

Pay no attention to what's behind the curtain: Producers should blame exchange rates not BSE for lost wealth

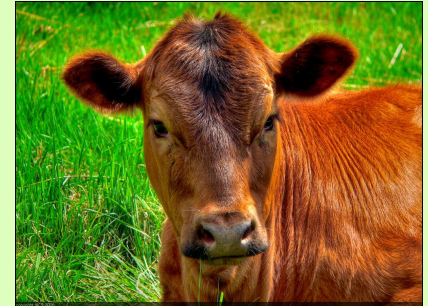
Brandon Schaufele, Zoya Komirenko and Jim Unterschultz
Department of Rural Economy, University of Alberta

BSE AND WEALTH: THE CRISIS

The BSE crisis had a large impact on the Canadian agricultural sector (see, Carlberg and Brewin, 2005, e.g.). Few studies have looked at the on-farm financial repercussions however. BSE was only one component of a volatile cattle sector. This research uses capital budgeting techniques and hedonic price models to examine the change in cow-calf producers' wealth over the period 2002 through 2007. Special attention is paid to the effects of an appreciating Canadian dollar and land values.

BSE AND WEALTH: THE MYTH

There is a myth that producer wealth still has not recovered from the BSE crisis (Ed. Journal, 2007). Exchange rates and land values remain "hiding behind the curtain".

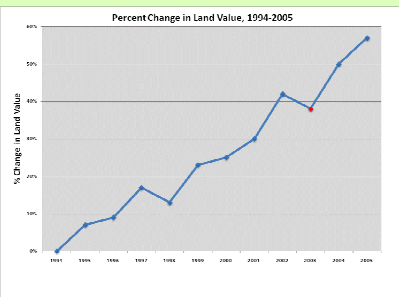


DATA

Model data are from several sources:

- Farm-survey data is from Alberta Agriculture and Rural Development's (AARD) AgriProfit\$ Regional Beef Cow/Calf Operation Profiles
- Cattle output prices are from Canfax (2002-2007)
- Prices for crop outputs are from AARD's Agricultural Input Monitoring System (2002-2007)
- Canadian-US exchange rate data are from the Bank of Canada (2002-2007)
- Land value data are from AARD and Agriculture Statistics Handbook (2006)
- Adjustments for border closures is from Marsh et al. (2005)

HEDONIC LAND-PRICE RESULTS



Land is the largest component of farmer wealth. Accounting for land value is imperative when assessing changes in farm equity. A hedonic model was estimated to predict changes in land value in different regions. The percent change in land value for 1994-2005 is given in the figure. In 2003, there was a statistically significant drop in

land prices. **The impact of the BSE crisis on land values was temporary however.** On average, agricultural land appreciates at a rate of 5% per year.

BSE AND WEALTH: THE FACTS

The effects of the BSE crisis on farmer wealth were temporary, lasting from 2003 to 2005. The appreciating Canadian dollar had a larger and more enduring impact on farm equity than did the BSE-related border closures. Constant exchange rates would have generated an additional 10.75% growth in equity over the 2002 to 2007 period, while open borders would have only yielded a farm equity increase of 0.65%. This implies that policies aimed at assisting producers' management of currency risk may be more important for safeguarding producer wealth than crisis relief programs.

Contact Info: brandon.schaufele@ualberta.ca, komirenk@ualberta.ca or jim.unterschultz@afhe.ualberta.ca

Department of Rural Economy, GSB 515, University of Alberta, Edmonton, Alberta, T6G 2H1

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CASH FLOW MODEL RESULTS

This research builds a whole-farm cash flow model – including both a cattle and crop enterprises – for a representative Albertan cow-calf operation. Cash flows are then "built-up" to an income statement and balance sheet.

Whole farm capital budgeting modeling procedure

Three scenarios are examined:

1. **Base case** – reflects actual change in producer wealth
2. **Constant exchange rates** – adjusts prices "as if" the Canadian-US exchange rate were constant
3. **Open borders** – adjusts prices "as if" the US border had not closed

Changes in land values are integrated into all three scenarios.

The figure on the right illustrates the percent change in model farm equity from 2002 to 2007. Wealth dips from 2003 to 2005, but there is a quick recovery. Fixed exchange rates (scenario 2) lead to an additional 10.75% equity growth over scenario 1, whereas open borders (scenario 3) saw farm equity increase by an additional 0.65%.

The appreciating Canadian dollar had a much greater impact on farm wealth than the border closures.

