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—DISCUSSION—  
**ANALYSING THE POTENTIAL FOR INCREASED TRADE**

*Alfons Weersink*

International trade of dairy products has been approximately 7 percent of world production over the last decade (Stillman et al., 1996). Canada and the United States have not been major players in this small international dairy market with imports and exports of dairy products representing less than 3 percent of total milk production in both countries. However, domestic dairy policies in these countries and others which have curtailed past movement of dairy products are now under pressure to change externally from trade agreements such as NAFTA and internally from government fiscal constraints. The possibility of liberalized trade and subsequent change in the status quo creates excitement and anxiety over the new set of rules facing the dairy sector. American producers and processors view an open Canadian market as 'ripe for product infiltration' for manufactured and even fluid dairy products (Howard, 1995). Such optimism is buoyed by reports such as Bromfield *et al* who predict free trade would result in U.S. imports of dairy products meeting 20 percent of Canadian domestic consumption. The two papers in this session also examine how trade flows between Canada and the United States would change in the event of increased trade.

The purpose of this discussion is to compare the papers by Doyon, Pratt and Novakovic (DPN) and Meilke, Sarker and LeRoy (MSL). Similarities and differences between the two papers are examined for the purpose or scope of analysis, methods used, and results obtained along with suggestions for extension of the analysis. The discussion concludes with a brief synopsis of Victor Fuchs' tofu triangle and its relationship for the participants of the policy debate surrounding the dairy sector.

## **PAPER COMPARISON**

### **Purpose**

The purpose of the paper by Doyon, Pratt and Novakovic (DPN) is to determine the movement of milk and dairy products with existing supply and demand conditions under two scenarios. The first assumes the United States is able to unilaterally export yogurt and frozen desserts to Canada and the second assumes total free trade between the two countries. The paper by Meilke, Sarker and LeRoy (MSL) also examines trade flow but at a more aggregated level and with a focus on identifying the key economic forces which will determine the extent of such trade.

### **Methods**

The two papers represent contrasting forms of analysis. DPN use a spatial equilibrium model that minimizes the cost of processing and transporting raw milk from its supply points to its final product form at given demand locations. Thus, the model is consistent with physical realities in the sense that the milk going into a plant must be balanced with the components of the products coming out. The strength of the model is its disaggregation and detail particularly at the processing sector which tends to be given less emphasis than the farm sector in most models of the dairy industry. Data on actual processing plant locations and costs and transport costs are incorporated into most models as marketing margins but have been labouriously obtained by DPN. However, since supply and demand relationships are not considered, the model is able to examine only market organization and not price equilibrium conditions.

In contrast, Meilke, Sarker and LeRoy (MSL) develop a simple synthetic trade model at an aggregate level for two dairy products where trade flows are the result of a price equilibrium. Products move on the basis of relative prices and costs along with the degree of responsiveness to those rather than on the basis of fixed processing cost differentials as in DPN. MSL have taken the raw data presented by Barichello and Romain the next step to allow for players in the sector to respond to those prices. While the model is admittedly simple, it does capture the basic elements of the system and the authors subject the model to a series of sensitivity tests to assess the importance of alternative factors.

### **Results**

Despite the differences in approach, both models come up with two similar conclusions; (a) net trade flows between the two countries will be relatively small under deregulation; and (b) these flows are insensitive to processing costs. The results of DPN are intuitive given the type of model used. Under free trade, a large amount of cheddar cheese

moves from Quebec to the northeastern United States due to the large amount of industrial milk supplied by this province. The model is able to identify specific products that move and to where. These movements tend to be local but DPN note the results are sensitive to distribution and assembly costs. Consequently, technology that lowers transportation rates could extend the degree and range of product movement.

The major finding of MSL is the importance of marginal cost of producing milk on possible trade flows. Actual marginal cost is difficult to determine and has not been adequately captured in most previous studies of Canadian dairy farmers. There is no relationship between price received and amount supplied under supply management. Consequently, a decrease in farm milk price as would occur under deregulation could very well result in an increase in Canadian milk supply if farmers were no longer subject to production controls. Highlighting this apparent paradox alone makes the paper a worthy one as the failure to differentiate between marginal cost and price at existing supplies can explain the large detrimental effects to Canadian dairy producers predicted by some previous studies.

Two other effects are not part of the sensitivity analysis by MSL but will also likely have major impacts on trade flow : (a) transportation costs and (b) exchange rate. Lowering transportation costs would lower the U.S. landed price and thus shrink the band of Canadian prices for which there is no net trade between the two countries. Rather than changing the size of the price band with no net trade, exchange rate movements change the position of the band. A lowering of the Canadian dollar relative to the American dollar would enhance the competitive position of the Canadian industry by increasing the price at which U.S. imports would enter.

## Extensions

An obvious extension to the work by DPN is to allow supply and demand to vary with prices rather than remain fixed. However, I think it more fruitful to extend the detailed analysis to other regions while acknowledging the model's inability to account for price response. The model is designed to determine the location of processing sites and how changes in assembly costs or quantitative restrictions will affect the movement of milk and its products within the sector. Allowing the levels of those variables to change with prices would require a great deal of effort which would best be spent building upon the model's strength. The important issues regarding price would then be left to be analysed with models such as the one presented earlier by Cox and Sumner. In conjunction, the approaches could provide much of the information required to make policy choices.

Incorporating the Canadian information of MSL into the model by Cox would be a means to extend the analysis provided by both parties. Their approaches are complimentary but there is little overlap in coverage at the present time as MSL focus on the Canadian dairy sector while Cox ignores that sector completely. A joint effort would result in a more complete analysis than if each was to proceed individually. Hopefully, such an extension will result and serve as a compliment to the efforts by DPN.

## THE 'TOFU' TRIANGLE

MSL conclude that while net trade flows of dairy products between Canada and the United States are likely to be small under deregulation, the loss in quota value by Canadian farmers poses a significant policy question regarding compensation. The equity issues surrounding this policy choice and the role of economists in the debate around such choices are clarified in a recent article entitled "The 'Tofu' Triangle" by Victor Fuchs who is past president of the American Economic Association and an expert in health economics. The article is based on his new book *Individual and Social Responsibility: Child Care, Education, Medical Care, and Long Term Care in America*.

Fuchs begins by noting that all policy choices, including ones on the dairy sector which we are discussing in this conference, require knowledge about the consequences of alternative actions. Economists can play a fundamental role in the policy debate by identifying the trade-offs among different policies. The papers just presented provide results on price and quantity changes in response to deregulation. This is the type of objective information that can be generated by economists and are necessary for effective policy debate. However, Fuchs claims the role of economists in the debate is diminished when particular alternatives are promoted without making clear the values behind the recommendations. Public perception that economists can never agree is due to economists becoming involved in the political process without clarifying the influence of personal values in the policy choices they advocate. Since values differ, so will the conclusions advanced by economists.

The main value issues centre around government's role in income redistribution. To illustrate his assertion that differences in the positions of economists largely reflect differences in their values regarding the government's role in the economy rather than in how the economy works, Fuchs presents results of a survey of leading health economists. There was wide agreement among the group on value-free questions dealing with how health care markets work and the economic determinants of health. However, the economists' assessment of alternative health care policies varied significantly with their opinions highly correlated to their view of the choice between efficiency and justice. This choice of individual responsibility versus social responsibility has no right or wrong answer. Both are necessary for a good society with the ultimate weighting in a particular public policy depending upon society's values.

When economists enter into the political process of deciding upon policy choice without indicating the values behind their recommendations, they form part of Fuchs' 'tofu' triangle. The other elements are journalists and politicians or stake-holders. As with economists, journalists have an ideological bias that can be reflected in their reporting of issues surrounding the debate. Journalists can further hinder the ability to reach consensus by featuring extreme views that grab the spotlight rather than on areas of agreement. While economists and journalists provide information, final decisions rest with politicians. Since these choices involve values, a prerequisite for sound decisions is the need for politicians and

stake-holders to indicate what values they stand for. However, changes in farm structure are making it more difficult for producers to agree on the values they wish their organizations to be based upon. The conflict between what is best for the individual versus the collective is at the heart of the tumultuous times for organizations such as the Canadian Wheat Board and the Ontario Pork Producers Marketing Board. If stake-holder groups are unable to reach agreement on the values that define the group, politicians have an even more difficult time selecting the right policy choice. The combination of compliant or exploited economists, jaded journalists and poll-directed politicians together form Fuchs' 'tofu' triangle; an intellectually soft and squishy foundation that generates shallow and inconclusive debates on policy choices.

Since policy choices involve values, differences between choices by members of society will never disappear. However, the 'tofu' triangle can be solidified and thereby aid in the reconciliation of differences when the triangle elements clarify how facts and values enter into their policy choices. Journalists should report on solid factual information on issues behind alternative choices. Politicians and stake-holders need to be candid about the values they seek to promote. Finally, economists must make their values explicit when recommending a particular policy and make their research accessible to a wide audience. It with the latter that I issue a concluding challenge to the authors. Deregulation in the dairy sector has generated heated controversy partly on the basis of predictions for large U.S. imports. The studies in this session both disagree with that forecast. The results of their analysis along with the assumptions behind it are necessary information for interested participants. With this information, the effectiveness of the debate on legislation for the dairy sectors in both countries will be improved and thus the chances of reaching a policy choice that best reflects the values of all society.

## REFERENCES

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**THEME: POLICY DEVELOPMENT AND PROGRAM ASSESSMENT NEEDS,  
DAIRY POLICY RESEARCH NEEDS**

**OBJECTIVE**

To provide industry and government perspective on the analytic, data and research needs for future policy development and program evaluation. Alfons Weersink received participant comments, synthesized them and reported them to the workshop.



