat, wheat flour, and semolina are not being imported under such conditions and in such quantities as to render, or tend to render, ineffective the USDA wheat program; and that (ii) the evidence of the recent impact of increased wheat imports could support the President finding either material interference or not material interference. When the vote by the six commissioners is tied, it is considered an affirmative determination.

<sup>47</sup> See U.S. International Trade Commission (1994), *Wheat, Wheat Flour, and Semolina*, Investigation No. 22-54, Publication 2794, Washington, DC.

the investigation as well as the USITC staff in its deliberations.<sup>48</sup> The USITC report to the President, in fact, led to a negotiated settlement for the 1994/95 crop year, which is known as the Wheat Peace Agreement.<sup>49</sup> In market response to the agreement, the U.S. domestic price of durum wheat rose from \$4.67/bushel in 1994 to \$5.75/bushel in 1995. However, the price fell to \$3.95/bushel in 1997.

### **Conflict Resolution Through Border Blockades or Negotiated Settlements?**

Despite long and exhaustive legal actions, based on the U.S. trade remedy laws, against Canadian export supply of wheat and barley, the volume of Canadian exports into the United States has not significantly abated. Grain producers in Minnesota, Montana, and North Dakota have waged an increasingly hostile war of words and actions against Canadian grain. Producers in these states have engaged in blockades of Canadian grains and livestock shipments to the United States. For example, Governor Bill Janklow of South Dakota required inspection of all trucks carrying Canadian grain and livestock entering his state beginning September 16, 1998. The Governors of North Dakota, Montana, and Idaho followed suit immediately.<sup>50</sup> These unilateral actions against Canadian agricultural products were vigorously protested by the Canadian government.

On December 2, 1998, in the aftermath of a series of legal actions, hostile words, and border blockades, the United States and Canada announced a Record of Understanding on bilateral agricultural trade that includes the U.S.-Canada Action Plan to improve and expand

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<sup>48</sup> During the investigation, the Commission has received four economic submissions from parties to the proceeding. They are SAG (on behalf of the CWB by Sumner, Alston, and Gray); LECG (the Law and Economic Consulting Group); USDA (U.S. Department of Agriculture); ADE (Abel, Draft, and Earley on behalf of the Millers National Federation, the National Pasta Association, and the National Grain Trade Council, all users of grain). The most detailed is the one submitted on behalf of the CWB by SAG. The SAG submission presents a partial equilibrium simulation model of the world market consisting of the United States, Canada, and the "rest of the world." The SAG submission suggested that the Canadian wheat export supply had very small effects on U.S. wheat prices and on U.S. wheat program costs. The Commission's report indicated that the SAG analysis contains an extensive discussion of the parameters underlying a model of the effects of imports on a market. The common ground comparison of the results of economic models presented by SAG, USDA, and the Commission's empirical model indicates that a one percent rise in domestic supply (including imports) generates 0.424 percent decline in domestic price. The USDA price response is a much larger, -1.47 percent, while the SAG response is far less, -0.15 percent. The Commission's report stated further that "on the basis of this discussion, SAG parameters are chosen such that the effects of Canadian wheat on the U.S. market are small." See USITC, Investigation No. 22-54, pp. II-80 through II-94.

<sup>49</sup> The Agreement was effective only one crop year from September 12, 1994 to September 11, 1995. See Alston, J.M., *et al.*, (1994), "The Wheat War of 1994," *Canadian Journal of Agricultural Economics*, Vol. 42, pp. 231-251.

<sup>50</sup> See press releases by the Office of the Governors, State of South Dakota, North Dakota, Montana, and Idaho on September 15-18, 1998.

agricultural trade relations between the two countries.<sup>51</sup> The primary purpose of the Record of Understanding was to ease the tension between the United States and Canada resulting from the trade in grain and livestock.

Under the purview of the Record of Understanding between the two governments, the highlights of grain trade between the two countries are as follows:

- The action plan is designed to improve U.S. farmers' access to primary elevators in Western Canada, while preserving the integrity of the Canadian grain quality control system. In this regard, four grain companies have suggested that a total of 27 elevators within 60 miles of the border receive U.S. grains. The program complements existing arrangements that facilitate the direct movement of U.S. wheat and barley to Canadian feedlots, feed mills, and flour mills, effective January 1, 1999.
- Growers in the United States are able to ship wheat under a "Master Phytosanitary Certificate" without the requirement to have each individual shipment tested. Wheat must originate from an approved grower in states eligible under the program and at least one sample per grower, per crop, must be officially tested and found free of Karnal bunt spores. The Master Phytosanitary Certificate must also satisfy the requirements for dwarf bunt and flag smut basis freedom by area or by official testing. The program was implemented for both North Dakota and Montana on January 1, 1999.
- The Canadian Food Inspection Agency has developed an alternative certification program that permits shipments of wheat, barely, rye, and/or triticale, excluding seed, to transit through Canada based on a certificate of origin in lieu of a phytosanitary certificate with mandatory sampling and testing. This allows U.S. grain to be shipped on the Canadian rail system to final destinations in the United States beginning January 1, 1999 for producers from Montana, Minnesota, and North Dakota.
- Other grain-related measures include phased-in changes in phytosanitary regulations for grain shipments to Canada and efforts to harmonize pesticide regulations. In addition, Canada and the United States agreed to meet quarterly, or more frequently on request, to consult on global grain production and marketing in order to strengthen cooperation and trust on issues of mutual interest.

Although this U.S.- Canada action plan has provided opportunities for U.S. growers to ship their grains to Canada and to use the Canadian rail system to ship grain to destinations in the United States, the plan did not fully satisfy grain producers in the United States because the major issue is not U.S. access to the Canadian market. Grain producers' major concerns are the rapidly increasing volumes of Canadian exports of wheat and barley into the United States and their impacts on local grain prices and farm incomes, particularly in the Northern Plains region. The

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<sup>51</sup> The Record of Understanding is the result of negotiations between the United States and Canada on a number of trade issues in the fall of 1998. Many of these issues fall into the category of technical barriers to trade for grains, livestock and meats, and horticultural products. See Annexes 6-9, Record of Understanding Between the Governments of Canada and the United States of America.

root of the problem remains unaddressed as far as grain producers in the United States are concerned.

More recently, the North Dakota Farmers Union proposed a marketing pool scheme for durum and hard red spring wheat outside the purview of the Record of Understanding. The main purpose of the marketing pool would be to enhance net farm income for wheat producers in spring wheat producing regions. Koo et al. (1999) conducted a feasibility study for the wheat pooling scheme and concluded favorably that a durum wheat pool would provide additional revenue to durum wheat producers by raising the U.S. domestic prices jointly with the CWB in the North American market. However, a hard red spring wheat pool does not appear economically feasible mainly because of close substitution with other wheat types.<sup>52</sup> Lauck (1999), on the other hand, argued against the wheat pooling proposal advanced by the North Dakota Farmers Union in view of the fact that organizing a wheat pool may be against the liberalization trend under the WTO and may likely create potential conflicts between the wheat pooling proposal and current international agreements. Lauck's study concluded that these concerns would make the proposal's success less likely.<sup>53</sup>

### **Concluding Remarks**

The Canada - U.S. Free Trade Agreement (CUSTA) created one of the largest single markets in the world. The overall effects of the agreement have generally been very positive on both sides of the border as the two-way trade today is nearly 2.5 times the level before CUSTA.<sup>54</sup> However, there have been several trade disputes concerning agricultural commodities during the post-CUSTA era. Even though Canadian exports of wheat and barley are not found to have violated U.S. trade remedy laws, friction seems likely to continue as long as the surge in Canadian exports remains unabated.

The causes of asymmetric trade flows are reviewed in this report. The report also identified that there are interwoven multiple factors influencing bilateral trade, including (1) the persistent differences in grain marketing and delivery systems, farm subsidy programs, and trade policies between these two countries; (2) the presence of exportable volumes of commodities in Canada; and (3) the relative value of Canadian dollars. The trade dispute issue before the two trading partners is extremely complex to resolve and undoubtedly requires the wisdom of Solomon. Some economists argue that gradual harmonization of trade policies, farm subsidy programs, and marketing institutions may reduce trade disputes between the two countries in the future. Some are skeptical of such a view based on the fact that an elimination of Canada's WGTA, to some extent, harmonized grain freight rate structures between the two countries, but

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<sup>52</sup> See Koo. et al. (1999), *Economic Analysis of the Proposed North Dakota Wheat Pool*, Agricultural Economics Report No. 410, Department of Agricultural Economics, North Dakota State University, Fargo.

<sup>53</sup> See Lauck (1999) "Against the Grain: The North Dakota Wheat Pooling Plan and the Liberalization Trend in the World Agricultural Market," *Minnesota Journal of Global Trade*, Vol. 8, Issue 2, 1999.

<sup>54</sup> Canada West Foundation, *Ten Years After: Cross-Border Export/Import Trends Since the Canada-U.S. Free Trade Agreement*, Calgary, Alberta, Canada, June 1999, p. 1.



did not lead to a significant reduction in Canadian exports to the United States. On the contrary, an elimination of the century-long freight rate subsidy in Canada encouraged Canadian grain producers to divert grain shipments from the world market to the United States.

The geo-political economy (i.e., the dynamic interface of NAFTA, trade statutes, in particular trade remedy laws, and regional interest groups' welfare) in the United States will likely lead to further disagreements along the U.S. - Canada border.

Finally, to diffuse the threat of future trade disputes stemming from either a pursuit of self-interest among parties or a misunderstanding of the nature of the comparative advantage, a Canada – U.S. joint research team should be formed to deal with the matter. The research team should investigate the causes of the volume of cross-border trade in the context of world market perspectives in an impartial manner and find workable, realistic, and long-term solutions to the mutual benefit of the two countries.

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