Stock Market Reaction to USDA BSE Announcements
Rimma Shiptsova, Steven Vickner, and Lucas Mumford

This study estimates market reaction to BSE announcements (Bovine Spongiform Encephalopathy, known in the media as Mad Cow Disease). Mad Cow Disease was first found in Great Britain. On March 20, 1996, a day known as "Black Wednesday" to the British beef industry, the British Secretary of State of Health announced that a possible link existed between BSE and the Creutzfeldt-Jakob disease (vCJD), the human variant of Mad Cow Disease, thus creating environmental uncertainty in the food chain. Seven years later, BSE struck the Canadian beef industry. Seven years later, in May of 2003, BSE struck the Canadian beef industry. Half a year later, on December 23, 2003 BSE was confirmed in the U.S. It was announced that a cow with BSE had been discovered on a dairy farm in the state of Washington.

This study covers events from January 2003 through February 2005. Both the beef industry and government bodies felt the effects of the first BSE announcement. One of the most immediate effects was a fall in relatively high beef prices. In 2004, on June 25, June 29, and November 18, the USDA announced inconclusive BSE test results. We tracked five newspapers to discover how many articles had been published concerning BSE. The Wall Street Journal printed more articles on BSE than any other paper. The media paid a lot of attention to the BSE case in December 2003; however, BSE coverage fell considerably in late June/early July and November of 2004 in comparison to reporting on the case of Mad Cow Disease in 2003. This study examines both processing- and food-industry stock prices to determine the effects of the announcements. The companies included in the research are McDonald's, Wendy's, Yum brands (A&K, KFC, Long John Sil-

ver, Pizza Hut, Taco Bell), Tyson Foods, Smithfield Foods, and ConAgra.

We intend to measure if the variability of stock prices got lower as media coverage shrank. The study employs event study approach. That studies approach has been used for quantifying stock market reactions by various authors (Brown and Warner 1985; Khanna, Quimio, and Bojilova 1998; McKenzie and Thomsen 2001). We intend to use a standard mean-return model to analyze price reactions for the days surrounding each BSE announcement. Preliminary results suggest that the effects of an announcement fade over time; stock-price variability shrank as media coverage faded. This result is somewhat similar to the consumer response to publicized food-safety information studied by Piggott and Marsh (2004).

References

Factors Influencing the Initial Public Offering (IPO) Decision of Food Distribution Firms
Forrest Stegelin and Jack Houston

Although known for listing some of the world's most innovative technology-based corporations, the Nasdaq market is also home to over 100 agribusiness firms, including many that are in the food-processing or food-marketing industries. Changes in the food-industry sector such as globalization, mergers or acquisitions, and vertical integration have forced management to seek new financing alternatives in order to keep up with the competition. These firms recognize that the public equity market is a powerful tool in financing the growth necessary to remain competitive. An initial public offering (IPO) offers a private firm access to far more equity capital than is available from other sources, as the average Nasdaq IPO raises over $40 million to fund present growth, improve a firm's overall financial condition, and provide additional borrowing capacity for financing continued growth.

A decade ago several agribusiness firms explored the feasibility of public ownership. When the markets weakened in the late 1990s, a few of these firms put a temporary hold on the IPO process, while others continued to implement an IPO but with mixed results. As stability has returned to the financial markets, there is renewed interest in understanding the factors and characteristics of a business and its industry that supports the establishment of a firm's initial public offering. Management of interested firms realize not only the process but also that meeting an exchange's benchmark listing requirements does not guarantee a successful offering.

Problem, Methodology, and Results

In response to managerial inquiries, this study compares recent food-industry IPOs to qualifying food-industry firms in order to identify the financial determinants necessary for a food-processing or a food-marketing firm to successfully enter the public equity market. An effort to predict a firm's decision to go public implies that management has two alternatives, either remain privately held or enter public ownership through an IPO. Incorporating financial factors as explanatory variables, a probit model is used to estimate a food-industry firm's probability of going public.

The econometric framework for the study is based on a privately held firm's IPO decision, given specific internally and externally occurring financial conditions. Eight implications were developed:

- smaller, under-funded companies are less likely to go public;
- proprietary knowledge possessed by a firm may have some bearing on its decision;
- firms facing a need to finance rapid growth are likely IPO candidates;
- companies experiencing a "hot issue" market resulting from equity over-valuation will exhibit a greater probability to go public;
- adverse selection is an IPO hindrance for younger, smaller firms;
- company profitability (return on assets and return to equity) is of issue;
- firms with large market-share positions exhibit greater propensity to go public; and
- if a high percentage of firms within a certain sector choose to go public, then other firms within the same sector will exhibit a greater probability of choosing public ownership.

Postulating that a firm's size, maturity, growth rate, profitability, financing needs, prevailing market conditions, market-share position, and industry composition would influence the IPO decision, the empirical model utilizing probit analysis was estimated and found to be robust in its predictive accuracy. The findings are summarized as:

- a food-industry composition affects a firm's decision to go public;
- a firm's growth rate is correlated with its
probability of listing; thus, a firm's profitability significantly affects the IPO likelihood; and as a food-industry firm's leverage ratio increased, its IPO likelihood also increased, and the IPO probability decreased with a firm's size and age.

Problems and Perspectives Pre- and Post-NAFTA: The Case of Coffee from the Mexican State of Veracruz

Forrest Stegelin, Katia Romero, and Jack Houston

Mexico has a long history of coffee production. Mexican coffee is grown mainly in the South-Central to Southern regions of the country. Coffee from Coatepec and Veracruz is much different from Oaxacan Plumas, which are much different from the southernmost region of Chiapas bordering Guatemala. The state of Veracruz is located on the gulf side of the central mountain range and produces mostly lowland coffees, although coffees called Altura (high-grown) Coatepec have an excellent reputation. Other Veracruz coffees of note are Altura Orizaba and Altura Huatusco. Where coffee is concerned, higher always means better, and the high-grown coffees of Mexico are considered very high quality and are among the finest grown in the Americas. At one time, Mexican coffees were not among the world's greatest coffees because they often lacked quality uniformity, richness and body. Today's coffee-drinkers prefer their coffee black and like a light, acidic cup of coffee will like the best Mexican coffees. Starbucks is the largest U.S. marketer of Mexican coffee. This study examines whether the North American Free Trade Agreement (NAFTA) played a role in the change of the coffee industry.

Problems and Perspectives

With the initiation of NAFTA, agricultural strategies of the Mexican government changed. Along with the disappearance of national and international institutions supporting coffee production and an increasing international supply of the commodity, an uncertain environment for coffee producers arose. This risk impacted their technology, input use, and output production, and applied downward pressure on international and domestic prices received by these small-hatchure, limited-resource coffee producers, whose major problem is rural poverty. Technical efficiencies have improved post-NAFTA as a result of higher population density, higher altitude (better coffee quality), and a higher ratio of other cash crops to coffee; these technical efficiencies could improve further with improvements in public infrastructure (transportation/distribution network, markets and trade opportunities, promotion, operating and capitalization credit, modern/new technologies, labor) which could improve quality and differentiation of the coffee product.

Table 1. Veracruz Coffee Pre- and Post-NAFTA.

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<th>Pre-NAFTA</th>
<th>Post-NAFTA</th>
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<tr>
<td>Coffee production</td>
<td>4th largest producing state</td>
<td>2nd largest producing state</td>
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<tr>
<td>Land utilization</td>
<td>4th most planted crop</td>
<td>3rd most planted ag product</td>
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<td>Real price per metric ton</td>
<td>about 100,000 producers; approximately 192,000 hectares</td>
<td>about 67,000 landowners over 152,000 hectares</td>
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<td>Production regime</td>
<td>$27/mt</td>
<td>$14/mt (nearly 50% drop)</td>
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