Cattle Feeder and Beef Packer Tradeoffs Across Live Cattle Marketing Methods[1]

Ted C. Schroeder, Brian K. Coffey, and Glynn T. Tonsor

September 20, 2021

This fact sheet is taken from the findings of the report “EFFECTIVE AND EFFICIENT CATTLE AND BEEF MARKET ALIGNMENT: PRICE AND VALUE DISCOVERY, DIVERGENT INCENTIVES, RISK MANAGEMENT, AND FUTURE PROSPECTS”, which was prepared for the U.S. Department of Agriculture Office of the Chief Economist and is available, in its entirety, at: https://www.agmanager.info/livestock-meat/marketing-extension-bulletins/marketing-strategies-and-livestock-pricing/effective.

---

[1] This research was supported in part by the U.S. Department of Agriculture, Office of the Chief Economist. The findings and conclusions in this report are those of the authors and should not be construed to represent any official USDA or U.S. Government determination or policy.

Marketing Live Cattle and Beef

The fed cattle and beef industry has experienced immense structural change over the past couple of decades and the velocity of change has accelerated in recent years. Evolving consumer demand for beef production assurances and product credence attributes; increasing demand for higher quality products; advancing beef processor product development and value-adding; growing product differentiation and branding; and expanding food service and export market demand have all contributed to structural change. Recently, drastic disruptions[2] have resulted in increased scrutiny of live cattle and beef marketing and markets. Specifically, there is renewed attention given to the methods used to price live cattle and heavy reliance on alternative marketing arrangements (AMA), which fall into the USDA Agricultural Marketing Service reporting category of "Formula Trade", and declining negotiated cash trade.

The recent market disruptions and associated industry reactions temporarily distracted the long-term pathway of the industry and brought heightened attention to trade-offs in the current industry structure, but they have not changed clear longer-term trends. (see here or here, for example). In this environment, it is important to consider the economic incentives which have driven the industry to evolve and the benefits that many along the supply chain continue to reap, even with the reality of black swan type short-run market disruptions. The purpose of this fact sheet is to present a concise view of how well major live cattle marketing methods meet the needs of feeders and packers and demonstrate how economic incentives have played a large role in the structural changes in the live cattle and beef markets.

A stylized summary of cattle feeder and beef packer incentives associated with various ways fed cattle are purchased is presented in two heat maps. The color coding used in the tables (red, yellow, and green shading refer to relative effectiveness of each marketing method in addressing each consideration) is based on a synthesis of past research, numerous informal discussions with industry participants, and our assessment. These are, admittedly somewhat subjective, but are based on years of academic research and industry engagement.

---

[2] Most notably, the August 2019 fire in the Tyson beef packing plan in Holcomb; KS and the various disruptions due to COVID-19 and related restrictions; and JBS cyber attacks.

Alignment of Marketing Methods with Cattle Feeder Considerations (Table 1)

Cattle Pricing and Value Signals

The upstream flow of attribute specific market information is often absent from live cattle marketing discussions. Grid pricing is the main way value signals associated with quality, yield, and various differentiated branded programs are sent to cattle feeders and, indirectly, all the way back to cow/calf producers. Grid information sent back to cattle feeders enables them to better manage feeder cattle procurement, feeding protocols, certification and assurance programs, and cattle harvest timing. Customized information feedback has created even greater value opportunities for cattle feeders to enter into marketing agreements.

Marketing Cost, Flexibility, & Risk Management

Avoiding the cost of weekly negotiation and failed negotiations was an early incentive to enter into AMAs. However, avoiding the cost and risk associated with relying on negotiation comes at the cost of reduced flexibility for cattle feeders. If leverage, defined here simply as the volume of fed cattle demanded by packers relative to harvest-ready fed cattle supply, swings in feeders' favor, they can utilize that leverage to pursue more desirable terms of trade on the spot market. Opportunities to take advantage of short-term leverage swings are largely non-existent in marketing agreements.

Market Information

Cash negotiated trade is reported by USDA AMS during the week a price is agreed upon. In contrast, formula trade price information is reported the week cattle are delivered to the packer and formula prices are often based on reported negotiated prices from one-to-two weeks earlier. As such, some industry participants are concerned formula trade does not contribute much new information to price discovery. Furthermore, because of how broadly the formula price category is defined and reported by USDA (i.e., it encompasses all trade that is not categorized into one of the other three reported categories), formula market information currently being reported is not highly informative. Concerns are compounded because formula trade, which represents 60% to70% of national slaughter, often relies on reported negotiated prices as a base price.

Supply Chain Coordination

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 enhances value signals, reduces costs, improves scheduling, facilitates ability to resolve problems, and better enables downstream alliances. These outcomes are all beef supply chain benefits associated with marketing agreements that directly benefit producers and ultimately beef consumers. These considerations become even more prevalent when feeders are targeting specific programs aimed at supplying food-away-from-home outlets, branded efforts, or export channels.

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	🟥	🟥	🟥	🟩	🟥	🟩
	Yield Grade Premiums/Discounts	🟥	🟥	🟥	🟩	🟥	🟩
	Dressed Weight Payment	🟥	🟩	🟨	🟩	🟨	🟩
	Access to Carcass Performance	🟥	🟥	🟨	🟩	🟥	🟩
	Branded / Certification Premiums	🟥	🟥	🟥	🟨	🟥	🟩
Marketing Cost, Flexibility, & Risk Management	Price Discovery Cost	🟥	🟥	🟨	🟥	🟩	🟩
	Secure Market Access	🟥	🟥	🟩	🟥	🟩	🟩
	Price Risk Management	🟥	🟥	🟩	🟥	🟥	🟥
	Delivery Timing	🟥	🟥	🟨	🟥	🟩	🟩
	Leverage to Negotiate Weekly	🟩	🟩	🟨	🟩	🟥	🟥
	Flexibility to Accept/Reject Offers	🟩	🟩	🟨	🟨	🟥	🟥
Market Information	Contributes to Cash Price Discovery	🟩	🟩	🟥	🟩	🟥	🟥
Supply Chain Coordination	Establishes Relationship / Resolve Issues	🟥	🟥	🟨	🟨	🟩	🟩
	Enabling Downstream Alliances	🟥	🟥	🟨	🟨	🟩	🟩

🟥	🟨	🟩
Not Effective	**Moderately Effective**	**Very Effective**

Alignment of Marketing Methods with Beef Packer and Customer Considerations (Table 2)

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. Predictable supply is essential for product branding whether at retail or food service. Supply chain management incentives related to certification and branding provide incentives to use marketing agreements. This has become more important as retail sellers increasingly seek to price beef farther in advance of delivery.

Firm Operations

AMAs provide consistent, predictable slaughter quantities in a business where operating plants at capacity provides substantial per-unit cost savings. However, a tradeoff for packers that use marketing agreements is reduced flexibility. If a packer wishes to substantially increase or decrease slaughter volume, relying on AMAs will make that very difficult. AMAs are better, though, at managing downstream supply risk of meeting forward commitments of customers. Consistently meeting those agreements is essential to maintain vertical relationships.

Concluding Thoughts

The topic of AMAs in live cattle and beef markets is contentious and widely debated. As with any marketing choice, there are trade-offs associated with using, or not using, AMAs. This short fact sheet is not meant to settle all issues surrounding AMAs but provides a broad picture of why their increased use is consistent with rational economic and risk management behavior of those in various points along the supply chain. As AMAs continue to play a key role in live cattle and beef markets, understanding their long-term benefits and costs and how AMAs now impact the entire live cattle and beef supply chain is essential for policy makers and industry stakeholders.

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	🟨	🟨	🟨	🟨	🟩	🟩
	Branding	🟥	🟥	🟥	🟨	🟥	🟩
	Quality Assurances	🟥	🟥	🟥	🟩	🟥	🟩
	Process Assurances	🟥	🟥	🟥	🟨	🟩	🟩
	Traceability	🟥	🟥	🟨	🟨	🟩	🟩
	Assured Sourcing	🟥	🟥	🟨	🟥	🟩	🟩
	Facilitates Vertical Alliances	🟥	🟥	🟨	🟨	🟩	🟩
Firm Operations	Operating Efficiency	🟥	🟥	🟨	🟥	🟩	🟩
	Risk Management	🟥	🟥	🟩	🟨	🟩	🟩
	Flexibility	🟩	🟩	🟥	🟩	🟥	🟥

🟥	🟨	🟩
Not Effective	**Moderately Effective**	**Very Effective**