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The Role and Implications of Negotiation in Fed Cattle Transactions

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THE ROLE AND IMPLICATIONS OF NEGOTIATION IN FED CATTLE TRANSACTIONS

by

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NEGOTIATION IN FED CATTLE TRANSACTIONS

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Within the past three decades, a significant evolution has occurred in how fed cattle are bought and sold. Driven by changes in the quality of beef and consumer health preferences, the beef industry began to advocate for "value-based marketing," resulting in the development of grid pricing and eventually formula transactions. Alternative marketing arrangements (AMAs) have become the predominant method used for the sale of fed cattle, ultimately resulting in fewer transactions in the negotiated cash market. Such market conditions have recently reignited concerns among industry stakeholders about potentially uncompetitive outcomes for beef producers, particularly after the occurrence of sequential Black Swan events which resulted in unprecedented price volatility. To improve market outcomes, attention has been directed toward improving market transparency and price discovery. Legislative and executive initiatives aimed towards improving market, or price, transparency have resulted in the establishment of new programs and reports. Alternatively, proposed legislative initiatives aimed at generating more robust price discovery involve the enactment of regionally mandated minimums. A critical part of negotiation is the bid-and-ask process which occurs between a feedlot operator and a meat processor representative. To improve our understanding of

bidding and related price discovery mechanisms, a survey of feedlot operators, as identified through the Nebraska Department of Agriculture's 2019-2020 Cattle Feeder's Directory was conducted. The purpose of this survey was to identify topics that are important regarding the negotiation process to industry stakeholders and to establish a framework for these concepts to be tested in future research projects.

Chapter I: Introduction

Beef production is a complex system characterized by its unique industry structure. Fed cattle producers attempt to maximize profit given costs due to feed, labor, cattle genetics, health and welfare, and weather conditions. For the feedlot sector, this would be fed cattle, purchased as feeders, fed until an adequate market weight is attained, and marketed to a packing facility where the animal will be harvested and further processed into a product fit for consumption. This final step is critically important to the success of the business and can be a defining factor within one's bottom line. In a perfectly competitive market, it is assumed that fed cattle producers are "price takers" (i.e. cannot influence the market price).

The purchase of slaughter-ready cattle by packing facilities in today's fed cattle market is predominantly characterized by four types of transactions. These include (1) negotiated cash, (2) negotiated grid, (3) formula trade, and (4) forward contract. The utilization of such purchase types varies significantly between cattle-feeding regions. Negotiated cash transactions are not predominant within every region but have received significant nationwide attention within the past four years. Consequently, recent volatility within the fed cattle market has generated new industry concerns about competition as implicated by thinning cash trade and consolidation within the packing sector. The recurring concern among industry stakeholders was reignited by sequential Black Swan events impacting the beef packing sector in 2019 and 2020. A "Black Swan event" is a label that is used to describe an unpredictable occurrence that subsequently results in unprecedented market conditions and potentially severe consequences for industry stakeholders. Specifically, the fire which occurred at the Tyson Fresh Meats beef processing facility in Holcomb, Kansas and the global COVID-19 pandemic gave rise to increased market volatility and lower cash prices. These events ultimately resulted in impacts that rippled throughout each sector of the beef industry.

These were the critical moments in which many participants in the industry called for improved market transparency and called more robust price discovery to generate more competitive outcomes for beef producers. Industry stakeholders drew greater attention to the current levels of negotiated cash trade and highlighted thinning cash markets as an area of emphasis moving forward. Negotiated cash and negotiated grid transactions play an important role in contributing to price discovery within a market. The interaction between the feedlot and packing plant to arrive at a transaction price is a key part of generating new information within a market through price discovery. Utilizing the current knowledge that they have about supply and demand, either party can ask or bid a price as to what they believe to be the value of the cattle given the status of the current market. This is very different than cattle which are sold through an Alternative Marketing Arrangement (AMA), such as through a formula. Utilizing a non-negotiated, external base price within a formula transaction may result in a final sale price which is not necessarily representative of current supply and demand within the market.

As a result, several legislative and executive initiatives have sought to improve transparency within the market through the publication of new reports and the establishment of a new pilot program. Additionally, several legislative proposals have taken an alternative approach to addressing competition. The objective of initiating regionally mandated minimums is to generate stronger price discovery by requiring a minimum specified level of negotiated cash and negotiated grid transactions for fed cattle.

Many resources have been devoted to understanding these issues further and evaluating solutions, but relatively minimal attention has been given to understanding the transaction from the perspective of the feedlot, or supplier within the market. The interaction between the buyer and the seller, or lack thereof, serves as a critical source of information within the market. The act of identifying and settling upon a transaction price for the negotiated sale of a good generates price discovery, an economic abstraction that is vital to the operation of a market with less-than-perfect information. To better understand the bidding process and its role within the market, we must first examine the motivations and implications which drive negotiated trade. To identify and frame the issues for more sophisticated analysis, the latter portion of this thesis elaborates on a survey conducted amongst the general population of feedlot operators within the state of Nebraska. The purpose of this survey was to gain a stronger understanding of their perspective on bidding within a negotiation, and ultimately competition within the market.

Additionally, it is important to distinguish between price discovery and price determination. Discovery is the micro-level perspective of transaction price mechanics while determination is the actual interaction between aggregate supply and demand resulting in the identification of a price level within a particular market. Given the industry concern regarding the declining number of negotiated cash transactions and its impact on market competition, the objective of this paper will be to first provide a historical perspective of transaction types within the fed cattle market, followed by a discussion of price discovery and its implications, and the current policy initiatives which have been enacted and proposed to address market transparency and price discovery. In addition, we will explore the topic of negotiation further by focusing on the concept of bidding through an evaluation of survey responses collected from industry stakeholders.

Chapter II: Background on Thinning Cash Trade

Just as any industry evolves with time, the beef industry has undergone significant restructuring and reorganization. Arguably the most significant change occurred three decades prior when the industry began to advocate for "value-based marketing." These efforts were initiated in response to a series of market events that first began with a staggering decline in beef demand throughout the 1980s and 1990s. Shifts in retail beef demand were driven by changes in the consumer's attitude toward red meat consumption. Following the release of the 1977 recommendation, "Dietary Goals for the American People," by the U.S. Senate Select Committee on Nutrition and Human Needs, the public renewed their focus on the consumption of excess fat within the diet (An Evolution of Lean Beef, 2014). At the time, the industry was marketing beef which contained excess quantities of fat which drove consumers to choose leaner alternatives, such as chicken or turkey. This eventually resulted in a 33 percent loss of beef's market share shifting to other proteins (Fausti et al., 2008). Having recognized this change, the industry responded by selecting leaner animals throughout every segment of the beef value chain, processors began to closely trim beef cuts, and supermarkets and restaurants offered consumers a larger quantity of lean options (An Evolution of Lean Beef, 2014). However, as beef became leaner it did so with a reduction in intramuscular fat, and ultimately a loss of flavor. As consumer preferences continued to evolve, the beef industry searched for ways to incentivize the integration of fat back into beef to improve quality, flavor, and consumer satisfaction. Before the 1990's fed cattle were bought and sold solely based on the average (Peel & Anderson, 2021). Given that most producers received only the average price for each of their animals, there was limited value allocated to differentiate higher-quality cattle from those of lower quality. “Average pricing distorts the transmission of market information to producers about the true market value of carcass attributes” …which “contributes to production inefficiencies that result in inconsistent product quality” and the “failure to provide consumers with beef products having a level of quality they demand” (Fausti et al., 2008, pp. 1-2). With no market-based incentives to encourage producers to make improvements to the cattle within the beef production chain, beef continued to lose its competitive edge in the domestic protein market (see Figure 1). To address these concerns, the industry shifted away from selling cattle solely on averages and transitioned into utilizing other value-based transaction types.

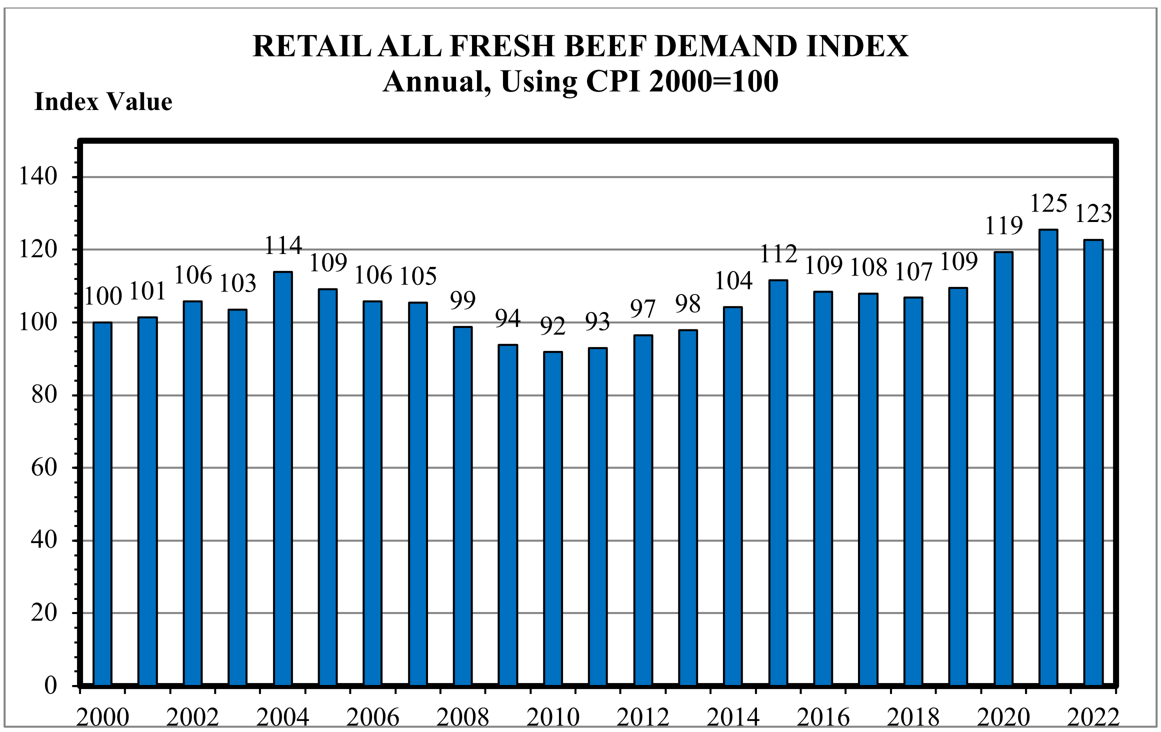

Figure 1. U.S. Consumer Retail Beef Demand, 2000-2022
Source: LMIC (2023)

Negotiated Grid Transactions

Grid pricing was developed to better the quality and consistency of beef being produced in the United States. Rather than marketing an entire pen of fed cattle for one average price, as was done in previous decades, a grid-based transaction was established for each animal. Each cattle carcass is assessed using the United States Department of Agriculture's (USDA) Quality and Yield grade standards following harvest but before further processing within the packing plant. Cattle that receive a quality grade of USDA Choice, yield grade three, and hang a carcass that is between 550 and 900 pounds are typically considered to be the "$0.00" ($/hundredweight) base quality and yield grade. Premiums and discounts based on deviations from the base quality and yield grade add to or subtract from the base price and vary between packers. Schroeder et al. found that the premiums and discounts present in grids were mostly based on plant averages, wholesale price/value spreads, and negotiated values (1998). Grid values that resemble plant averages are related to the quality of cattle being delivered to a specific plant whereas wholesale price spreads demonstrate the conditions of supply and demand for boxed beef (Ward et al., 1999).

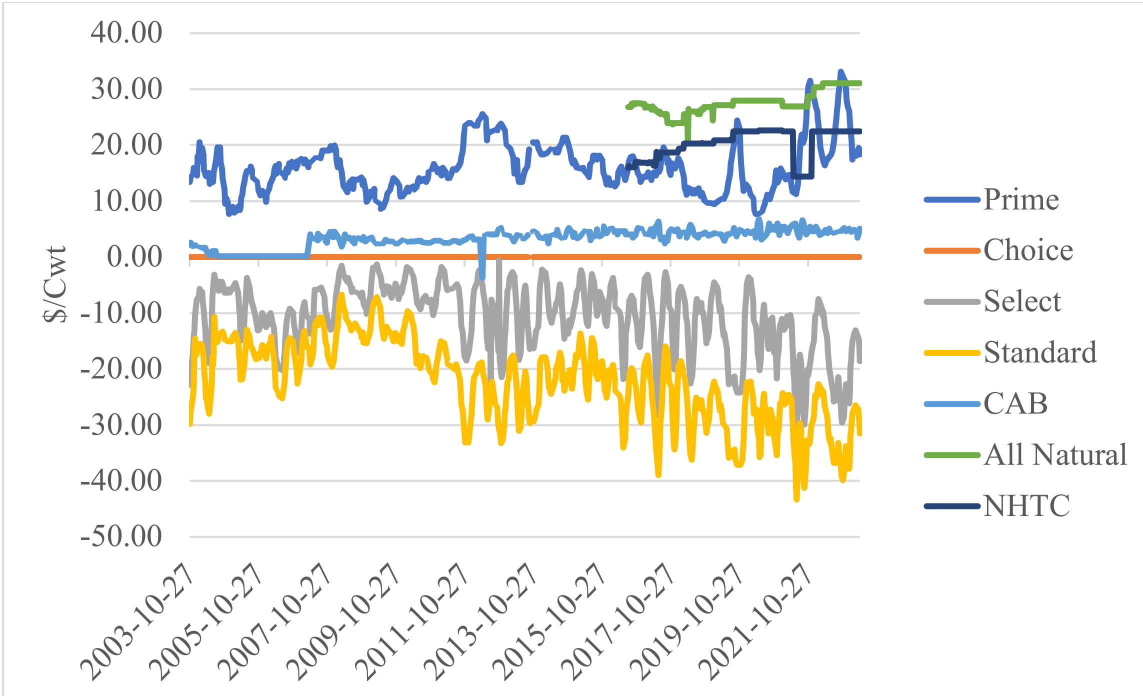

Figure 2. Grid Premiums and Discounts based on Quality Grade, 2003-2023
Source: USDA-AMS (2023)

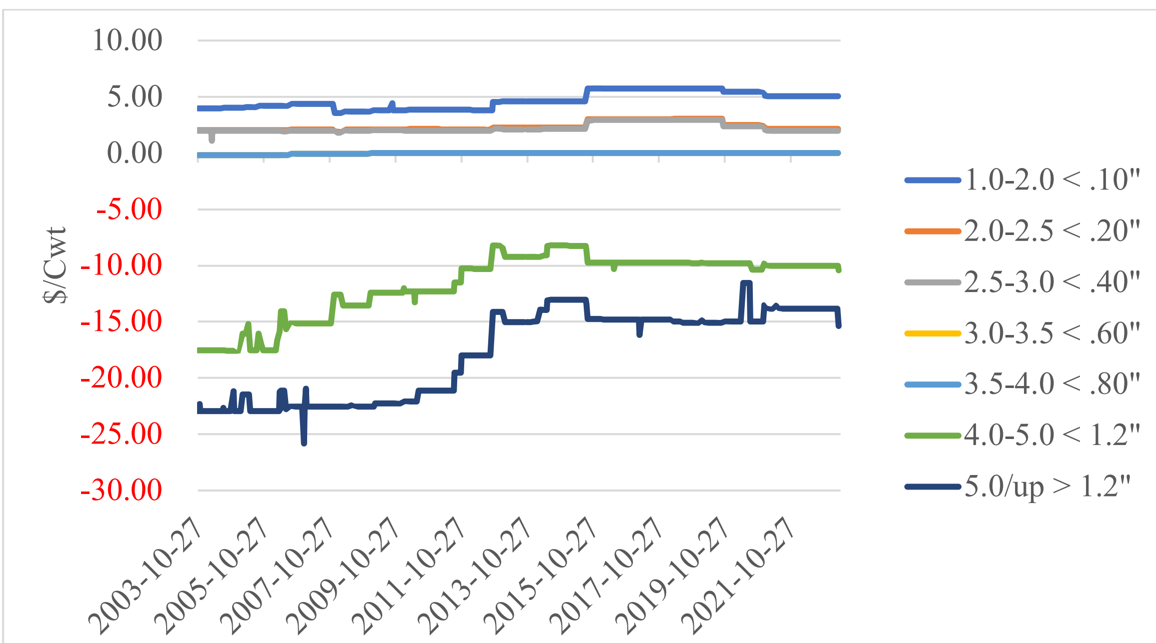

Figure 3. Grid Premiums and Discounts based on Yield Grade, 2003-2023.
Source: USDA-AMS (2023)

Grids must utilize a base price as the foundation of the transaction in which premiums and discounts are applied. Base prices can be determined using a plant’s average price for the week before or the week of slaughter, specific market reports, a boxed beef cutout value, a futures market price, or a negotiated price (Schroeder et al., 1998). Establishing a base price through negotiation (i.e. negotiated grid) between the feedlot operator and packer representative generates new market information and contributes to price discovery. The use of a non-negotiated, external base price classifies a grid transaction as a formula. These methods for establishing the base price do not create new market information and have important implications for price discovery and accuracy (Ward et al., 1999).

Formula Transactions

A significant portion of market participants found that the transaction cost associated with continually negotiating a base price created transaction costs for both participating parties. While maintaining the initiative to produce more uniform, higher-quality cattle, the industry moved to incorporate value-based pricing into other transaction types. Formula pricing emerged but differs from negotiated transactions in that a formula transaction is based on external price information. Differentiation between formulas results from the source of the base price. Examples of external prices include live or carcass weight cash market prices, futures market prices, or wholesale beef market prices (Ward et al., 1999). The base price in a formula sale is not negotiated between the buyer and the seller. Variation in external price sources between formulas has important implications regarding the formula price method, as well as impacts on other markets (Ward et al., 1999). The utilization of external reference prices from a market that is thinly traded can reduce the accuracy of such transactions in reflecting true market conditions (Ward et al., 2017).

Formula pricing also provides opportunities to gain value for attributes that are unrelated to production. These can include the time of delivery to the packing facility, the number of cattle marketed, or related production efficiencies. While formula pricing can offer benefits to both the buyer and seller, it is important to note that the use of formula pricing does not generate price discovery within the market given the use of an external, non-negotiated base price.

Formula transactions are distinguished from grid transactions in the way the base price is established. In a grid transaction, the base price may be negotiated between either party or may be established through a formula, as previously discussed. Formula transactions rely on a base price that has been discovered through an external source. In essence, “formula pricing is not necessarily grid pricing and grid pricing does not necessarily involve formula pricing” (Ward et al., 1999, p. 4). The purpose of grid pricing is to better associate price with quality. Producers who market higher-quality carcasses are rewarded through grid premiums while producers who market lower-quality carcasses are penalized through grid discounts (Ward et al., 1999). Grid transactions within the fed cattle market have had an impact on improving the quality and consistency of beef produced within our domestic supply chain. For example, the proportion of cattle classified as USDA Choice or USDA Prime has significantly increased over time (see Figure 4).

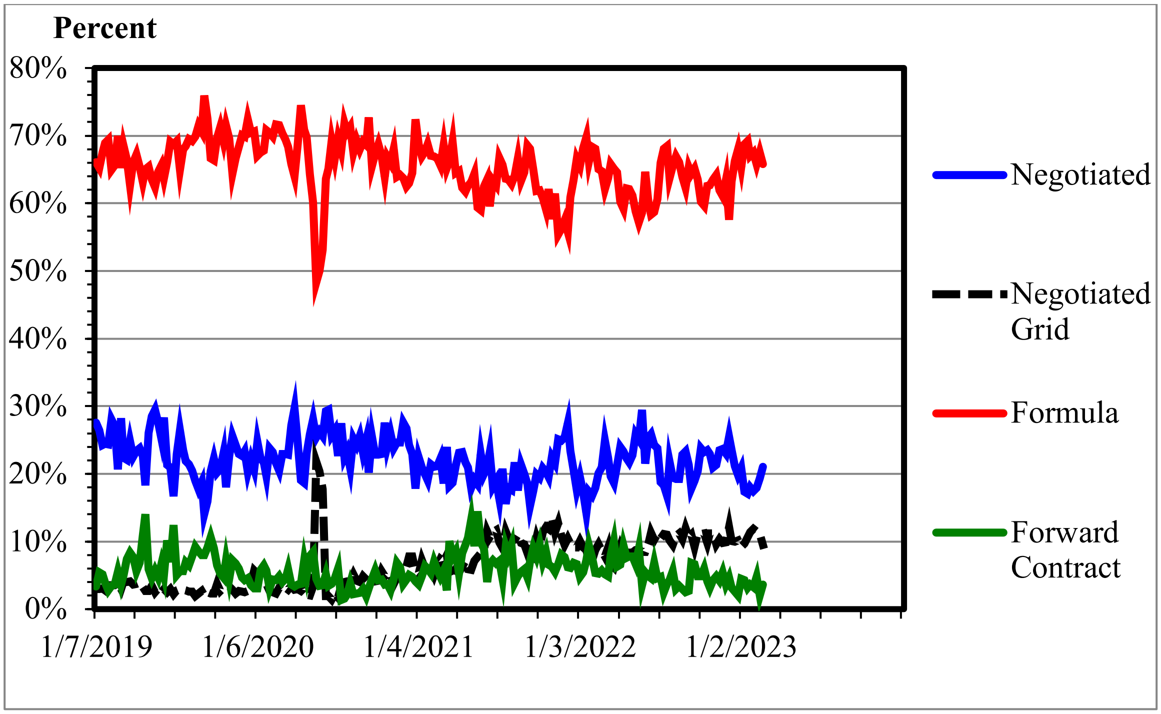

Figure 4. National Steers/Heifers Sold by Marketing Method, 2019-2023.
Source: USDA-AMS (2023)

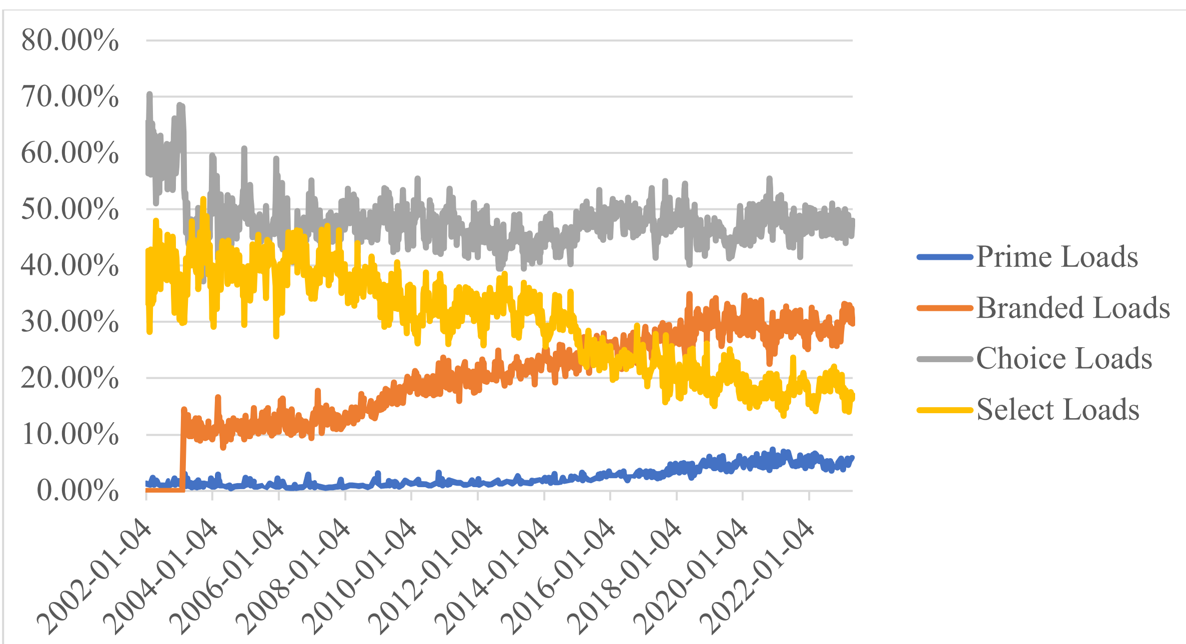

Figure 5. Percent of Loads by Quality Grade, 2003-2023.
Source: USDA-AMS (2023)

Impact of Alternative Marketing Arrangements (AMAs): Past and Present

Non-negotiated grid, formula, and forward contract transactions, referred to more formally as Alternative Marketing Arrangements (AMAs), provide an additional incentive to producers in their ability to eliminate or significantly reduce the risk associated with conducting negotiations. Early in the 2000s, as AMAs increased their foothold within the fed cattle market, the industry began to raise concerns about "captive supplies." "Captive supply" is a term that was first coined within a USDA Grain Inspection Packers and Stockyards Administration (GIPSA) publication which refers to cattle that have been marketed via an AMA to a packer and are within their control (Koontz, 2022). Although this terminology may be slightly inaccurate given that "feedlots determine the week the animals will be slaughtered and the packer only then determines the day of the week," such industry concern prompted the initiation of Livestock Mandatory Price Reporting (LMPR) (Koontz, 2022). Made possible through the passage of the Livestock Mandatory Reporting Act of 1999, LMPR was intended to encourage competition within various markets by generating efficiency through more accurate and readily available information for market participants. As time has passed, price reporting has been beneficial in providing price transparency within the fed cattle market, pushing competition towards a theoretically perfect outcome, which ultimately results in a more efficient allocation of resources. However, price reporting is not without its limitations.

The quantity of alternative marketing arrangements as a proportion of all fed cattle transactions currently occurring within today's market remains a steadfast concern among industry stakeholders. These concerns were further accelerated following dual

Black Swan events. On August 9, 2019, a fire occurred at the Tyson Fresh Meats packing facility in Holcomb, Kansas. At the time, this facility was the second-largest beef processing plant in the United States. accounting for approximately six percent of the nation's total daily beef slaughter capacity (Dennis, 2020). This unprecedented loss in slaughter capacity resulted in record-setting retail beef prices and a historical decrease in the fed cattle market price. Shortly thereafter on March 11, 2020, the World Health Organization declared the COVID-19 pandemic in response to the global spread of the SARS-CoV-2 virus. Subsequent safety restrictions and guidelines were initiated, and nationwide shutdowns ensued. The spread of COVID-19 amongst packing plant workers temporarily closed many processing facilities, significantly decreasing beef production. This was marked by a 36 percent reduction in weekly beef animal slaughter equating to nearly 245,000 head (USDA-AMS, 2020). Once again, retail beef prices climbed to record levels, leaving fed cattle prices at dramatically low marks. The Holcomb plant fire and the global COVID-19 pandemic sent shockwaves throughout each sector of the industry. It was at both of these points in time that the price spreads between the boxed beef cutout and fed cattle market values reached historically high levels. This created a sense of uneasiness within the beef industry regarding the viability of price discovery within the fed cattle market, drawing sharper attention to thinning negotiated trade, as derived from a reduction in cash transactions within the market.

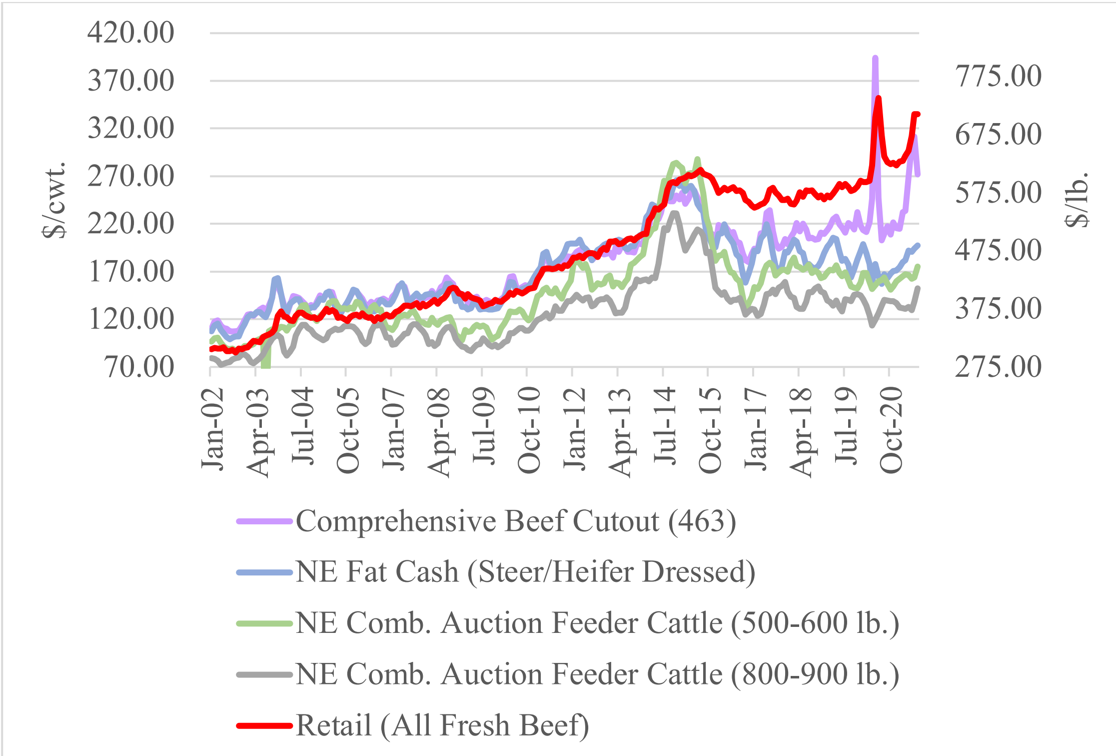

Figure 6. Price spreads between boxed beef, fed cattle, and feeder cattle in Nebraska, 2003-2021.
Source: USDA-AMS (2023), authors' calculations

Alternative Causes of a Thinning Market

As demonstrated in an earlier figure, the volume of negotiated or cash transactions occurring for the exchange of fed cattle between a producer and packing facility has declined significantly within the past 20 years. A thinning market is not necessarily a problem if it is representative of desirable outcomes in market development. The status of the current market provides evidence of differentiation that has occurred, particularly in regional fed cattle markets (Peel et al., 2020). Each regional market possesses unique characteristics related to, but not limited to, the relative size of feeding operations, the rate of turnover in these operations, and varying quality and yield grades between regions (Peel et al., 2020). For example, the feeding region encompassed by Texas, Oklahoma, and New Mexico places greater emphasis on yield grade, in comparison to that of other feeding regions, as demonstrated through corresponding price and carcass data. However, the transition from average-based pricing to value-based pricing has played an important role in developing these characteristics between regions.

Implications of a Thinning Market on Price Discovery

Regardless of how the thinning market has developed, the reduction in negotiated cash transactions has an important implication relating to price discovery and the ultimate value of market prices to the industry. Price discovery, as discussed earlier, is an independent, but related concept to that of price determination. Price discovery is generally concerned with the mechanics in which an individual transaction price is established, providing a micro-level perspective of equilibrium prices within the market (Peel et al., 2020). Improvements in price discovery assist in making market prices more efficient (Anderson et al., 2021). Efficiency implies that a market reflects all the information that is currently available in a timely fashion regarding supply and demand conditions (Anderson et al., 2021).

Price discovery is generally viewed as a “public good.” Given its consideration as a public good, the information generated through price discovery is available to all participants within the market and its use is not excludable. This information, in addition to publicly revealed prices, is the mechanism by which economic resources are allocated and today’s fed cattle market operates. Utilizing the knowledge that either party has about current supply and demand, the act of negotiating a transaction price contributes to price discovery within the market. Given that every market participant lacks perfect information, the bid and ask prices identified by the buyer and the seller, respectively, will vary around the market equilibrium price throughout the price discovery process

(Anderson et al., 2021). The actual market price and quantity (price determination) will fall among the high and low prices estimated by market participants (Anderson et al., 2021).

However, those who choose to engage in this type of trade face additional risks posed by the possibility of negotiation failure and also incur additional transaction costs and higher fixed costs (Peel et al., 2020). To avoid the additional risk and cost, market participants began to rely more heavily on the use of AMAs, particularly formula transactions for the sale of their fed cattle. Using a non-negotiated, external base price, these types of transactions capitalize on the information generated through negotiated sales while avoiding the associated costs, and contribute very little, if anything to additional price discovery. As cash markets have thinned, formula transactions have become contingent upon negotiated prices which reflect fewer underlying sales (Anderson et al., 2021).

As a result, the ultimate concern is the impact that thin trade has on price discovery. More specifically, does the current level of negotiated cash trade within the market provide adequate price discovery to facilitate competitive market outcomes through appropriate resource allocation within the beef industry (Peel et al., 2020). Peel et al. outline three issues that can arise from a thin market: the current market price may no longer reflect the true supply and demand conditions within the market, prices may become relatively more volatile, and there may be greater incentives for manipulation within the market (2020). However, stakeholder concern regarding the condition of the market will reach its peak as prices become a less reliable guide to value, implying that they no longer have merit in producing a competitive market outcome. It will be at this point that the market will no longer represent the cattle feeding industry or its underlying supply and demand, thus, begging the question of how thin is too thin regarding negotiated trade.

Significant time has been spent evaluating this question through empirical research; however, there has been no work that has documented a potential issue with the current condition of the market (Anderson et al., 2021). Although the volume of negotiated transactions has declined dramatically, Anderson et al. indicated that there has been no evidence to suggest a negative impact on price discovery within the fed cattle market (2021). However, there are challenges associated with identifying and evaluating this type of problem. The first challenge is that defining the level at which a market becomes “too thin” is very difficult. Other markets such as the pork industry demonstrate that relatively few negotiated transactions are necessary to maintain efficiency "as long as negotiated transactions are representative of the market as a whole” (Anderson et al., 2021, p. 8). The second challenge arises with the size and scope of current packing facilities. Given the economic incentives associated with operating a packing plant at scale, packers are willing to offer reasonably fair prices to ensure optimal throughput for their plants in the long run (Anderson et al., 2021). Although Anderson et al. suggests markets function appropriately, stakeholders remain concerned about market outcomes and continue to search for alternative solutions. That includes those related to market transparency and price reporting, the next topic addressed in this discussion of fed cattle market pricing.

Chapter III: Policy Initiatives Regarding Market Transparency and Price Discovery

As the fed cattle market has evolved, the use of AMAs has become more widespread throughout each reporting region, as previously discussed. Having noticed the changes occurring within their industry, beef producers have raised concerns about thinning trade and the resulting market volatility which has been further accelerated by stresses to supply and demand. Emphasizing two contrasting policy approaches, the industry has called on the federal government to take action in the creation of a fairer and more competitive marketplace. The first alternative addresses transparency and the need to provide market participants with improved information to better their insight into the status of supply and demand, which would ultimately allow for more well-informed decision-making within the market. Several legislative and executive measures have resulted in the enactment of a pilot program, as well as the publication of new market reports. The information provided through these initiatives is readily available and can be accessed by stakeholders at any time.

In contrast, the latter approach focuses on generating new information in the marketplace via price discovery as an alternative to improving competition. Several legislative initiatives within recent years have emphasized the establishment of regionally mandated minimums of negotiated trade within the fed cattle market. Such legislative initiatives have been met with significant political turmoil among beef industry stakeholders; however, none of the proposals have moved beyond their preliminary stages. Although different from the initiatives to improve market transparency, these approaches eventually work in conjunction with one another.

Cattle Contracts Library Pilot Program

An example of a legislative initiative passed by Congress in 2022 was contained in the Consolidated Appropriations Act. This legislation prompted USDA's Agricultural Marketing Service (AMS) to create a Cattle Contracts Library Pilot Program to provide aggregate information about the contractual agreements which have been made for the exchange of fed cattle. The information provided within this report focuses on the base price, its source, and any adjustments, as well as contract specifications, premiums/discounts, and the volumes associated with these trades. This data has been made available to enhance transparency within the market and provide improved price signals to producers concerning market conditions.

National Daily Direct Formula Base Cattle

With similar intent, USDA's AMS began publishing two new reports in the year prior in response to President Biden's Executive Order 14036 on Promoting Competition in the American Economy. The first report, entitled "National Daily Direct Formula Base Cattle" became active on August 9th, 2022. This report provides data on the base prices received within the formula and forward contract transactions, classified in reported quality categories for steers and heifers, as well as for regional reporting regions. These reports, published on a daily, weekly, and monthly basis contribute to improved price transparency within the fed cattle market. The comprehensive national data made available through these reports allow market "stakeholders to see the correlation between the negotiated trade and reported formula base prices, as well as the aggregated values being paid as premiums and discounts" (Schlecht, 2021).

National Weekly Cattle Net Price Distribution Report

The second report developed from the same executive order, referred to as the “National Weekly Cattle Net Price Distribution” became active on August 10th, 2022. This report is oriented towards providing national data focused more on volume and its relation to price dispersions for a given transaction method. The National Weekly Cattle Net Price Distribution report provides data on the volume of cattle sold across the weekly weighted average price for negotiated, negotiated grid, formula, and forward contract transactions. Before the release of this report, participants within the market speculated about the volume of cattle which were being traded on either end of the price spread (Schlecht, 2021). This report also aims to improve price transparency within the fed cattle market for each purchase type but does so with a significant advantage. By reporting the volumes within two-dollar price increments, USDA’s AMS retains confidentiality for participating firms.

In the presence of a thinly traded negotiated cash market, as previously discussed, a lack of price transparency can contribute to further ambiguity in the competitive space. In such conditions, there is a greater incentive for firms to engage in strategic behavior resulting in an unfair advantage within the market (Dennis & Lubben, 2022). Given that most transactions that occur for the exchange of fed cattle are contract and formula-based, the negotiations for these sales are private, and the public reporting of specifications and prices are not mandatory, thus limiting the amount of information available to market participants (Dennis & Lubben, 2022). Although several efforts have already been initiated, there is always potential to improve price transparency through the type of information which is made available to market participants through Livestock

Mandatory Reporting. As the industry continues to evolve and markets adjust accordingly, the need for reliable and prompt information is imperative. As the economic landscape of the beef industry changes, so does the knowledge which is needed to ensure market efficiency and effective resource allocation. On June 23rd, 2021, in his testimony before the United States Senate Committee on Agriculture, Nutrition, and Forestry, Dr. Glynn Tonsor of Kansas State University identified several opportunities to make changes to reported market information, all of which fall within the boundaries of confidentiality protocols and the raw data which is obtained through Livestock Mandatory Reporting (LMR). These include reporting percentiles to increase the information content of reports, removing forward contract data from weekly fed cattle reports, aggregating some categories to increase reporting frequency, altering, or merging regions to improve information quality or increase the volumes reported, reporting price information using hedonic modeling to generate new information, and adjusting the collection of raw LMR data (Examining Markets, Transparency, and Prices, 2021). Dr. Tonsor noted that the implementation of such alternatives must first be accompanied by a thorough evaluation of their feasibility and the potential value they will generate regarding reporting frequency and the quality of information (Examining Markets, Transparency, and Prices, 2021).

Mandated Minimums

Shifting the discussion towards price discovery, the aforementioned Black Swan events which occurred in August of 2019 and March of 2020 were the initial spark that reignited such legislative efforts. Within the current legislative session, Senator Deb Fischer of Nebraska has reintroduced her cattle marketing bill entitled the Cattle Price Discovery and Transparency Act of 2023. Currently, this measure remains a proposal and has not progressed within the federal legislative framework. However, if passed, this bill would prompt the Secretary of Agriculture to establish mandatory minimums for five to seven regions requiring covered packers within those areas to purchase a determined quantity of fed cattle on a negotiated or negotiated grid basis and be delivered within a seven to 30-day period.

To increase the quantity of fed cattle that are sold via negotiated transactions, the goal of this bill is to improve price discovery within the market through more bid-and-ask sales. It is the opinion of some stakeholders within the industry that these proposed regulatory additions to the fed cattle market will create a more competitive outcome for market participants, as well as for others within the beef production chain. The topic of mandated minimums has resulted in significant political polarization within the beef industry and is the reason that this bill and others in the past have not moved beyond their preliminary stages.

Chapter IV: Survey of Feedlot Perceptions of Negotiated Cash Trade

A survey of feedlot operators in the state of Nebraska provides insight into the issues currently impacting the fed cattle market.

Methods

Utilizing the 2019-2020 Cattle Feeders Directory as compiled by the Nebraska Department of Agriculture, we identified ten feedlot operators at random to survey via phone conversation. Survey participants were identified by the region in which they are located, as designated by their Directory listing. The Nebraska Department of Agriculture designates five cattle-feeding regions within the state of Nebraska: Panhandle, North Central, Northeast, South Central, and Southeast (see Figure 7).

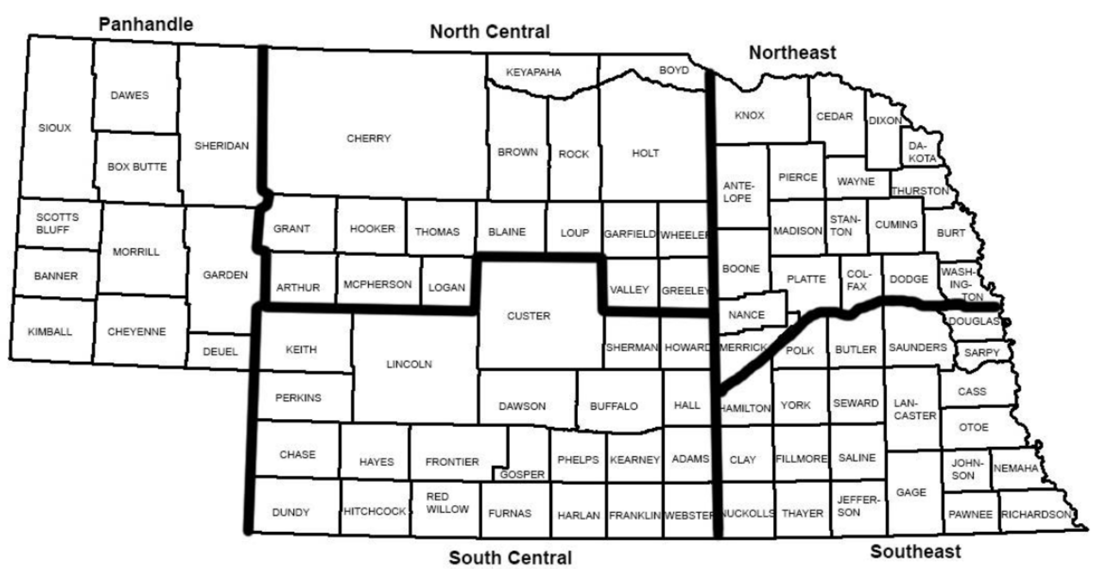

Figure 7. 2019-2020 Cattle Feeders Directory Map
Source: Nebraska Department of Agriculture (2020)

The purpose of this survey is to establish a foundation of information to build upon within a later project. Through a series of questions, the key informants participating in this study identified the topics and issues relevant to negotiated cash traders within the domestic fed cattle market and provided their insights and perspective about the current state of competition within the industry.

Survey

The following script was utilized when contacting feedlot operators to ensure the goals of the survey are met within an appropriate time allocation.

> *"Good morning/good afternoon, my name is TaraLee Hudson, and I am currently a senior at the University of Nebraska-Lincoln where I study animal science and agricultural economics and am a student in the Krutsinger Beef Industry Scholars program. I am conducting a survey of feedlot operators throughout the state of Nebraska to gain a better understanding of negotiated cash trade within the fed cattle market, specifically looking at bidding from the perspective of the cattle feeder. The results of this survey will be compiled within a report that I would gladly share with you, once it is complete. If you are willing to participate, I have a series of questions that will take no longer than twenty minutes to answer.*
>
> *(1) Preferences toward negotiated cash transactions*
>
> - *a. What percent of cattle do you market via negotiated cash or negotiated grid?*
> - *b. Why do you choose to sell via this method?*
> - *c. Does your packer allow you to sell cattle using different marketing methods?*
>
> *(2) Bidding process*
>
> - *a. How do you obtain cash bids from packing facilities?*
> - *b. What factors do you consider when evaluating those bids?*

c. *On average how many bids do you receive on a pen of cattle? Does this vary by the time of year or type of cattle?*

(3) Thinning cash trade and its implications

a. *What is your opinion about the volume of negotiated cash sales currently occurring within the fed cattle market?*

b. *What implications does a relatively thin market have for your operation?*

(4) Other issues of concern

a. *Do you have any concerns about the status of the market which were not addressed that you would like to share?*

Results

Ten anonymous participants surveyed in the study account for approximately 140,000 of the 1.4 million head identified within the Directory, on a one-time capacity basis. The responses collected from participants have been assembled in the following synopsis.

<u>Question 1a</u>

In response to question 1a, "What percent of cattle do you market via negotiated cash or negotiated grid?" survey participants indicated that they utilize negotiation for the transaction of their fed cattle anywhere between zero and 100 percent of the time. Five respondents declared that they market 70 percent or more of their cattle via negotiated cash or negotiated grid transactions. Three respondents indicated that they utilize negotiation within their marketing strategy for 30 percent or less of all their cattle. One participant indicated that he does not take part in any form of negotiation for the sale of his cattle and has adopted this approach within the past four years.

When answering this question, several participants noted that the majority of the cattle they market align with the requirements of value-added programs and are thus sold through this type of grid. "Commodity cattle" or "cattle that don't fit a program" are those which are typically negotiated for their sale, as was indicated by one survey respondent. Another participant specified that the transaction method varied between different cattle within his operation per the preference of the customer who has retained ownership of the cattle throughout the finishing process.

Question 1b

To expand upon their response to the first question, the survey included a follow-up question asking why they choose to sell via the negotiated methods mentioned earlier. A consensus among survey participants suggested that feedlot operators wish to capture the maximum amount of value they can for each head, which negotiation allows. Several respondents commented about the leverage that feedlot operators currently have when negotiating with packer-buyers within the fed cattle market. As a result of the cyclical downturn in beef cow supplies exacerbated by drought conditions throughout the Northern Hemisphere, the amount of fed cattle currently available for slaughter has been significantly reduced. This has left many packers in a "short-bought" scenario, providing an opportunity for cattle producers to gain surplus within the market through negotiation. Other participants noted that it is their personal preference to use negotiated grid and negotiated cash transactions and that they are "comfortable in the cash market given the quality of cattle" they are feeding. The same participant noted that "grids have more discounts" and implied that in these types of situations, it is more opportune to trade in the cash market. As previously discussed, one survey respondent specified that their marketing strategy varies per the preference of the customer who has retained ownership of the cattle throughout the finishing process. In addition, one participant elaborated on his response to the first question by stating that "Packers pay us money not to negotiate."

Question 1c

To build upon our understanding of the feedlot-packer relationship, the survey included a question to assess whether the packer would allow operators to sell cattle using different marketing methods. The responses indicate the significant variation between survey participants regarding their experiences about which transaction types a packer will entertain. One participant noted that some packers do not allow negotiation for grid-based transactions whereas another participant noted that the packer does not allow other marketing methods at all. Although the feedlot operator may interact with a buyer representative daily, the transactions for fed cattle are "more controlled by [the] sales team" which is seeking out specific cattle that fit within their program guidelines and this ultimately influences which marketing method will be used for the sale of the cattle. A different perspective was also provided by another participant. They mentioned that their relationship with their packer-buyers allows them to have an up-front discussion about alternative marketing transactions for their fed cattle.

An additional survey respondent commented about their efforts to design and establish their grid upon which various packers would be able to bid. However, they mentioned that integrating this type of transaction into their marketing strategy was very challenging due to the corporate nature of current beef processors. Many packer-buyers were willing to bid on the base price for the grid transaction but first had to have higher approval for the grid and its corresponding values. As a result, this operator has resorted to marketing his cattle using grids that have been written by the purchaser.

Question 2a

In response to question 2a, “How do you obtain cash bids from packing facilities?” the general feedback provided by participants indicated that they assemble a “show list” of cattle within their feedlot that they believe are market ready. A packer-buyer will typically travel to each feedlot within the week to evaluate the pens of cattle that appear on the operator’s show list and provide a bid as to what they believe the value of the cattle is. One individual mentioned that they disperse their show list via text message to their regular packer representatives every Monday morning. Two other respondents acknowledged their use of a third-party consultant for the acquisition and negotiation of cash bids. In this situation, the operator is not involved in the back-and-forth conversation with the packer representative but rather provides the final decision as to whether they will accept the offer or not. One participant who noted their use of a third-party representative said, “[we] just want to capture a fair market price” especially in the current condition of the fed cattle market as leverage has shifted away from processors due to shortened supplies. Additionally, one survey participant indicated that upon providing their show list it is “rare that [they] would get a cash bid” for their cattle making this question irrelevant to their current operation and position within the market.

Question 2b

A critical part of understanding bidding concerning the cash market is strengthening our insight into what considerations are made by a feedlot operator when they are determining whether to accept or defer a bid. For this reason, the survey included the question, “What factors do you consider when evaluating those bids?” to better assess the idea previously mentioned. When prompted with this question, every survey participant indicated that the price value associated with the bid is the single most important factor they are considering when differentiating between which bid to accept and which bid(s) to decline.

Beyond the price, the survey responses indicate that the next most important factor when evaluating a bid is the relationship that the feedlot operator has with the packer. “[I] have to be comfortable doing business with them,” stated one survey participant. The third most significant consideration acknowledged by the surveyed feedlot operators was the location or the cattle’s proximity to the slaughter facility. In a situation where the feedlot is responsible for the transportation of the animals to the packing facility, location becomes a very important factor when evaluating the cost associated with transportation, as well as the loss incurred through shrink.

Another factor noted by survey participants as being important considerations when evaluating a bid is their current knowledge about the number of cattle that have been traded within the past week, specifically within their region. Having a strong understanding of the volume traded within the region lends insight into which packing plants may be “short-bought” for the upcoming slaughter weeks, to which an operator would have more leverage when negotiating. Another important factor acknowledged by survey respondents was the time of delivery concerning gain while also considering the inputs which are needed to maintain the animals’ marketable weight. Other considerations that feedlot operators are making when evaluating a bid are their current hedged position within the futures market and how those bids may equate to profit within their marketing strategy. In addition, one respondent indicated that an important factor within their decision-making framework is the timing of payment. This consideration builds upon the concept of the relationship between the feedlot and the packer. Given their prior experiences conducting business with various beef processors, the feedlot operator can compare the timing of payment and use this as a point of evaluation when differentiating between bids. In sum, many important considerations are made by a feedlot operator when selecting the bid which will bring the most value for their cattle. As stated by one survey respondent, “[There are] lots of variables [which] impact profitability and making the decision to take a bid,” and daily they are “weighing so many things.”

Question 2c

To better gauge the level of competition within the fed cattle market throughout the state of Nebraska, survey participants were asked, “On average how many bids do you receive on a pen of cattle?” The most predominant response across all surveyed participants was an average of three to four bids for any lot of cattle they have on their show list. Two operators indicated that they may realistically only receive one bid, while two other operators indicated that they each receive seven or eight bids for any given pen of cattle, respectively.

The second part of this question inquires about the number of bids a feedlot operator may receive concerning the time of year or type of cattle. No survey respondents indicated a significant variation in the number of bids that they would receive during different times of the year. The same response was recorded for the number of bids concerning the type of cattle which are being offered. However, it is important to note one comment provided by a survey participant indicated that the number of bids they receive for cattle within their feedlot truly depends on the regional processing facilities in surrounding states and the number of cattle they have acquired locally.

Question 3a

In response to the question, "What is your opinion about the volume of negotiated cash sales currently occurring within the fed cattle market?" survey participants provided varying perspectives regarding their opinion about the current state of the cash market. Several respondents indicated that they would like to see more robust cash trade and that they are not satisfied with the current volume of transactions that are occurring within the spot market.

One participant who noted their dissatisfaction with the current state of the market also mentioned their concern about the number of cattle within the "captive supply." This refers to those animals which have been committed to and are owned by a packing facility two weeks or more, before slaughter (Ward, n.d.). While elaborating on their perspective, one operator discussed the need for more cash trade in the current competitive environment given that there are lower volumes of cattle being traded within the market as a result of the cyclical decline in cattle on feed.

However, several other respondents indicated that they feel comfortable with the current level of negotiated trade. Many acknowledged the evolution which has occurred throughout the beef industry within the past three decades, particularly within the fed cattle market. The current volume of cash transactions reflects the evolution which has occurred. This change is the result of efficiencies that have been created and incentivized within the competitive market. One feedlot operator noted the evolution which has occurred within their industry and their need to continually change and adjust their business model to be successful within this market dynamic.

Question 3b

Following up on their response to the previous question, the survey inquired about the potential implications that a relatively thin market has for the respondent's operation. No operator participating in the survey indicated that their current feedlot is impacted by the relatively low volume of negotiated cash transactions. One respondent commented that "every operation has to do what is best for them" implying that the impact of a thinly traded market is only determined by one's willingness to participate in negotiated trade. Another respondent provided a unique perspective about the implications of a thin market, noting that these conditions do not negatively impact the cattle feeder, but rather, harm the cow/calf producer. The cow/calf producers are those individuals who are earlier within the beef value chain that are supplying the animals for further finishing and eventual processing. Cow/calf producers rely on the feeder cattle market to assess the value of the animals they have produced, but this market is a direct reflection of the fed cattle market and is thus impacted by its conditions.

Question 4a

The final question of the survey asked each participant to share their concerns regarding the status of the market if they weren't already addressed by an earlier question. Each respondent was willing to provide a perspective of their experience, as well as their vision for the future of the industry. As individuals who participate in the market daily, their points of view lend strong insight into potential political and eventual research considerations. Upon my review and analysis of the survey responses, I have identified several noteworthy comments as provided by the surveyed feedlot operators.

Regarding current policy initiatives, several respondents provided their perspective about mandated minimum volumes of cash trade as referenced in the most recent version of Senator Deb Fischer's Cattle Price Discovery and Transparency Act, as well as other past legislative efforts. Multiple participants indicated their disfavor towards government intervention within the marketplace, while other participants felt strongly about the need to improve competitiveness through the implementation of regional minimums. Other concerns within the administrative and legislative realm were regarding the Cattle Contract Library Pilot Program which was initiated as a part of the Consolidated Appropriations Act of 2022 and became a live report on January 28th, 2023. One respondent discussed his dissatisfaction with the current report, saying that they don't believe it accurately represents all the trade that is occurring within the market. As a small feedlot operator, they voiced their concern about their ability to compete with larger operations without access to complete and accurate market information.

Another concern identified within the survey was regarding the consolidation which has occurred throughout the beef industry. One operator discussed the significant concentration which has taken place within the packing sector and the implications which have been generated for producers throughout the beef value chain. Although they spoke negatively about such concentration within the industry, they also noted that this change has produced efficiencies that otherwise wouldn't have been possible. Speaking about change within the industry, one survey participant provided a thought-provoking comment, "Marketing might be messy, but we've improved the overall quality of the product and [created] a more reliable consumer experience.” “[Although] we have lost competitiveness, we have gained in other areas,” noted the same producer. A different survey participant commented about the fed cattle industry moving forward as leverage within the market has shifted towards the beef producer. “If people are truly committed to [gaining] leverage within the cash market, the time to act is now, in the next two years when the markets are in our favor.”

Chapter V: Implications

In an ever-evolving industry, one thing which remains constant is the market and the role it provides in determining an equilibrium price and quantity, as well as incentivizing stakeholders and efficiently allocating resources. At the time of completing this project, cattle producers are capitalizing on the bullish conditions they are experiencing within the market due in part to cyclical changes resulting from diminished supply at every level within the beef value chain. Given this, previously heightened concern among industry stakeholders regarding competitiveness within the fed cattle market has temporarily subsided. However, as conditions within the cattle markets continue to evolve and when market leverage begins to shift away from the producer, the industry will once again search for a solution for the chronic issues addressed earlier.

Efforts to address these issues have focused primarily on market transparency and price discovery. Several legislative and executive measures have resulted in actionable change within the market, including the publication of new reports and the Cattle Contract Library Pilot program. These reports have certainly provided new information to market participants. However, the Cattle Contract Library Pilot program has potentially fallen short of its transparency objectives, as indicated by one participant in their survey response. The survey results suggest additional opportunities for further research regarding the Cattle Contract Library and efforts to improve the Library and market transparency. Regarding price discovery, regionally mandated minimums remain just a proposal. This issue has generated significant polarization amongst beef industry stakeholders. Any solution or movement forward with this policy is unlikely to occur unless a new consensus is reached amongst major industry representative groups.

Expanding on the concept of bidding within negotiated transactions, the purpose of conducting this survey was to gain a better understanding of the producer's perception of such issues within the market. The perspectives of various feedlot operators throughout the state are an invaluable tool in a larger, more sophisticated evaluation of the current market atmosphere and competitive environment. Utilizing these responses as a proxy for the fed cattle industry in Nebraska, we have a better understanding of the relevant concerns of producers. Beyond the analysis conducted within this project, the synopsis of participant responses has important implications for more specific survey research, as well as potential educational opportunities in the future.

Although its contribution to the industry and the macroeconomy is readily apparent, the market will never overcome stakeholder scrutiny in its ability to provide a competitive outcome for all participants. In light of recurring Black Swan events, a thinly traded fed cattle market is a reason for much concern as it openly exposes market participants to unpredictable volatility. Nonetheless, defining thinness is a difficult task as only those who actively participate within the market truly know the level at which negotiated trade is unacceptable. As the industry continues to evolve, the challenges associated with price discovery and price transparency will certainly develop into a legacy issue for beef producers, if they haven't already. Above all, it is most important to remember the distinction between price discovery and determination. Price discovery does not result in higher market prices, but rather is a related economic concept that refers to efficiency. An efficient market reflects all the information that is currently available regarding supply and demand. Price determination is the result of the interaction between aggregate supply and aggregate demand within the market which is what identifies the market-clearing price.

Chapter VI: Conclusion

As the beef industry has evolved with time, we have experienced a gradual decrease in the volume of negotiated transactions within the fed cattle sector along with a corresponding increase in the volume of Alternative Marketing Arrangements being utilized. This transition occurred after the integration of value-based marketing in response to declining beef quality and demand. As a result, today's cash market is much more thinly traded within all five reporting regions. A relatively thin market has important implications for price discovery and subsequently price transparency within the competitive space. AMAs, particularly formula transactions, do not contribute to price discovery, which raises the question as to whether there is a sufficient level of negotiated trade to facilitate competitive outcomes within the market.

To restore competition within the fed cattle market, the industry has called for measures to improve price transparency and discovery. In response, the United States Department of Agriculture's Agricultural Marketing Service initiated the publication of two new reports and began administering the Cattle Contract Library Pilot Program. The information made available through these reports enables market participants to make decisions with greater knowledge about current market conditions. To improve price discovery, regionally mandated minimums have been proposed as a potential solution but remain within this stage.

Adequate negotiation between the feedlot operator and packer representative is critical to producing competitive outcomes within the market. The bid-and-ask procedure is an important component of negotiating any type of transaction. To better our understanding of "bidding" within the fed cattle market, a representative survey of

Nebraska feedlot operators was conducted. The results generated through this survey provide important insights into these topics, as well as many other issues which are currently important to industry stakeholders. Such information provides direction for further research, as well as educational opportunities.

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