With the signing of the CUSFTA, the NAFTA and the GATT agreement there are three trade agreements between the United States, Canada, Mexico and the rest of the world. Each of these three agreements has slightly different limitations. As a result, the interpretation of the rules under which any, either or each agreement takes precedent is subject to question. The major present dispute is between the United States and Canada. Both the United States and Mexico, and Mexico and Canada trade relationships have the potential for a major dispute in dairy. This paper will focus on the relationship and analytic needs for the dispute between the United States and Canada, but some of the economic issues are transferable to trade issues between and among: the United States, Canada and Mexico.

The United States and Canada differ in their interpretations on access tariffs (second-tier tariffs) on dairy, poultry, and eggs (supply-managed commodities) under the World Trade Organization (WTO). The U.S. position is that the tariff rate quotas are inconsistent with the United States-Canada Free Trade Agreement which now is subsumed under the North American Free Trade Agreement (NAFTA). As a result, the two countries are in the preliminary stages of forming a Dispute Settlement Panel to examine the issue. Even so, Canada may not be able to eliminate the trade rules for these commodities in the short-run due to federal-provincial jurisdiction on marketing agreement.

Although the decision made by the panel is a legal interpretation of several treaties, economists have a place in the discussion. At this point it is important to be able to provide the best economic intelligence that is available on the impacts of a range of scenarios. Choosing the final outcome is difficult so, a best and worst case scenario from both viewpoints is important. Within these reference points different levels of trade can be examined.
THE U.S. AND CANADIAN RELATIONSHIP

In 1988 the United States and Canada signed a trade agreement (CUSFTA) that provided a minimum access for the U.S. and Canadian dairy industries to each other's market. Under this agreement quotas were established on dairy products along with tariffs. These tariffs were to be reduced over 10 years. The North American Free Trade Agreement (NAFTA) extended this relationship to Mexico, and set up general rules about tariffs and other border measures. NAFTA was effectively a set of bilateral agreements for agriculture, between the United States and Mexico, Mexico and Canada and incorporated the earlier United States and Canadian agreement. Under NAFTA all tariffs were reduced to zero over a given time frame. Finally, the General Agreement on Trade and Tariffs was signed in 1994. This agreement calls for countries to convert all quotas into tariffs, to provide for minimum or current access, and to adopt transparent sanitary standards.

Under the World Trade Organization (WTO), implementing on January 1, 1995, Canada has agreed to replace its import quotas on dairy, poultry, and eggs by tariff-rate quotas (TRQ). Under Canada's TRQ, within the access quantity the product is subject to a low tariff rate and imports over-the-minimum-access level would face significantly higher import duty (tariff rate quotas). The second-tier tariffs are scheduled to decrease annually over a six-year period (by 15 percent in total). In 1995, tariff equivalents are 351 percent for butter, 289 percent for cheese, and 283 percent for milk. By 2001, the end of the six-year period, the tariff equivalents for the three commodities would be 299, 246, and 241 percent, respectively. As a result, the supply-managed commodities would remain highly protected above the TRQ level. The high over-access tariff rates would allow the supply management program to continue to operate effectively (Canada Trade Policy Review, GATT, 1995).

Under the WTO, Canada would allow minimum market access to increase to 5 percent by 2001. For dairy, poultry, and eggs, minimum access levels are not expected to result in an increase in imports from the current levels, except for butter and ice cream. Canada also announced that it will provide market access to the United States as defined by the NAFTA/CUSFTA.

This set of agreements has led to some confusion. Under the NAFTA, Article 302, neither country is allowed to increase any existing custom duty or introduce any customs duty on goods originating in the territory of the other country. In addition, the NAFTA/CUSFTA calls for complete elimination of all tariffs between the two countries by January 1, 1998. For example, under the NAFTA/CUSFTA Canada agreed to increase global import quotas for poultry, and eggs. Canadian global quotas for poultry were subsequently increased from 6.3 percent to 7.5 percent of previous year's production. Over-quota imports would have to be assessed a small tariff which would drop to zero under the NAFTA/CUSTA. The new rules under the WTO appear to change this by allowing a high tariff rated quota to be used by Canada. The introduction of a tariff-rate quota for dairy, poultry, and eggs on U.S. products is viewed by the United States as a violation of the NAFTA/CUSTA provision. The United States continues seeking increased market access. Canada, on the other hand, maintains that the WTO supersedes NAFTA. Imports above the
WTO minimum access would place significant pressure on Canadian dairy, poultry, and egg producers, particularly producers in Quebec and Ontario. In 1994, the dairy subsidy to the two provinces amounted to 78 percent of the total national dairy subsidy. This has the added dimension of complicating political tensions within Canada at the same time.

THE U.S./MEXICO RELATIONSHIP

Presently, Mexico has placed tariff rate quotas of 40,000 metric tons on nonfat dry milk that is imported from the United States. Under the NAFTA agreement, the TRQ quota on dairy product imports was to grow over the period from 1995 to 2005 as the tariff was reduced to zero. Mexico was also granted access to the United States but subject to sanitary restrictions. However, the domestic dairy industry in Mexico has a long way to go to meet domestic needs let alone have product to export to the United States.

The largest U.S. dairy export to Mexico is nonfat dry milk. These exports are shipped under Domestic Export Incentive Program (DEIP). Even with the advantage of lower tariffs faced by the United States, as opposed to other countries, the United States is still at a competitive disadvantage because of its high support price relative to the world market price for nonfat dry milk. Against the main subsidized EU dairy products, butter, NFDM, and bulk cheeses, the United States is not competitive in Mexico without subsidy. However, for unsubsidized products the United States made large gains in 1994. The devaluation of the peso made these products less competitive in 1995. The United States has been able to provide some higher value products such as ice cream. However, with the decline in the peso these exports have fallen dramatically, as well.

RESEARCH AND ECONOMIC ANALYSIS

The research and economic analysis of the dispute is in its preliminary stages. At the present time a framing of the debate is needed. Once the issues are framed, the research and economic analysis can be undertaken. It is fairly easy to define the two extreme cases in the U.S.-Canada dispute, free trade and the present trade situation. The difficulty is not in the definition of the scenarios but the resulting policy and structural changes that must occur under each of the open border arrangements. This is an important area of discussion for dairy industry economists in academia, industry and government. These issues also become regional in nature due to the natural trade flows that would occur. It is necessary to define tools which will examine the changing north-south as well as east-west trade flows.
Basic analysis requires information on:

- Structural/cost research both nationally and regionally;
- Economies of size at farm/ marketing/ processing;
- Change in market development.

Although Halberg at Pennsylvania State University has done some preliminary work, much more is needed. This conference is a first attempt to set parameters on the analysis and provide some initial information on the effects of the settlement of the dispute on the dairy industries or forecast effects of future adjustments. This analysis needs to be national and regional in nature. However, we should not stop at looking at the farm level. The secondary and higher level effects on the macro or rural economy need to be examined.

In any solution that is presented there will be winners and losers. It is important to try to define the level of the loss. Inevitably, political ramifications will be involved in figuring out ways to compensate the losers. Loss of jobs in any rural area creates dislocation problems. In the dairy sector you not only have the farmers but also the processing and distribution industries. As we have seen in areas of Wisconsin and Vermont there are few alternatives for this labour.

WHAT IS NEEDED BY THE POLICY MAKERS

In general the academic community has been prone to longer term research studies. These are useful when they are timely. However, telling policy makers one year after the decision has been made, what the impact was is not very useful. Quick turnaround analysis that is consistent and timely is the most important thing that policy makers need. Ordinal rankings of the economic impact on the consumer, producer and the government costs of the policy or program at least provides policy makers a direction if not a precise road map.

In order to do these analyses it is important to have in place several flexible models that can be adapted to relate the impacts of policy decisions. Changes in policy in many cases implies change in industry structure. If a model is based on behaviour under past policies, it is up to the model builder to adjust the model to fit what he or she thinks will occur. In many cases the analyst must draw from some of the longer term research to alter the relationships for the short term analysis. A good example of this is some of the work done on risk. If some policy change increases the risk to producers, how will they react to these changes?
SHORT TERM POLICY WORK

Short term policy work involves the reaction to proposals that have been put on the table by negotiators. The time frame for these analyses are a few hours and usually not more than a week. The ability to answer these questions quickly and consistently usually involves the use of some type of model and existing data base.

The models or tools that are used in this type of analysis need to be flexible and readily available. There is little time to develop a model framework in the short time that is required. Model builders need to recognize that flexibility is very important in short term analysis and develop their models accordingly. Along with this adaptability, the models need to be transparent and easily used by other individuals. Dairy can be a complex topic, but for most policy makers we need to reduce the confusion to a minimum level. Hence, a policy maker will focus on how much it costs, who wins, production, prices, farm income, and little more. In many cases the ability to pull parts or all of some on-the-shelf model makes the policy analysts job much easier. A robust model that allows for a complete policy redesign is necessary.

Models used in short term analysis do not necessarily need to be point accurate. It is more important to present a relative ranking of policy options as apposed to the exact dollar amount of the impact. Therefore, the model builder needs to focus on the consistency of his model. Models need to flow logically from the economics. Good forecasting models may not work since policy changes alter the behaviour in the framework of the model. The proper sign and the expected relationships that underlie the economics of the industry need to be stressed. Some statistical accuracy may need to be traded to obtain economically consistent answers.

Timeliness is essential. Having the answer tomorrow when the decision is being made today does not do anyone any good. In most cases the answer was needed yesterday. This is particularly true in trade negotiations. Remember, policy makers don’t appreciate your problems or care about them. Again, providing a broad outline of the relevant boundary solutions will help in the short term analysis. It is also helpful to provide the impact of various provisions that could be adopted. The impact of several different provisions may not be additive, but this type of analysis would provide some type of guidelines.

LONGER TERM RESEARCH

In the United States-Canada dairy trade dispute, the major issue or uncertainty is what would the Canadian or U.S. dairy industry look like if the borders were opened or domestic policies were dramatically changed. Price support for the Canadian dairy industry is based on marketing quotas. These quotas are allocated among the provinces. In effect there is no
free trade in milk within Canada. Without import restrictions, the milk price in Canada would fall to a level no higher than the U.S. level plus transportation and no lower than the U.S. level minus transportation. What price would be necessary to hold a significant share of Canadian dairy resources in either production or processing, without restructuring? Alternatively what price would be likely with restructuring?

The United States and Canada share 3000 miles of common border and each part of this border shares common resources. The difference in the size and structure of the dairy industry in the two countries reflects more of a policy difference than a resource issue. In many cases the natural trading flow without political boundaries would be north south. The Pacific northwest is a perfect example of this type of flow. Vancouver, Seattle, and Portland form a micro economy because of the natural barriers of the mountains to the east with north-south valleys.

With the natural trade flows that exist, the impacts that we examine on a national level, should then be disaggregated into regional impacts. Adjustment in domestic policies in both countries would have to assess the resources directly across the border from them.

One of the most useful pieces of intelligence that the economist can provide is relating the regional differences into the alternative policy options that could occur. In the present environment, costing out these options is an important piece of information. As an example, if the over-quota tariff rates go to zero in between the United States and Canada, the Canadian dairy policy would be impossible to maintain via production quota if cheaper milk flows from the United States.

A secondary piece of information that can be provided by industry economists is the form that the U.S. domestic industry would take if free trade develops or domestic policy changes. Under the present U.S. policy, we have seen growth in the size of the dairy operation, in part because the margin in the production of milk is so small that the operators must expand to be able to support their families. Will this trend accelerate? In Canada, even with their quota system, there has been some expansion in operation size. However, the cost of the quota has slowed this transition. If the removal of the quota system is necessary, how does the Canadian dairy industry structure adjust to maintain farm income and what are the implications for price sensitivity for Canada?

One method that can be used to analyze the impacts of structural changes in the dairy industries in both the United States and Canada would be to examine the supply response among different sizes of operation for both farms and processing plants. If these responses differ dramatically, some type of adjustment to the industry response could be made dependent on the assumptions of the level of structural change. This type of information coming from the academic community would be extremely helpful to the policy analyst.

An even trickier question in Canada is how or if quota holders are compensated for their asset loss. If the transition of Canadian dairy policy is over a longer period, then these quotas could be discounted. Does the Canadian industry move towards more of a New York state type dairy structure in the east or a Washington state type dairy in the west? A potential
future model in the Midwest is a 400-700 cow operation, which captures the economies of size and competes with the western dairies.

The processing industries will also be forced to change if the borders are opened. Questions about the competitive advantage of different segments of the dairy process industry in the United States, Canada and Mexico become important. Is it advantageous to set up joint processing facilities? Does one country focus on a specific type product that it can produce better. The big question is how will the processing industries look after the settlement. Will there be vertical and horizontal coordination across borders? These are areas that the universities can help us understand.

POLITICAL REALITY

One issue that the analysts within governments have to face is the political reality of the situation. Because of the constraints placed upon us by the elected officials, some of the analysis that we do may not become public, though highly prized and used by officials in their decision making. Also, some of the assumptions that we make may take in some of the political constraints or implication among the other alternatives. The academic community has some leeway in analysis, but also faces some constraints. Policy analysts may be prohibited from open and frank discussions during negotiations to avoid tipping off the other side of the negotiation. Therefore, academia can serve as public voices for some issues without being seen as signaling a government’s position on an issue. State universities also suffer political constraints imposed via state legislatures and University budgets in terms of where money is available for research. In trade agreements there may be some type of side agreement that will be made, which limits, but may either increase market access or affect costs.

TIME FRAME FOR THE ANALYSIS

In the world of the government policy analyst, timing is very important. Analysis takes time to flow through the system. In many cases there may be less than a day to perform an analysis. The policy proposal may be incomplete and require clearly stated assumptions. This is why it is important to have flexible working models. These models may give up some detail, but it is important to give the decision makers quick and consistent analysis with the correct signs. Longer term research which takes several months must be done well ahead of the discussion to be of any use. Research success in policy is a case of issue identification and anticipation. Since many policy issues are generated by narrow interest group
perspective, it is not easy to identify both the issues and which group is going to get the ear of the Secretary or the Hill, in time to provide meaningful original research.

CONCLUSION

The only way to conclude this paper is with this statement "Precautions should be taken for unforeseen circumstances." We do not know what the political or legal outcome of the dispute panel will be. We can only speculate and try to provide the best analysis that we can as quickly as we can. The most important points in policy analysis is:

- Be consistent, (probably the most important point).
- Keep it simple, do not confuse people with minutia.
- Be timely, most answers were needed yesterday.

Longer term research needs to focus on structural change and on industry adjustments to the policy changes. Policy changes will alter both behaviour and market structure. It is our job as economists to provide the best information that we can on what this outcome will be. Taking a look beyond the farm level of the dairy industry, processor and consumer impacts should also be examined.

We must remember that economics does not always rule. Policy makers may well make uneconomic choices for other reasons. However, those choices are enhanced when the cost of the decision is known.

Finally has any one started to consider what effect the next WTO round is likely to have on the North American and world dairy industries?

REFERENCES
