

Impact of Mandatory Price Reporting on Hog Market Integration

The U.S. hog industry has experienced a host of structural changes and consolidation. A key facet of these adjustments has been a notable decline in the quantity of hogs sold in spot (cash) markets (Figure 1).¹ This decline raises a host of questions and concerns regarding the validity and industry representativeness of prices reported by the U.S. Department of Agriculture's Agricultural Marketing Service (USDA AMS).

Before April 2001, the hog prices USDA AMS released reflected prices voluntarily reported by industry participants. Starting in April 2001, following the Livestock Mandatory Price Reporting Act of 1999, all federally inspected pork plants that annually process more than 100,000 head are required to report daily prices, volumes, and terms of transaction details to USDA AMS.

This publication summarizes findings and implications from a broader study that examined whether mandatory price reporting influenced relationships among different spot markets for hogs.²

Methods

To examine the influence of mandatory price reporting on hog markets, relationships between four geographically separated cash markets were analyzed (Peoria, Ill.; St. Joseph, Mo.; St. Paul, Minn.; and Iowa-Southern Minnesota) using weekly average prices for 1992 through August 2009.

Statistical evaluations were conducted to examine if the relationship in spot prices in these four markets changed with introduction of mandatory price reporting. If mandatory price reporting enhances the availability of reliable price information, then markets would be expected to more fully adjust to price shocks in other locations after April 2001. This expectation is the main thing that was examined in this study.

Results and Implications

The estimated models and statistical evaluations reveal several expected and unexpected findings.

- 1 Additional industry background details are available in a related report regarding wholesale pork price reporting and associated industry concerns. This report is available at: www.agmanager.info/livestock/marketing/PorkPrice/default.asp
- 2 Additional related information on this study, including a corresponding journal article, is available at www.agmanager.info.

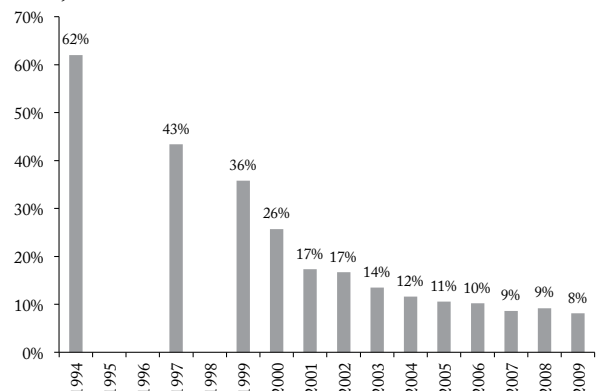
The relative role of the Iowa-Southern Minnesota price appears to have increased post- mandatory price reporting. More narrowly, prices in other markets (e.g. St. Joseph, MO) react faster to Iowa-Southern Minnesota price changes following mandatory price reporting.

Conversely, Iowa-Southern Minnesota prices adjust to changes in other locations more slowly following mandatory price reporting. This finding likely reflects two related issues that cannot be separated: 1) increased confidence in mandatorily reported Iowa-Southern Minnesota prices and 2) increased relative industry volume represented by Iowa-Southern Minnesota prices.

Broadly speaking, the finding of this study was that mandatory price reporting did not significantly influence long-run equilibrium relationships among the evaluated hog markets. Arguably the finding of significant cross-market, long-run relationships existing before mandatory price reporting's imposition underlies this finding — that is, the markets were already “reasonably reacting to each other.”

This finding and offered explanations, however, are made with an important caveat in mind. Namely the U.S. swine industry has experienced changes that cannot be entirely accounted for empirically by this study. Accordingly, this study does not suggest mandatory price reporting is unwarranted, as it did not fully identify how spot hog markets would have performed since April 2001 if mandatory price reporting were never implemented. In short, the findings should be cautiously viewed as an important, first assessment and additional work in the future is required.

Figure 1. Percentage of Hogs Purchased on Negotiated Cash Market, 1994-2009



Source: Grimes, G. and R. Plain. (2009). "US Hog Marketing Contract Study." Unpublished report, University of Missouri, Columbia, Mo.

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