Regionalization of Trade in Livestock and Livestock Products

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I. Introduction

The World Trade Organization (WTO Agreement) and North American Free Trade Agreements (NAFTA) have contributed to increased importation of live feeder cattle from the United States to Canada under the Restricted Feeder Cattle Import Program (RFCIP). Specifically, the sanitary and phytosanitary provisions of these agreements have led to increased importation of feeder cattle on a regional basis into Western Canada. This article will examine how the WTO and NAFTA have produced changes in the regulation of cattle imports into Canada and how these changes have led to an increase in trade.

First, the process of regulatory change will be examined, from the initiatives taken by interest groups through the process of risk assessment and regulatory amendment. Also, the role of international and domestic standards organizations will be described. The concept of regionalization will be examined, from the perspective of international trade agreements and international standards agreements and from the domestic perspective of regulation of livestock health matters on a regional basis. The conclusion to be reached from this examination is that these trade agreements have reduced Canadian trade barriers to cattle imports from certain regions of the United States through the application of international standards and risk assessments to Canadian law.

The second aspect of the paper is an examination of how national boundaries will be refined to ecosystem boundaries as the basis for trade regulation in the future. This involves a consideration of some of the legal trends that appear from the RFCIP. A methodology is described for accomplishing this type of trade liberalization in the future. Some conclusions are offered about the application of the regionalization concept to other trade issues.

II. Background

The background to this issue of regional trade is that Canada is free from a number of economically significant animal diseases that are found in some parts of the United States. In cattle this includes brucellosis, tuberculosis, and anaplasmosis. The legal background is that there is a general ban on live cattle imports into Canada without individual animal disease testing and inspection. The purpose of the testing and inspection of imported animals is to prevent the spread of diseases that do not exist in Canada.

In the 1990s, two things happened that provided an impetus for change. First, Cargill and Iowa Beef Producers, two U.S. companies, built beef packing plants in the Canadian province of Alberta. These new packing plants increased the demand for slaughter cattle and this in turn increased the demand for feeder calves to place in the Alberta feedlots. The Alberta feedlots could not obtain sufficient feeder calves in the Western Canadian market to satisfy the demand. The second new event was the adoption of the North American Free Trade Agreement (NAFTA) and the WTO Sanitary and Phytosanitary
TABLE I

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>October 1, 1997–March 31, 1998</td>
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</tr>
<tr>
<td>October 1, 1998–March 31, 1999</td>
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<td>October 1, 2000–March 31, 2001</td>
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<tr>
<td>October 1, 2000–December 9, 2000</td>
<td>138,779</td>
</tr>
</tbody>
</table>

(Source: Compiled by the author)

Agreement (SPS Agreement). Both of these agreements contain provisions that have a potential impact on domestic law relating to the importation of livestock.

There are over twelve million beef cattle in Canada. This is about one-eighth the size of the U.S. beef cattle population of over ninety-nine million head. About 67 percent of Canada's beef cattle are raised in the Western provinces of Alberta, Saskatchewan, and Manitoba and 15 percent are in the Eastern province of Ontario.

About 3.5 million cattle were slaughtered in Canada in 1999. Canadian exports to the United States in the same year reached 105,000 cattle as feeder animals and 800,000 as slaughter animals, about 3 percent of the thirty-five million animals slaughtered in the United States. Canadian live cattle exports have been falling since 1996 as beef production has increased in Canada.

Canada imports feeder and slaughter animals only from the United States. In 1999, over 79,000 feeders and 40,000 slaughter animals entered Canada. In the 1999–2000 season, over 180,000 feeder cattle were imported under the RFCIP.

The growth of feeder cattle imports since the Restricted Feeder Cattle Import Program started is illustrated by Table 1.

The current import season is well under way, with imported cattle numbers increasing again. Table 2 shows how the numbers break down for this period of time.

The growth of the feeder cattle industry in Alberta created the potential for more U.S. feeder cattle to move from northern states such as Montana into the Prairie Provinces instead of into more southern states. The growth of this trade is influenced by the extent to which the cost and inconvenience of animal health protocols on cattle moving north directions can be reduced. The number of feeder cattle imported into Canada will depend on the relative prices in the U.S. compared with Canada. Current prices favour feeding cattle in Canada.

TABLE 2

<table>
<thead>
<tr>
<th>Premises approved</th>
<th>Permits issued</th>
<th>From AK</th>
<th>From HI</th>
<th>From ID</th>
<th>From MT</th>
<th>From ND</th>
<th>From NY</th>
<th>From WA</th>
<th>Total</th>
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</thead>
<tbody>
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<td>BC</td>
<td>9</td>
<td>11</td>
<td>2,026</td>
<td></td>
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<td>5,503</td>
<td></td>
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<td>7,529</td>
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<tr>
<td>AB</td>
<td>132</td>
<td>220</td>
<td>1,278</td>
<td>11,233</td>
<td>94,058</td>
<td>636</td>
<td>5,581</td>
<td>112,786</td>
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<tr>
<td>SK</td>
<td>33</td>
<td>41</td>
<td></td>
<td></td>
<td></td>
<td>17,302</td>
<td>461</td>
<td></td>
<td>17,763</td>
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<tr>
<td>MB</td>
<td>5</td>
<td>7</td>
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<td></td>
<td></td>
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<td>ON</td>
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<td>3</td>
<td></td>
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<td></td>
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<td>111,360</td>
<td>1,191</td>
<td>607</td>
<td>138,779</td>
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</table>

Totals from information received to the end of December 9, 2000

RF stats summary

totals to end of:
Oct. 7, 2000—9,641
Oct. 14, 2000—31,933
Oct. 21, 2000—63,350
Oct. 28, 2000—79,650
Nov. 4, 2000—99,819
Nov. 11, 2000—110,438
Nov. 18, 2000—123,192
Nov. 25, 2000—129,706
Dec. 2, 2000—132,498
Dec. 9, 2000—138,779

(Source: Canadian Food Inspection Agency)

III. WTO Sanitary and Phytosanitary Agreement

The legal analysis of the changes in Canadian law begins with the WTO SPS Agreement. The SPS Agreement begins with the definition of a sanitary or phytosanitary measure to include any measure that a country adopts, maintains, or applies to protect animal health in its territory from risks arising from the introduction, establishment, or spread of a disease. The SPS Agreement then imposes a basic obligation on any member to ensure that any sanitary or phytosanitary measure is based on scientific principles and is not maintained without sufficient scientific evidence. Further, the member also has an obligation to ensure that the measure is applied only to the extent necessary to protect human, animal or plant life or health.

The SPS Agreement further directs that the scientific principles to be applied are to be given effect through assessment of risk. Specifically, members are to ensure that their

2. Id. art. 1.
3. Id. art. 2.
4. Id. art. 5.
sanitary measures are based on an assessment of the risks to human, animal or plant life or health. The risk assessments are required to consider whatever factors are appropriate in the circumstances. Specifically, the risk assessments are to take into account risk assessment techniques developed by the relevant international organizations. The relevant international organization with respect to livestock trade is the Office International Des Epizooties (OIE). The applicable details of the OIE will be discussed later.

The SPS Agreement also directs member countries to base their sanitary measures on international standards, guidelines or recommendations, where they exist. It puts meat to this measure by further providing that a sanitary measure that conforms to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health and is therefore presumed to be consistent with the relevant provisions of the SPS Agreement.

The concept of regionalization of sanitary measures is mandated by Article 6 of the SPS Agreement. This Article provides that members shall ensure that their sanitary measures are adapted to the sanitary characteristics of the area—whether all of a country, part of a country, or all or parts of several countries. The relevant area is the area from which an imported product originated and to which the product is destined.

Article 6 also mandates that members shall recognize the concept of disease areas and areas of low disease prevalence. Determination of such areas shall be based on factors such as geography, ecosystems, epidemiological surveillance, and the effectiveness of sanitary controls.

IV. NAFTA

NAFTA contains very similar provisions to the WTO SPS Agreement. These provisions are contained in Chapter 7 of NAFTA. For the purposes of this paper, the NAFTA provisions can be considered to be equivalent to the WTO SPS provisions. There are only minor differences in wording. Further references in the paper will be only to the SPS Agreement.

V. WTO Dispute Settlement Body Decisions

There are now several WTO Dispute Settlement Body Decisions dealing with the SPS Agreement. In all three cases, the contested domestic SPS measure was found to

6. See SPS Agreement, supra note 1, art. 3.2.
7. Id. art. 6.
be illegal because there was no risk assessment completed to support the measure or the risk assessment was improperly done. The importance of a proper risk assessment in these cases is noteworthy. These cases demonstrate that border restrictions on the trade of livestock and livestock products can now be successfully challenged in the WTO by trading countries under the SPS Agreement. These cases describe some of the criteria for a proper risk assessment. They include the following:

1. It must identify the diseases whose entry, establishment or spread a Member wants to prevent within its territory, as well as the potential biological and economic consequences associated with the entry or spread of these diseases;
2. It must evaluate the likelihood of the entry, establishment or spread of these diseases, as well as the potential biological and economic consequences of failing to prevent introduction; and
3. It must evaluate the likelihood of the entry or spread of these diseases according to the SPS measures that might be applied.

It is noteworthy that the first two criteria include an evaluation of economic consequences. The economic work to be done on these risk assessments is a new challenge to the profession. The methodologies used will have to withstand public and legal scrutiny.

VI. Legal Literature

The legal literature on SPS issues is developing, both under NAFTA and the WTO. Much of the writing deals with the Beef Hormones case and its implications. However, some of the literature deals with the more general issues of the difficulty of removing trade barriers. An awareness of the commentary on the WTO decisions will help strengthen any risk assessments done on SPS measures in the future.

VII. The International Organization of Epizooties

The Office International des Epizooties (OIE) is the recognized international organization for setting standards for animal health in the SPS Agreement. Its objectives

13. See SPS Agreement, supra note 1, at Appendix A.
include safeguarding health in world trade. The OIE recognizes that:

"the unimpeded flow of international trade in animals and animal products requires:
- veterinary regulations designed to prevent the spread of transmissible diseases to animals and to human beings;
- the harmonization of requirements for such trade, in order to avoid unjustified trade barriers." 14

The OIE provides the International Animal Health Code. 15 Until 2000, this Animal Health Code contained provisions regarding regionalization. In the 1999 Code, a zone was defined as part of a country established for disease control purposes. A region was defined as a number of countries or parts of contiguous countries that were established for disease control purposes. The 2000 Code has no definition of a zone or region. It does refer to an infected zone as:

a clearly defined territory within a country in which a disease included in this Code has been diagnosed. This area must be clearly defined and decreed by the Veterinary Authority taking into consideration the environment, the different ecological and geographical factors as well as all the epidemiological factors and types of animal husbandry being practiced. 16

The 2000 Code also defines zoning as:

a procedure implemented by a country under the provisions of this Chapter with a view to defining geographical areas of different animal health status within its territory of for the purpose of international trade, and in accordance with the recommendations stipulated in the relevant Chapters on animal diseases in the Code. 17

It also sets out the requirements for defining different types of zones in very general terms:

size, location and delineation will depend on the epidemiology of the disease and surveillance and control measures applicable. Separate conditions will be developed for each disease for which zoning is considered appropriate. The extent of zones and their limits should be established by the Veterinary Administration on the basis of natural, artificial or legal boundaries and made public through official channels. 18

Despite the title of Zoning and Regionalization, the 2000 Code contains no reference to regionalization. It appears to have disappeared into the concept of zoning.

The concept of regionalization implies that adjacent countries or parts of countries that have the same animal health status and similar disease controls can be treated as a zone for trade purposes. The Code provides that a zone must be clearly delineated by

14. Id.
16. Id. ch. 1.1.1.
17. Id. ch. 1.3.4.1.
18. Id. ch. 1.3.4.2.
natural, artificial, or legal boundaries. The Animal Health Code defines a number of terms that are relevant to regionalization:

**Risk analysis:** The process composed of hazard identification, risk assessment, risk management and risk communication.

**Hazard identification:** The process of identifying the pathogenic agents that could potentially be introduced in the commodity considered for importation.

**Risk assessment:** The evaluation of the likelihood and the biological and economic consequences of entry, establishment, or spread of a pathogenic agent within the territory of an importing country.

**Risk management:** The process of identifying, selecting, and implementing measures that can be applied to reduce the level of risk.

**Risk communication:** Risk communication is the interactive exchange of information on risk among risk assessors, risk managers, and other interested parties.

The Code then goes on to describe detailed considerations for each of the steps in risk analysis. It provides specific guidelines for risk assessment. These guidelines will have to be followed by any country wishing to establish or maintain sanitary measures affecting livestock trade.

**VIII. Domestic Legislation**

**A. The Northwest Cattle Project**

In Canada, the regulation of the importation of livestock is dealt with in the Health of Animals Act. This legislation allows the regulation of the importation of animals into Canada to prevent disease. The regulations are contained in the Health of Animals Regulations Until 1997, these regulations required individual animal testing on importation into Canada. This generally proved to be economically prohibitive for the large-scale importation of animals destined for slaughter. It was used only in limited circumstances, usually involving breeding animals.

The regulatory amendment process began in 1997 with amendments to the Health of Animal's Regulations. The regulations introduced the concept of "restricted feeder." Restricted feeder means cattle imported into Canada from the United States for the purpose of feeding and whose movements are restricted under the provisions of the regulations. The amendments allowed cattle from the two western states of Montana and Washington to move into Alberta and Saskatchewan during October to March. The animals could only move into approved feedlots where they were placed in segregated pens and given antibiotic treatment on arrival. The regulatory program was known as the Northwest Cattle Project.

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19. Id. ch. 1.3.4.
20. Id. ch. 1.3.1.3.
21. Id. ch. 1.3.2.
23. C.R.C. 296, SOR 91-525.
The rationale for the Northwest Cattle Project is as follows. Canada is recognized as being free from anaplasmosis, brucellosis and bluetongue. The Northwest Cattle Project regulations allowed the importation of feeder cattle from American herds from those states that met control criteria for bovine tuberculosis and from those that had achieved freedom from brucellosis under the U.S. national eradication program. The risk assessment indicated that the risk of importing disease in treated cattle was equivalent to or less than importing disease in tested cattle.

In the first year of the project fewer than 1,000 head of cattle were imported under the restricted feeder regulations. The regulations and associated import conditions focused on restricting the movement and end use of the imported cattle. The Canadian industry was unhappy that the identification requirements and movement restrictions for imported feeders were applied to all livestock in permitted feedlots. Practical application of the requirements to import U.S. cattle under the Northwest Cattle Project proved to be more onerous than anticipated by the Canadian feedlot industry. Cattlemen on both sides of the border were voicing concerns that the program as implemented was not workable. Amendments were proposed that would refocus restrictions from all livestock on a premises to only imported cattle and from the end use to the completion of the post entry treatment of imported cattle. Producers would be more likely to import cattle under the proposed regulatory amendments since compliance would not impinge on normal feedlot operating procedures.

B. The Restricted Feeder Cattle Import Program

1. The Regulatory Amendments

Amendments to the Health of Animals Regulations in August 1998 expanded the program and changed the name of the Restricted Feeder Cattle Import Program (RFCIP). It made the program more attractive to Canadian importers and to U.S. exporters and extended it to Hawaii, North Dakota, and Idaho. The changes were made to:

(a) remove the requirement that individual identification of restricted feeders and all other livestock on a permitted premises be recorded at slaughter;
(b) allow imported feeder cattle to be moved for purposes other than slaughter after the treatment period is complete;
(c) allow other livestock on the permitted premises to be moved for purposes other than slaughter; and
(d) reduce the records which the owner of the premises is required to provide.

The amendments allow an approved feedlot operator to move non-restricted livestock out of their feedlot for reasons other than slaughter. Re-export of cattle for finishing or sending animals to sale are possible. The imported feeders must be carefully tracked and their movement controlled within the feedlot only until they have completed the required treatment. Individual identification of all livestock on the feedlot and tracking of this individual identification to slaughter are no longer required.

Continued expansion of the feeder cattle and meat packing industries in western Canada led to an increase in the importation of feeder cattle from the northern border states into Canada. The role of the Northwest U.S. states in satisfying expanding packing plant demand relates to its surplus cow-calf productions and proximity to western Canada's feedlots. U.S. cattle producers benefited from cost reductions associated with elimination of export tests and certification requirements and from increased demand.

As a result of the RFCIP, Canadian importers benefited from an increase in supply of feeder cattle. Fees for inspection of imported animals and audit of post entry treatment by CFIA personnel were equivalent to currently levied fees. A new fee, implemented to offset the cost of risk assessment used to develop import permit conditions resulted in an additional fee applied to the permit holder. These fees are nominal and should not have a significant impact on importation decisions. Likewise, antibiotic treatment costs are small. The result should be an overall reduction in the cost of feeders to Canadian feedlots. Currency exchange rates will remain a more important cost factor.

2. The Political Background to the Restricted Feeder Cattle Import Program

The Canadian and U.S. cattle market is highly integrated with relatively free movement of live cattle. One of the main elements of this trade is export of live slaughter cattle and beef from western Canada into the northwest United States. In the past, northwestern states complained that the volume of Canadian fattened cattle being sent to slaughter in the United States was a factor in depressing U.S. cattle prices. In 1997, the U.S. Department of Agriculture (USDA) passed a Final Rule on regionalization that formally recognized Canada as free from brucellosis. The northwestern states felt that their zoosanitary status was similar to Canada's and that they should be able to export live animals to Canada without testing for brucellosis.

With the USDA regionalization rule in place there was no U.S. testing requirements for brucellosis for Canadian cattle exported to the United States. However, individual states had requirements in their state legislation for Canadian cattle to be tested for brucellosis. American beef producer groups alleged that the Northwest Cattle Project requirements still constituted an illegal barrier to trade. As a result, some states threatened to maintain their state brucellosis import requirements for Canadian cattle unless Canada relaxed its import rules.

It was therefore against this background of the WTO and NAFTA rules, the U.S. regionalization rule, and the pressure from Canadian cattle importers and exporters that Canada introduced the Restricted Feeder Cattle Import Program. The result was to allow freer movement of live cattle on a regional basis.

It is interesting to note that a similar process has occurred in Canadian regulations dealing with the import of slaughter swine from the United States. In December 1998, regulatory amendments were made to relax the quarantine restrictions on slaughter hogs from U.S. states that were considered free of certain diseases. Further amendments are now proposed that would further relax import conditions and move the restrictions from the actual regulations to the conditions of import permits, again based on the
disease-free statistics of the state of origin. These proposed amendments parallel the regionalization amendments described below.

C. THE REGIONALIZATION AMENDMENTS

Now, new regulatory amendments are at the proposal stage to extend the RFCIP beyond cattle to all livestock products. In addition, the regulatory changes will allow the designation by ministerial order of areas from which livestock may be imported and areas into which the livestock may be imported.

1. Proposed Regulation

The proposed amendments to the Health of Animals Regulations deal with the importation of animals and also animal germ plasm. Several new definitions are provided. First, "area" means a country, part of a country, or a number of continuous countries or contiguous parts of countries identified by the Minister as an area. "Area of origin" means the area in which an animal was born or into which the animal was previously imported for unrestricted use. "Regulated animal" includes any mammal.

The proposed regulations allow the Minister to designate an area as equivalent in health status, or as a low-risk area or high-risk area. The designation of an area is for each specific species of regulated animals. An equivalent area is an area where the risk of disease transmission is negligible. The low-risk area is an area where the transmission of reportable diseases is considered low risk. The high-risk area is an area from which the importation would pose more than a low risk of disease introduction.

Importations from equivalent-risk areas will be allowed for a specific species if two requirements are fulfilled:

1. a certificate of origin from an official veterinarian stating that the regulated animal originates from that area, and
2. a certificate from an official veterinarian from that area states:
   a) the identification of the animal and
   b) that the veterinarian has inspected the animal within 72 hours before it was exported to Canada and found it to be clinically healthy and fit to travel without undue suffering.

Importation for low-risk areas can be allowed if the Minister sets conditions for the designation for the low-risk area and the conditions are complied with. The importation again requires a certificate of origin from the official veterinarian that provides:

1. the identification of the animal;
2. that a veterinarian has inspected the animal within 72 hours before it was exported to Canada and found it to be clinically healthy; and
3. that the importation complies with the conditions set for the designation of that particular area.

For higher risk areas, a specific import permit will be required in addition to the other criteria regarding identification and inspection of the animal.

Importation from undesignated areas will still require a permit from the Minister and compliance with detailed conditions of import such as testing and treatment or quarantine of the animal.

The proposed new regulation moves the concept of trade regionalization to a new level in Canada. It has progressed from a species and area specific rule to a very general rule encompassing any species of animal and any area of Canada or the world. The process still involves risk assessment, but the legal instrument has changed from a regulation to a Ministerial Order. Theoretically this should make the process quicker and less expensive. It remains to be seen how the Ministerial Order process will work in practice.

IX. Risk Assessment and Management

The key to liberalization of SPS trade barriers is now risk assessment. A proper risk assessment that demonstrates low risk to an importer can be used to challenge SPS trade restrictions. The conduct of a risk assessment and the use of risk assessment results will be crucial to reducing trade barriers under the new regionalization regime.

Definition of Risk Assessment

"The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs."27

The requirements of risk assessments are set out in the International Animal Health Code. It prescribes that risk assessments should examine:

1. Release assessment;
2. Exposure assessment; and

Within the consequence assessment, the risk assessment must consider the following factors:

1 Direct consequences
   —animal infection, disease, and production losses; and
   —public health consequences.

2 Indirect consequences
   —surveillance and control costs;
   —compensation costs;
   —potential trade losses; and
   —adverse consequences to the environment.

27. See SPS Agreement, supra note 1, at Appendix A.
Once all of the assessments are made, they are integrated into a risk estimation. The principles of risk management can then be applied to the estimated risk. The Code describes risk management as:

[t]he process of deciding upon and implementing measures to achieve the Member Country's appropriate level of protection, whilst at the same time ensuring that negative effects on trade are minimized. The objective is to manage risk appropriately to ensure that a balance is achieved between a country's desire to minimize the likelihood or frequency of disease incursions and their consequences and its desire to import commodities and fulfil its obligations under international trade agreements.28

In Canada, the risk assessment is conducted by the Canadian Food Inspection Agency (CFIA).29 The risk assessment with respect to the Restricted Feeder Cattle Import Program was conducted in 1998 and determined that live cattle imports from certain zones in the United States during October to March had a low risk of spreading disease to the Canadian livestock herd under specific conditions. These conditions were subsequently incorporated in the regulations.

The proposed changes to Canadian regulations to allow further regionalization of trade and livestock were made in December 1999. These regulations prescribed that risk areas will be designated by the Minister for specific livestock species. This will allow the movement of untested animals into Canada in the equivalent risk areas. There is a regulatory impact analysis statement with the draft regulations which details the types of considerations included in the risk assessments and the potential options available for regulatory amendment.30 Risk assessments will now be required as part of the process of obtaining Ministerial Orders to recognize trade areas or regions.

It is interesting to note that the expansion of the Northwest Cattle Project into the Restricted Feeder Cattle Import Program and the general topic of animal health regionalization were important items in a 1998 Canada-U.S. Action Plan regarding areas of agricultural trade. This understanding reached between the governments of Canada and the United States ensured that further effort would be made to adopt regionalization regulations for trade in livestock.31 The proposed regionalization regulations are another step in implementing this action plan.

28. OIE, International Animal Health Code, art. 1.3.2.5.
29. CFIA, Policy, Planning and Coordination Directorate, Science Division, at http://www.cfia-acia.agr.ca/english/ppc (conducts risk assessments). Details of their Risk Analysis Framework can be obtained electronically from the above site.
X. Transparency

Each member of the WTO is required to have a contact or enquiry point where other members can find information regarding animal health status regulations and import regulations. In Canada, this enquiry point is the Standards Council of Canada.\(^\text{32}\) The enquiry point in Canada is also the enquiry point under NAFTA. It is the repository of proposed SPS regulatory changes in Canada and in other countries. The Standards Council satisfies the requirements of transparency of animal health regulations.\(^\text{33}\)

XI. Harmonization

The regulatory changes described in this study are part of a larger movement to harmonization of procedures on animal health regulation in Canada and the United States. The move to harmonization comes from the harmonization provisions of the SPS and NAFTA agreements. They call for the harmonization of domestic provisions with international standards. Although the regulatory changes do not specifically adopt international standards such as OIE rules on brucellosis, they open the door to the application of these standards through the use of risk assessments.

The United States made a similar move towards regionalization with the adoption of regionalization rules.\(^\text{34}\) The details and significance of these rules are beyond the scope of this paper, but the trend in both countries is similar. The new trade rules in both countries are steps towards rule harmonization that should result in economic benefits to both producers and consumers.

XII. Economic Implications

Regionalization initiatives have implications for economists, including data collection and modeling in the areas of transaction costs and welfare effects. Regionalization will also have impacts in the more general areas of trade bargaining and trade integration and interdependence. These implications can be briefly considered here.

A. Transaction Costs

The Restricted Feeder Cattle Import Program has demonstrated that regionalization can reduce the transaction costs of trade. The elimination of individual animal testing has reduced the cost of export to the producers and may increase the price of feeder cattle due to increased demand. However, the cost to the importer has increased slightly due to medication and permit costs. This may be offset due to reduced price of feeder cattle due to increased supply. So, there may be a net benefit in reduction of the transaction

\(^\text{33}\) You can subscribe to an e-mail reporting service from the Standards Council of Canada that notifies you of any changes proposed by WTO Member countries in their SPS regulations. The information is available to anyone who may be interested in regulatory changes.
costs of trade. These costs and benefits have been examined and can be studied further as regionalization proceeds.\textsuperscript{35}
Another element of transaction costs is the cost of achieving the regionalization goal of reducing trade barriers. The various aspects of these costs have been described elsewhere.\textsuperscript{36} Obviously, these costs were considered reasonable and recoverable by the Canadian beef industry in their work to achieve a regional market in feeder animals. Perhaps these transaction costs can now be justified as part of the effort to enshrine regionalization in the Health of Animals Regulations for other livestock and other areas.

B. Welfare Effects

The regulatory amendments that create trade regions will have a small but positive impact on the beef industry. Transaction costs regarding health matters will be reduced. The cost of shipping animals across the national border will be reduced. This will allow feeders and packers to procure animals within a least cost distance of feedlots and packing plants.\textsuperscript{37} This should result in increased competition for U.S. feeder cattle and larger producer surpluses in the production of beef cattle in the United States.

The results of regionalization raise some questions regarding the usual welfare analysis of government measures. Standard economic analyses of trade implications can be done on the basis of provincial/state or national statistics. Economists can collect data and model the national trade effects of a program like RFCIP.\textsuperscript{38} This is important, as politicians still want information on the net trade balance effects of programs. But this is not the only possible type of analysis.

The available analyses show that there has been a small positive price impact for U.S. feeder cattle producers.\textsuperscript{39} The direction of the price trend is clearly positive, as would be expected from increased competition for calves. But intuitively, the increased competition would drive down the price paid to Canadian producers. What is the cost to Canadian producers? And what is the net result to producers in the ecosystem as prices are equalized between the two countries? This last question merits study by economists.

Further questions arise about welfare effects from regionalization. Where do the trade benefits, if any, accrue beyond the producer level? The economic impact on consumers may be too small to study in the case of RFCIP, but is there a benefit to consumers of this type of program? Or will the benefit be absorbed by the middleman—processor? These are more economic questions, answers to which may inform the political debate as regionalization proceeds.

\textsuperscript{38} See John M. Marsh, \textit{U.S. Beef Trade Effects and the Restricted Feeder Cattle Program}, Trade Research Center, Montana State University, Bozeman, MT, Briefing No. 13, November 21, 2000, at http://www.trc.montana.edu.
\textsuperscript{39} Id.
C. Trade Bargains

The process of barrier reduction and freer trade in the Restricted Feeder Cattle case can be contrasted to U.S. activity in the RCALF case to limit imports of Canadian slaughter cattle. There has also been recent activity by North Dakota to use SPS measures regarding beef cattle imports as a weapon in a larger agricultural trade dispute between that state and Canada. These contrasts show that even regionalization of some aspects of livestock trade will not eliminate all livestock trade tensions in the region. There remain many different interest groups who can, and will, attempt to use the political process to their own benefit. Hopefully, the results of the regionalization initiative by Canada will provide political ammunition for those who fight against new trade restrictions. It is likely that the RFCIP dampened the enthusiasm of Montana cattle producers for the RCALF case against Canada. The move to compliance with international law that is implicit in RFCIP and the advantage this may have in our trade negotiations with the United States is one of the justifications for the RFCIP.

D. Integration and Interdependence

There is a high degree of integration and interdependence between the cattle and beef markets of Canada and the United States. There is a significant amount of cattle and beef trade and a close relationship between prices of these commodities in the two countries. The regionalization initiatives by Canada and the United States have enhanced this market integration.

E. Regional Analyses

The application of SPS measures on the basis of zones or regions is a concept that is now enshrined in international law. Countries will have to defend their SPS measures on the basis of this international law and in many cases this will be done on the basis of regional assessments. Therefore, the geographic area for economic analysis of these SPS measures has shrunk from the nation to the zone or region. Economic data collection and modeling will have to be refined to give accurate analyses on the basis of zones or regions.

F. Health Status as a Comparative Advantage

One of the implicit economic messages of RFCIP is that the health status of animals in a region has become an important factor in determining the comparative advantage of a producer in the region. The ability of a producer to market animals in a larger marketplace will influence his revenue and profitability and his long run survival. Health status and SPS measures will have to be considered in economic analyses of trade opportunities.

XIII. Methodology for Establishing Regional Trade

It is now possible to describe a methodology for establishing a legal framework for trade on a regional basis. This methodology draws on the Canadian experience with the trade in livestock with the United States. This general methodology is described in this section.
A. Understand International Laws

Proponents of change must understand the international legal rules that affect trade in livestock and livestock products. These rules include the WTO Agreements, specifically the SPS Agreement and the Technical Barriers to Trade Agreement. They also include NAFTA or other regional trade agreements. It will be necessary to understand not only the treaty provisions but also the interpretation of these provisions by dispute settlement bodies and academics.

B. Understand the International Standards

The international standards set by organizations such as the OIE will be of prime importance. These standards will include the specific sanitary or phytosanitary protocols as well as standards for risk assessments. International standards now provide the scientific standard against which national rules will be measured. They are a starting point in any scientific enquiry.

C. Lobby Efforts

There are many obstacles in the way of reduction of sanitary barriers. These obstacles have been described by Linda M. Young to include:

1. Many players are involved in the process.
2. Requirements to change regulations are different from country to country.
3. Government agencies hold conflicting objectives.
4. Industry groups from both countries insist that reductions to sanitary regulations be reciprocal in nature.
5. Risk assessments are difficult and costly.

It will always take a significant amount of effort in the political process to accomplish regulatory change. Any successful attempt to reduce sanitary barriers will require interest group lobbying to overcome the obstacles noted above.

D. Risk Assessments

The key aspect of regulatory change will be a positive risk assessment of the proposed change. The risk assessment will be undertaken by the relevant government authority. Interested parties should seek an opportunity for input into the risk assessment process, particularly into the economic analysis. Participation in the risk assessment process should ensure that the best possible information is considered.

E. A Pilot Project

A pilot project that is limited both in time, area, and species will be useful in demonstrating the effectiveness and benefits of regionalized trade. Regulatory approval for a pilot project may be easier to accomplish than a general regulatory change. There may be lower costs involved in establishing a pilot project, thereby making it more attractive to both industry and government.

40. See Young, supra note 11.
F. Expansion of the Pilot Project

Once a pilot project has proved successful and beneficial, it will be a logical step to entrench the regulatory changes on a more permanent basis. The area and species may still be restricted, but the permanence of the program will allow its proponents to demonstrate success on a longer term. It may also be possible to expand the pilot project to a larger area to demonstrate its workability on a larger scale.

G. A General Regionalization Rule

The final step in establishing the regulatory framework for regional trade will be the creation of a general rule or regulation for all zones and all species of livestock. This will involve the delegation of administrative authority by the government for the establishment of regional trade zones. This should simplify the future establishment of appropriate trade zones for different species. The general regionalization rule will also allow the identification of different health status levels. The administrative body will be able to recognize equivalent health status areas as well as lower and higher health status areas. This process may allow for significant flexibility and therefore argument over health status equivalence. However, the international rules will apply to ensure that any such standards are ultimately subject to transparent risk assessment procedures.

This general analysis of the methodology for establishing regional trade areas may be useful for any industry hoping to achieve the benefits of regional trade. It can be applied wherever there are sanitary barriers to trade that prevent trade from fully developing on the basis of comparative advantage. Parts of this methodology can be applied even after the adoption of a general regionalization rule. The steps described here are equally relevant when Ministerial Orders or administrative rulings are sought to reduce SPS trade barriers.

XIV. Conclusions

It is possible to draw a number of conclusions from the Canada-U.S. experience with respect to the Restricted Feeder Cattle Import Program. First, in the future, health status equivalence areas will be one of the factors in determining comparative advantage in trade in livestock. These areas of equivalence will be based on ecosystem zones or regions, rather than nation state boundaries. The areas of health status equivalence will be determined on a regional basis by the application of international standards and international protocols for risk assessments.

Second, one of the results of regionalization has been the internationalization of domestic law. Trade agreements are now driving changes to domestic law and regulation. International standards organizations like the OIE will set standards for use in domestic regulatory law in the future. Trading partners and domestic interest groups will demand changes to domestic law based on international standards and risk assessments. Scientific based risk assessments will be used to challenge economic and political consideration in domestic law making. Both lawyers and economists must understand this new international background to domestic law making if they are to effectively participate in domestic law making.

Third, risk aspects still surface after the regionalization program has been introduced. For example, heifers were imported into Canada under the Restricted Feeder
Cattle Import Program. However, they were imported for breeding and release into the Canadian breeding herd, and not for slaughter. The Canadian Food Inspection Agency stated that this importation contravened the spirit of the regulations. But it appears that the CFIA has taken no action to stop the practice. Does the importation of heifers for breeding purposes break the rules? Not likely. Was this a result of bad drafting? Or was it simply bad risk taking? Or is the risk to the breeding herd acceptable? The CFIA has not attempted to amend the regulations, possibly as a result of the proposed regulations now in place that would allow changes to be made by Ministerial Order.

Fourth, most U.S. cattle producers and their lobby groups do not see a continental market for beef cattle. Rather, they appear to wish to isolate the U.S. market. This is partly reflected in the lack of cross-border industry groups between Canada and the United States. The regionalization initiative of the RFCIP marks an important move towards a single market. It does not represent a large enough economic incentive for an immediate change of perspective by U.S. cattle producers. However, the RFCIP does represent another step in the right direction. The RFCIP can serve as a model for further integration of the continental cattle market for the benefit of producers and consumers. The process used to accomplish this regulatory change can be used again, both in other beef cattle initiatives and in other livestock species. The successful move to feeder cattle trade on a regional basis can be used as a model for the future regionalization of trade in livestock and livestock products.

Finally, the WTO has created the legal basis for eliminating national trade restrictions and replaced them with international standards in the area of SPS measures. NAFTA has had the same effect of eliminating national SPS restrictions on trade, or at the very least harmonizing trade regulations within the region. These changes have introduced an element of international economic democracy for producers that did not exist before these agreements of the 1990s. By this I mean that the international trade agreements now limit the power of a nation to control the actions of its citizens through domestic SPS measures.

The SPS measures must now be scientifically justified, not just politically justified. This international limitation on national state power results in more freedom of choice and more options in the individual's economic life. For example, the Alberta feedlot owner is now free to choose to purchase feeder cattle from Montana, an option not previously open to him. The Montana cattle producer can now choose to sell to a Canadian feedlot at a higher price. So the national boundary has become less important to these individuals as they decide where to buy and sell their livestock. International law has created new economic rights for individuals whereby they have more freedom and more equality with other producers because of their location within a region and regardless of a national boundary.

41. Id. at n.26.
42. However, the right of a nation to continue to rely on political justification, at the cost of economic retaliation, is being played out in the WTO Beef Hormones case.