In recent years, per capita pork consumption in Canada has trended downward, while consumption of chicken and beef has remained relatively stable. One way the industry can respond to declining consumption is by investing in a promotional activity such as discounting. FARE researchers examined the effects of different types of discounts on the demand for pork products in Canada.

The study used data from Ipsos Reid’s Consumer Panel of Canada (from April 2007 to March 2008) to estimate the effect of discounts on the demand for pork. The panel made 51,823 weekly purchases during the study period, of which 15,925 were purchases with discounts. Discounts were divided into three categories: coupons, price cuts and other discounts (e.g., quantity discounts, membership discounts).

The researchers identified 675 types of pork products, which fall under two major categories: fresh pork cuts and processed pork products.

Empirical results suggest that each of the three discount types increased the quantities purchased of all categories of pork products. These results indicate that own-discount effects are positive and statistically significant, whereas most cross-discount effects are negative and statistically significant. The results also show significant differences among the three types of discounts in the own-effects for different pork products. For example, the effects of price cuts on quantities purchased tend to be significantly lower than those of coupons and other discounts.

Despite the benefits retailers gain from offering discounts, one of the main challenges associated with discounts is the risk of cannibalism...
Biofuels and the poor

Research by: Alfons Weersink, Professor, FARE; Jikun Huang and Jun Yang, Center for Chinese Agricultural Policy, Chinese Academy of Sciences, China; Siwa Msangi, International Food Policy Research Institute, United States; and Scott Rozelle, Stanford University, United States and University of Waikato, New Zealand

The food versus fuel debate continues to swirl – this is partially due to the lack of understanding on the distributional consequences across sectors and regions from the expansion in biofuels. This expansion occurred rapidly in the last decade with ethanol levels increasing by approximately five times and biodiesel levels growing at an even greater rate. The growth has been driven by a combination of market developments, such as high fossil fuel prices, and policy levers, such as production mandates.

Agricultural commodity prices have also risen significantly since 2006; increasing demand by the biofuel sector for feedstocks is one contributing factor. These changes in agricultural commodity prices have triggered concerns from governments and development agencies about implications for food security and poverty around the world.

“In the same way that Green Revolution technology and international trade agreements can have differential effects on the populations of developing countries — helping some, while hurting others — biofuels also may have similar impacts.”

The effects of biofuels and the higher prices that their emergence may cause, however, may not be all bad for developing countries and the poverty that they face. In the same way that Green Revolution technology and international trade agreements can have differential effects on the populations of developing countries – helping some, while hurting others – biofuels may have similar impacts.

In theory, consumers stand to lose the most, especially poor consumers with little ways to offset higher food prices. Many small farmers who buy more than they sell would be hurt while farmers who are net-sellers, especially if they own land, benefit from the higher crop prices.

In a recent paper, we assessed the future impacts of biofuel production on the agricultural sectors of developed and developing nations with and without policy mandates and under a number of alternative assumptions on future energy prices and the elasticity of substitution between fossil fuels and biofuels. According to our analysis, biofuel production is driven to expand aggressively by policy mandates even when future energy prices are expected to be low and when there is little scope for substituting biofuels for petroleum-based transport fuels. If future energy prices are high and if biofuels can be substituted easily with petroleum-based transport fuels, the development of biofuels will not be driven by government policy. Rather, producers responding to market signals will be the driving force and production will exceed the mandated levels in all major biofuel producing countries. Hence, if a government wants to stop the expansion of biofuels in a high-high world, the only way to do so would be to ban production by regulation.

Continued on back page

Food trends are always changing, but local food is one that seems to have some staying power. And while Dr. Jayson Lusk doesn’t have a problem with the local food movement itself, he takes issue with those people who would use false arguments about its impact on the environment and food security to influence public policy. “Those people” are the subject of his book, “The Food Police – A Well-Fed Manifesto About the Politics of Your Plate.” Lusk serves as Regents Professor and Willard Sparks Endowed Chair in the Department of Agricultural Economics at Oklahoma State University and also serves as the Samuel Roberts Noble Distinguished Fellow at the Oklahoma Council of Public Affairs. He spoke recently with Dr. Brady Deaton, Associate Professor, FARE, about his book.
Context matters in the local food discussion

Research by: John Cranfield, Professor and University Research Chair; and Students Kelvin Tsang and Yihong Zheng, FARE

Increasingly, we hear about food products differentiated by their characteristics or their underlying production system. Examples include foods that are functional, organic or locally produced as well as foods that reflect heightened social responsibility, such as enhanced animal welfare. While markets for these foods are relatively immature, their growth potential speaks to future opportunities for the Ontario agri-food sector.

In order for producers to seize this opportunity, it is important for them to be able to position their product in the right market, at the right price, and with the right amount of promotion. In this study, the researchers sought new information to help inform aspects of the marketing mix for producers of locally produced organic foods. These foods included two fresh products (Gala apples and tomatoes) and three processed products (pork tenderloin, whole grain bread and aged cheddar cheese).

Choice experiments were conducted through Ipsos Reid’s i-Say consumer panel (a nationally representative, on-line survey). More than 2,000 people from across Canada completed the survey that asked respondents to indicate whether they would buy different versions of the products based on key attributes, including: nature of the production system (i.e., conventionally produced, organically produced but not certified, certified organic), price, distribution channel in which the product is available (i.e., farmer direct, independent grocery store, grocery chain), and distance between location of production and the consumer. Such an approach allowed the researchers to measure consumer preferences across the product attributes and to calculate willingness to pay for the various attributes.

Regardless of whether the researchers asked about locally produced or organically produced foods, the three most important factors were price, taste and freshness. Interestingly, the three least important factors were fairness, tradition and convenience.

Analysis of the choice data suggests that product price and distance between point of production and the consumer adversely affect demand. In particular, as price increases, respondents were less likely to say they would buy the product. The same was true for distance. The latter is important as it says that consumers have a preference for locally produced foods. Moreover, premiums for “local” were higher for fresh products than for processed products, but premiums associated with “localness” fell as the distance between production and consumption increased.

Certified organic products commanded a higher premium than products that were conventionally produced or organically produced but not certified as organic. Premiums for certified organic were also higher for fresh products than processed products. Lastly, availability through farmer direct sales (e.g., Community Supported Agriculture farms (CSAs) or farmers’ markets) or independent grocery stores did not affect choice, while availability through grocery chains increased the probability of choosing the product.

Differences in the premiums associated with local and organic certification across the two product classes (that is, fresh products versus processed products) speaks to the importance of penciling out margins associated with marketing local and organic products. As well, the apparently limited role of alternative distribution channels points to potential complexities in channel selection.

Industry perspective

Local food and organic food are two commonly used terms, but they are also commonly misunderstood by consumers. “It is absolutely consistent for people to confuse local and organic,” says Jodi Koberinski, Executive Director of the Organic Council of Ontario. For instance, some people see “local” and presume it’s mostly organic. Of course, that’s not always the case.

Koberinski also points out that local is increasingly defined by more than quality and freshness. “It’s important for people to recognize that ‘local’ is a proxy for a number of changing and evolving values,” she says. “For some people, local is not just a postal code where the farm is located. Local is about localized food systems, which pays attention to the ecology because the people who produce the food live and breathe there. It also pays attention to commercial values in supporting businesses so that money stays in the community.”

Due to these evolving terms, she suggests taking a more nuanced approach when surveying consumers. “Pollsters must be careful not to misinterpret the results of this sort of data as people driving the market,” she says. “Results are indicative of what people understand about those new emerging markets, but it ought not to be seen as the driver as to how to develop those markets. That takes a more nuanced approach.”

Who are the Food Police? They are an elite group who think they know better than consumers about what to eat, and more than farmers about what and how to farm. They exert incredible influence on both public perception and public policy with little regard to individuals’ tastes, incomes or time constraints. Lusk suggests many new agrifood policies are ill-conceived; that the cost often outweighs the benefit and occasionally the policies even do more harm than good.

Lusk and Deaton discussed “fat taxes” to illustrate this point. He cites both philosophical problems with efforts to tax those foods believed responsible for the obesity epidemic (e.g., he finds them regressive and suggests people should have the right to choose) as well as empirical (i.e., research doesn’t support a significant impact with the target group resulting from the tax).

Lusk recognizes that he is fighting an uphill battle when it comes to convincing the masses there is more good than bad about modern food production because the Food Police have done such a good job of painting a grim picture.

To listen to the complete conversation and other podcasts, visit the FARE website: http://www.uoguelph.ca/fare/FARE-talk/index.html#police.
Agriculture in Canada is subject to an increasing number of environmental regulations, especially since the early 1990s. As liability for non-compliance with these regulations can exceed $1 million, there are strong incentives for farmers to change their production practices in order to comply. However, changes in production practices often add cost to the farm’s bottom line. Ultimately, if the additional costs are higher in some regions than in others, this may put some areas at a disadvantage when it comes to agricultural production.

“These results suggest that environmental policy may change the patterns of comparative advantage in production within supply managed industries.”

In this study, FARE researchers Predrag Rajsic and Glenn Fox assessed the effect of environmental regulations on the location of dairy production in Canada. By tracking the changes in the location of the dairy cow population in Canada between 1991 and 2006, results show a spatial relocation of dairy production within provinces. In Ontario, for example, the shares of six of the top 15 counties, by percentage share of the provincial dairy herd in 1991, have increased. Similar changes occurred in other provinces as well.

Rajsic and Fox also developed a general equilibrium model of comparative advantage to assess the effect of spatial heterogeneity in production intensity and population density on the spatial distribution of production under a uniform emission standard. Their model predicts that the effect of introducing legal liability for pollution may cause relocation of production from areas with higher population densities and emission intensities into areas with lower population densities and emission intensities. Based on this theoretical model, Rajsic and Fox hypothesize that areas with higher dairy cow and human population densities in the 1990s, when a plethora of new environmental regulations was introduced, would experience a relative decline in dairy production over the next decade compared to areas with lower dairy cow and human population densities.

To test this hypothesis, Rajsic and Fox estimated four regression models using 1996 and 2006 Census data on dairy cow and human population densities by census division, while taking into account other important socio-economic factors. Dairy cow and human population densities represent environmental pressures stemming from dairy production and other human activities. These variables might also capture the effect of the potential legal or political conflict between dairy producers and their neighbours.

The regression results are consistent with the initial hypothesis that the dairy production tended to move from areas that had high initial dairy cow and human population densities in the 1990s into areas with lower dairy cow and human population densities. These results suggest that environmental policy may change the patterns of local comparative advantage in production within supply managed industries. This may have implications for the allocation of new quota to provinces, since, according to Canadian federal legislation, this allocation is supposed to reflect provincial comparative advantage.