Stock Market Reaction to USDA BSE Announcements

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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&W, KFC, Long John Silver, 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 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

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