

ERS 2001 EU Modeling Workshop
New Challenges in Modeling EU Agriculture and Agricultural Policy

Session 4--Modeling Consumer Demand and Related New Topics
Friday, November 16, 2001
1:30 PM - 3:00 PM

The consumer demand session focused on the modeling challenges presented by increasing consumer concerns about food safety and product quality. The session included three presentations:

- 1) A short presentation by Lorraine Mitchell outlining the ways in which consumer demand issues can affect modeling;
- 2) A presentation by Wyatt Thompson, OECD, discussing the modeling of changes in beef consumption and demand resulting from the BSE crisis in the EU; and
- 3) A presentation by Estelle Gozlan, INRA, discussing different demand specifications that can be used in modeling.

Lorraine Mitchell's presentation outlined the different sections of a model that consumer demand issues (organics, food safety, biotechnology) could affect. These included the demand side, where changes in consumer demand can require modelers to desegregate goods into new categories based on quality, add new elasticities and other parameters, and model sudden drops in demand for particular goods. Additionally, consumer demand issues can affect the supply side of a model. Problems with producing food of a high enough quality can result in a sudden decrease in supply. Policy measures to regulate the quality of goods in response to consumer demand can affect the costs and methods of production. Finally, consumer demand issues can affect international trade specifications in several ways. If domestic goods and foreign goods become dissimilar in the eyes of the consumer, trade can be altered. Domestic regulations imposed in response to consumer demand can affect trade, particularly if they result in a de facto ban on imports.

Wyatt Thompson discussed the effects of BSE on modeling demand for beef in the EU. He made a distinction between consumption (the point on the demand curve at a particular price and quantity where sales actually take place), and demand, which is a mapping of the demand function, and includes slope parameters and cross-price elasticities. Consumption of UK beef fell during the crisis, and while it has recovered somewhat, estimates indicate that consumption is below the level that would have occurred if the crisis had not taken place. The presentation then attempted to address the question of how the change in consumption should be modeled. The demand curve might have simply shifted to the left with the shock. However, consumer tastes might have changed the shape of the demand curve, and policy changes, like stricter regulations on the types of meat offered, might have changed the composition of beef itself. This suggests several empirical questions, including potential changes to the demand curve and changes in exports.

Estelle Gozlan focused on the choice of appropriate demand specifications for modeling agriculture in the presence of consumer demand concerns. Such concerns include the demand

for high quality products. Four different specifications were presented and their suitability for incorporation into multi-sectoral models was discussed.