Cattle Markets, Price Discovery, and Emerging Issues

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Assessing How Fed Cattle Pricing Alternatives Address Feeder and Packer Incentives

Ted C. Schroeder
Kansas State University
Department of Agricultural Economics

Brian K. Coffey
Kansas State University
Department of Agricultural Economics

Glynn T. Tonsor
Kansas State University
Department of Agricultural Economics

Introduction

Changes in the ways fed cattle are being purchased and valued through marketing agreements have occurred because of substantial economic incentives to improve vertical coordination and align value signals along the supply chain. Packers and feeders have forged marketing agreements because such agreements address supply chain coordination challenges more effectively than negotiated cash fed cattle trade. Incentives to adopt marketing agreements are multi-faceted, interconnected, and at least in part arise from the need to better meet customer demands. Structural changes in how fed cattle value is determined have resulted in thinly traded negotiated cash markets in some regions, raising concerns about the reliability of reported trade and the efficiency of cash market price discovery.

Tradeoffs associated with wide-spread adoption of marketing agreements displacing cash negotiated fed cattle trade are both numerous and complex. Private incentives of cattle feeders and beef packers to adopt marketing agreements are well documented and straightforward. However, there are also broader supply chain forces which encourage marketing agreements. Furthermore, externalities associated with widespread decline in cash negotiated trade can create adverse consequences associated with the transition to marketing agreements.

A stylized summary of the incentives and implications associated with various ways fed cattle are purchased is provided in Table 1, describing incentives from the cattle feeder perspective, and Table 2, describing incentives from the packer perspective. We compare Live and Dressed Negotiated (i.e., cash negotiated trade); Forward Contract; Negotiated Grid; and Formula separated into two alternative valuation methods of Marketing Agreement Non-Grid and Marketing Agreement Grid. The color coding used in the tables is based on a synthesis of past research, numerous informal discussions with industry participants, and our own assessment. Specific selection of colors in some cells entails some subjectivity, the overall implications we report across marketing methods are stark and, we argue, robust.

Cattle Feeder Incentives and Tradeoffs

Table 1 summarizes the incentives inherent in various fed cattle marketing mechanisms from the perspective of cattle feeders using a color-coded matrix. Red, yellow, and green shading in the table refers to relative effectiveness of each marketing method in addressing each itemized consideration, which are described in greater detail in the following paragraphs.

Cattle Pricing and Value Signals. There exists a long history of concern that fed cattle pricing mechanisms using cash negotiated methods (often referred to as average pricing) were insufficient at sending value signals and providing incentives to cattle feeders to improve fed cattle quality. These concerns led to adoption of value-based grid pricing of fed cattle. Variation in grid premiums and discounts across packers due to differentiated customer demands, coupled with varied cattle feeder comparative advantages, encouraged cattle feeders to target specific packer grids through marketing agreements.

Grid pricing is the main way value signals associated with quality, yield, and various differentiated branded programs are sent to cattle feeders. As such, the most effective cattle marketing methods to ensure that price differentials reflect quality is through use of grids. Negotiated grids and marketing agreements with grids are the most effective of the marketing methods used in the industry to directly link value with quality. Further, grid information sent back to cattle feeders to enable them to better manage feeder cattle procurement, feeding protocols, and cattle harvest timing created even greater value for cattle feeders, enhancing the incentive for them to enter into marketing agreements.

Growing incentives to continue to develop marketing agreements have arrived or are on the horizon. For example, various certification systems and brands have developed. Such programs require feeders to invest in genetics, upstream alliances, and production practices to consistently meet specifications. Marketing agreements help assure feeders financial rewards for incurring added costs associated with these practices. There is no such guarantee when selling specific cattle in the negotiated spot market. This point is immensely important to recognize as we consider the future implications of marketing agreements in the fed cattle and beef supply chain.

Marketing Cost, Flexibility, & Risk Management. Reduced costs and market access are prominent reasons cattle feeders enter into marketing agreements. Though marketing agreements reduce week-to-week marketing and price discovery costs and ensure market access, they reduce flexibility for the cattle feeder and packer. Negotiated cash trade enables producers to readily reject cattle purchase offers and, if leverage swings in their favor, to pursue more desirable terms of trade. When leverage is unfavorable for the cattle feeder, spot markets tend to have greater challenges in negotiating desirable outcomes. Cattle feeders who prefer greater independence, have comparative advantage for negotiating individual transactions, and value increased ability to accept or reject prevailing offers are more inclined to negotiate weekly trade on the spot market.

Market Information. Perhaps the single most common concern about not negotiating spot market prices regularly is the associated impact on market information. This concern has circulated across industry participant as well as policy making arenas for a long time and was a major reason Livestock Mandatory Reporting (LMR) was launched some 20 years ago. However, with the decline in negotiated cash market fed cattle trade, together with recently larger fed cattle supplies challenging packer slaughter capacity, focused effort on finding ways to “fix” this problem has again elevated.

Supply Chain Coordination. Established marketing agreements where both the supplier and buyer mutually benefit from the agreement creates strong business relationships that facilitate collaboration. This directly improves several dimensions of the supply chain. When a catastrophic event occurs, such as the Holcomb plant fire in August of 2019, those with established relationships are able to more effectively work together to mitigate the negative impacts. Because of the strong and lasting business relationship both the feeder and the packer have an incentive to work together to adjust timing, scheduling, logistics, and other coordination issues to continue serving downstream customer needs.[1]

Packer/Customer Incentives and Tradeoffs

Table 2 summarizes the incentives inherent in various fed cattle marketing mechanisms from the perspective of packers/customers. As in Table 1, red, yellow, and green shading in the table refers to relative effectiveness of each marketing method in addressing each itemized consideration, which are described in greater detail in the following paragraphs.

Meeting Beef Customer Demands. A host of factors influence beef packer ability to meet downstream customer demands. Many of these refer to specific product and service differentiation including Certifications, product Branding, Quality Assurances, Process Assurances, and Traceability. Having a known supply of cattle and known suppliers enables better quality control and production process assurances. These motives will continue to grow in importance in the future as consumer demands and expectations evolve. These considerations are most effectively accomplished through marketing agreements with known sources of fed cattle in the production pipeline.

Firm Operations. Marketing agreements reduce the cost of searching for and bidding on cattle. The agreements provide consistent, predictable slaughter quantities in a business where operating plants at capacity provides substantial per-unit cost savings. These incentives alone were enough to encourage packers to enter into marketing agreements even without the further supply chain enhancements noted above.

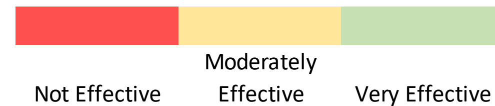
One tradeoff for packers using marketing agreements is reduced flexibility. If a packer wishes to increase slaughter volume significantly relative to existing marketing agreements, their main option is to use the negotiated cash market for sourcing. If, on the other hand, they wish to reduce slaughter volume, adhering to existing agreements may not allow it. As such, packers give up flexibility in cattle procurement when they enter into marketing agreements.

Enhanced vertical supply chain coordination among cattle producers, processors, and other participants is probably the most important benefit that has resulted from marketing agreements. Better buyer-supplier communication improves value signals, reduces costs, improves scheduling, enhances ability to resolve problems, and enables downstream alliances. These outcomes are all beef supply chain benefits associated with marketing agreements that ultimately benefit beef consumers.

[1] These sentiments were shared with us in personal confidential discussions with several industry participants.

Table 1. Relative Ability of Alternative Fed Cattle Marketing Methods to Address Cattle Feeder Considerations

	Cattle Feeder Considerations	Live Negotiated	Dressed Negotiated	Forward Contract	Negotiated Grid	Marketing Agreement Non-Grid	Marketing Agreement Grid
Cattle Pricing & Value Signals	Quality Premiums/Discounts	Not Effective	Not Effective	Not Effective	Very Effective	Not Effective	Very Effective
	Yield Grade Premiums/Discounts	Not Effective	Not Effective	Not Effective	Very Effective	Not Effective	Very Effective
	Dressed Weight Payment	Not Effective	Very Effective	Moderately Effective	Very Effective	Moderately Effective	Very Effective
	Access to Carcass Performance	Not Effective	Not Effective	Moderately Effective	Very Effective	Not Effective	Very Effective
	Branded / Certification Premiums	Not Effective	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective
Marketing Cost, Flexibility, & Risk Management	Price Discovery Cost	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective	Very Effective
	Secure Market Access	Not Effective	Not Effective	Very Effective	Not Effective	Very Effective	Very Effective
	Price Risk Management	Not Effective	Not Effective	Very Effective	Not Effective	Not Effective	Not Effective
	Delivery Timing	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective	Very Effective
	Leverage to Negotiate Weekly	Very Effective	Very Effective	Moderately Effective	Very Effective	Not Effective	Not Effective
	Flexibility to Accept/Reject Offers	Very Effective	Very Effective	Moderately Effective	Moderately Effective	Not Effective	Not Effective
Market Information	Contributes to Cash Price Discovery	Very Effective	Very Effective	Not Effective	Very Effective	Not Effective	Not Effective
Supply Chain Coordination	Establishes Relationship / Resolve Issues	Not Effective	Not Effective	Moderately Effective	Moderately Effective	Very Effective	Very Effective
	Enabling Downstream Alliances	Not Effective	Not Effective	Moderately Effective	Moderately Effective	Very Effective	Very Effective



Not Effective   Moderately Effective   Very Effective

Table 2. Relative Ability of Fed Cattle Marketing Methods Facilitate Meeting Beef Customer Preferences

	Beef Packer Considerations	Live Negotiated	Dressed Negotiated	Forward Contract	Negotiated Grid	Marketing Agreement Non-Grid	Marketing Agreement Grid
Meeting Beef Customer Demands	Certifications	Moderately Effective	Moderately Effective	Moderately Effective	Moderately Effective	Very Effective	Very Effective
	Branding	Not Effective	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective
	Quality Assurances	Not Effective	Not Effective	Not Effective	Very Effective	Not Effective	Very Effective
	Process Assurances	Not Effective	Not Effective	Not Effective	Moderately Effective	Very Effective	Very Effective
	Traceability	Not Effective	Not Effective	Moderately Effective	Moderately Effective	Very Effective	Very Effective
	Assured Sourcing	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective	Very Effective
	Facilitates Vertical Alliances	Not Effective	Not Effective	Moderately Effective	Moderately Effective	Very Effective	Very Effective
Firm Operations	Operating Efficiency	Not Effective	Not Effective	Moderately Effective	Not Effective	Very Effective	Very Effective
	Risk Management	Not Effective	Not Effective	Very Effective	Moderately Effective	Very Effective	Very Effective
	Flexibility	Very Effective	Very Effective	Not Effective	Very Effective	Not Effective	Not Effective