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LEGISLATIVE HEARING TO REVIEW S. 4030, THE CATTLE PRICE DISCOVERY AND TRANSPARENCY ACT OF 2022, AND S. 3870, THE MEAT AND POULTRY SPECIAL INVESTIGATOR ACT OF 2022

HEARING

[BEFORE THE]

COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY UNITED STATES SENATE

ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

APRIL 26, 2022

Printed for the use of the
Committee on Agriculture, Nutrition, and Forestry

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LEGISLATIVE HEARING TO REVIEW S. 4030, THE CATTLE PRICE DISCOVERY AND TRANSPARENCY ACT OF 2022, AND S. 3870, THE MEAT AND POULTRY SPECIAL INVESTIGATOR ACT OF 2022

TUESDAY, APRIL 26, 2022

U.S. SENATE,
COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY,
Washington, DC.

The Committee met, pursuant to notice, at 10 a.m., via Webex and in room 215, Dirksen Senate Office Building, Hon. Debbie Stabenow, Chairwoman of the Committee, presiding.

Present or submitting a statement: Senators Stabenow, Brown, Klobuchar, Bennet, Gillibrand, Smith, Booker, Luján, Warnock, Boozman, Hoeven, Ernst, Hyde-Smith, Marshall, Tuberville, Grassley, Thune, Fischer, and Braun.

STATEMENT OF HON. DEBBIE STABENOW, U.S. SENATOR FROM THE STATE OF MICHIGAN, CHAIRWOMAN, U.S. COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

Chairwoman STABENOW. Good morning, and welcome to everyone that is here with us. I call this hearing to order for the U.S. Senate Committee on Agriculture, Nutrition, and Forestry.

Today we are holding a legislative hearing on two bipartisan bills aimed at improving competition and transparency in the livestock industry. Thanks to Senators Grassley, Fischer, Tester, and Wyden for leading on the Cattle Price Discovery and Transparency Act of 2022, and thanks to Senators Tester and Grassley for leading the Meat and Poultry Special Investigator Act of 2022.

The Cattle Price Discovery and Transparency Act includes several reforms aimed at improving transparency and price discovery in cattle markets, and the Meat and Poultry Special Investigator Act would further support fairness in cattle markets by creating a new USDA office dedicated to enforcing competition rules under the Packers and Stockyards Act.

The last few years have made it clear we need to create a more resilient food supply chain that is better able to withstand disruptions, whether it is a pandemic, a cyberattack, weather disasters, or a war in Ukraine.

Early in the pandemic, enormous shifts in consumer demand, along with COVID–19 outbreaks among processing plant workers and other disruptions left farmers with low prices and few available markets. Consumers all saw empty shelves and sky-high

prices at the grocery store, all while huge companies reaped record profits.

Our food supply chain, while efficient, also proved to be highly vulnerable. Consolidation and lack of competition was a significant contributing factor. The cattle industry is a prime example. Just four big companies control 85 percent of the beef slaughter in our country, and two of them are foreign owned.

At this time two years ago, upwards of 30 percent of beef processing capacity was offline because large plants shuttered when meatpackers failed to adequately protect their workers. In 2019, a fire in one plant reduced beef processing capacity by more than five percent for several months, and just last spring a ransomware attack on one company shut down one-fifth of the U.S. meat processing capacity.

These events have ripple effects across our economy, as we know. As we heard from our witnesses last June, consolidation and concentration hurts farmers, hurts workers, and hurts consumers, as well as stymying competition. It means producers across the country receive fewer bids when they sell their cattle. It allows the largest meatpackers to muscle out new and smaller businesses who try to compete, leaving farmers with limited local and regional processing options and long wait times.

We have heard concerns about the lack of transparency and competition loud and clear, as well as the need to ensure producers of all sizes have options and fair markets. That is why I was pleased to see President Biden's Action Plan for a fairer, more competitive, and more resilient meat and poultry supply chain announced earlier this year. With the funding we secured in the American Rescue Plan, the USDA is investing more than $1 billion to promote competition by expanding local and regional meat processing capacity and provide more options for farmers. The Administration is also taking steps to ensure that competition rules, under the Packers and Stockyards Act, are enforced.

There is no shortage of complex challenges facing our livestock producers, and it is in the interest of all Americans to make our food supply chain more resilient.

I look forward to hearing from USDA and our panel of industry experts for their perspective on these proposals today.

Now I am going to turn to our Ranking Member, Senator Boozman, for his opening remarks.

STATEMENT OF HON. JOHN BOOZMAN, U.S. SENATOR FROM THE STATE OF ARKANSAS

Senator BOOZMAN. Thank you, Madam Chair, and we very much appreciate having today's hearing. I want to thank our witnesses for being with us this morning. I look forward to hearing their testimony and discussing S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S. 3870, the Meat and Poultry Special Investigator Act of 2022.

There is no doubt that the bills we are discussing this morning are the results of the frustration at the prices America's farmers and ranchers receive for their cattle in relation to the prices consumers ultimately pay for their beef products. There is a significant

difference in these two prices, and I understand and I share the frustration of cattle producers.

I also understand the desire of some of my colleagues to propose legislative solutions to address this frustration, and I appreciate all their hard work bringing this to the forefront. Before Congress passes any changes to the law, I believe we have a responsibility to understand the issue we are seeking to solve and to understand the proposed solution. Since the sponsors introduced their first versions of the legislation in November 2021, we have spent many, many hours reviewing the proposals, talking with USDA officials, and soliciting input from the Nation's prominent cattle and beef industry economists. My charge to my staff was to learn all they could about the legislation and talk to the experts, including cow-calf producers, backgrounders, feeders, and packers. We supplemented these efforts with academic analysis. This morning's hearing is one more step we are taking to learn about the issues and the cost and benefits of the proposed legislation.

Over the last few months, as I and my staff have studied S. 4030 and its predecessor, we have learned a few things about the potential impact of the legislation. I shared this with my colleagues to help inform the discussion and hopefully allow us to seek comments and clarifications from our witnesses.

If adopted, the impacts of S. 4030 would include: the number of cattle marketed under Alternative Marketing Agreements (AMAs) will decrease and the number of cattle sold in the cash market will increase. For example, in Texas, Oklahoma, and New Mexico between 340,000 and 2.5 million fed cattle will need to move out of formula contracts annually. In Iowa and Minnesota it is fewer than 2,000 head a year. Using Texas A&M's analysis and economic cost estimates from Dr. Koontz, the cost of this shift away from the AMAs will cost cattle producers between $23 million and $249 million annually, depending on how the Secretary of Agriculture decides to implement the law. Over the five-years analyzed by Texas A&M, the costs are in the hundreds of millions of dollars.

The costs to cattle producers are not all borne equally. Some regions will be more heavily impacted than others. Nearly 90 percent of the economic costs of this bill are estimated to be borne by farmers in Kansas, the Southern Plains including Texas, Oklahoma, and New Mexico.

The conversations I have had with participants in all sectors of the cattle industry have raised some questions that I believe we need to consider: How do the proposed solutions influence packer concentration? What region or sectors of the cattle industry will ultimately benefit, and what regions or sectors will bear the cost? Does S. 4030 disincentivize investment and innovation? Will the utilization of AMAs cap what tools producers have to manage risk? What will the cattle industry look like in a decade if this legislation is enacted, and what will it look like if it isn't? How would these bills have changed the supply and demand dynamics during the COVID–19 pandemic or other black swan events?

With respect to the Meat and Poultry Special Investigator Act, I must say that I am very uncertain about the legislation's purpose and goals. I know the purpose and I very much enjoy working with Senator Tester, and I know he is very, very frustrated with this

and trying to get some solutions. The legal experts have shared with me that this newly created office at USDA will potentially just duplicate functions already performed by the USDA, the Department of Justice, the Federal Trade Commission, and the Department of Homeland Security. Do we really think that creating yet another government entity is a real solution? Is duplication of responsibilities and confusing the chain of command among Federal regulators helpful to our stakeholders? Does the creation of this office discourage the establishment of new, small, and mid-sized meatpackers?

Though the focus of this legislation and the sponsor's interest is focused on the large packers, what are often referred to as the Big Four in the beef industry, there are more than 1,000 small packers across the country who are also subject to the requirements of the Packers and Stockyards Act. Those small businesses are dotted across rural America, and they represent the vast majority of the meat and poultry processing facilities in America. They would also be subject to investigation by this new law.

Additionally, legislation also impacts the pork, poultry, and lamb industries, yet none of those stakeholders are testifying today. I believe the Committee should ensure that the record reflects any comments and analysis those industries would like to provide. As I believe there is potential for confusion amongst the various agencies about who is in charge, the Committee would benefit from knowing the position of the Department of Justice on S. 3870.

Finally, I would like to share with the Committee that I have been in spirited conversation with USDA, and I unsuccessfully attempted to secure the expert opinion of the Office of the Chief Economist on S. 4030, to ensure the Committee has the benefit of the Chief Economist's expert opinion. I will pose the questions to the witnesses today and submit questions for the record. It is my expectation and hope that the Committee will share my expectation that the Office of the Chief Economist should be empowered to answer any questions of any Senator fully, completely, independently, and without fear of reprisal. Furthermore, any effort by any government official to thwart the Committee's oversight activity should not be tolerated.

Madam Chair, I ask for unanimous consent to include in the hearing record the 34 letters and testimonies sent by stakeholders since we noticed the hearing and the multiple economic analyses I have mentioned.

Chairwoman STABENOW. Without objection.

Senator BOOZMAN. Thank you.

[The letters can be found on pages 90–503 in the appendix.]

Senator BOOZMAN. I also provided a copy of these documents to all of our Committee members today.

I yield back the remainder of my time, and again, thank you all very much for being here.

Chairwoman STABENOW. Thank you so much, Senator Boozman. We will all work together, and I am confident we will be able to get questions answered that need to be answered.

Senator BOOZMAN. Thank you.

Chairwoman STABENOW. Thank you.

Now I would like to call on Senator Tester, the only working farmer in the U.S. Senate, and you are not on the Agriculture Committee. We benefit from your expertise working with us, and want to hear from you again today as the senior Senator from Montana with the most direct involvement and risk every day, as you are working through the elements on every level to help bring us food.

We thank you for your leadership. You are a leader on these issues, and the original co-sponsor of both bills, and we appreciate having you make some brief remarks before the Committee.

STATEMENT OF THE HONORABLE JON TESTER, A UNITED STATES SENATOR FROM THE STATE OF MONTANA

Senator TESTER. I will try to be brief. I want to thank you for the ability to speak in front of this very important Committee, and I want to thank you, Senator Stabenow, and you, Senator Boozman, for your leadership on this Committee. I have worked with you both. You are both good people. We may have a difference of opinion on some of this stuff, but the bottom line is we are at a moment in time.

There are two bills in front of you today, and I would be remiss if I did not thank Senator Fischer, Senator Grassley, and Senator Wyden for their hard work on this bill. It has been hard work but it has been great work, and it has been fun working with you guys, so thank you very, very much.

We have two bills in front of us today, the Cattle Price Discovery and Transparency Act, which I am going to call the Spot Pricing Act, and the other one is the Meat Packing Special Investigator Act. These very important bills are in front of a very important committee. This indeed is a moment in time. The reason it is a moment in time is because ag production has gotten far more consolidated the 44 years since I took over the farm in 1978. It is not one party's responsibility. The fact is that both parties have watched this happen, and we have done nothing.

Today we have an opportunity to do something. Why? Because we have seen a mass exodus off the land. Rural America is drying up. On the other side of the equation, we see consumers that are being treated unfairly in the marketplace, because there is no competition. Today we can address both of those issues with these bills.

A citizenry that is well fed is essential if we are going to have a democracy to survive. With consolidation, we see the potential for food to become a serious problem in this country. We need to make sure that our citizenry has access to food they can afford.

The continual concentration of the marketplace at the hands of a few would eventually destabilize this country. It will destabilize this country unless we take advantage of this moment in time.

In my small town, as an example, when I graduated from high school there were 1,000 people in that town. Now there is about 600. There were three elevators, grain elevators. Now there are none. There were two hardware stores. Now there are none. There were three grocery stories. Now there is one. Maybe the most distressing is there were five bars, and now there is only two.

Okay. In order for communities to exist in rural America we need to have a fair marketplace, and if this marketplace is consolidated,

capitalism that works well in a free market does not work well in a consolidated market where there is concentration.

Quite frankly, the end result of this is we have got ranchers that are going broke. Ranchers that are generational, that have been on the land three, four, five generations are going broke. Not because they are bad operators. Not because they made bad decisions. The model does not work for them anymore. We need to do something about that or we will continue to see what has happened over the last 100 years.

On the consumer side of things, what COVID did teach us is when you have big processors and it is hit with something like COVID they have to shut down. Or you have thousands of people that are working instead of 100 or less, these close down. What does that do? It reduces the prices for the farmer and drives up the prices for the consumer at the retail level.

The fact of the matter is, these packers are doing pretty darn well. Tyson Foods, in the last quarter of 2021, their net income rose from $469 million to $1.2 billion. That is one quarter, okay? They did not come up from 2020 to 2021 up 47 percent, and, by the way, I am all about folks making money. I think it is a good thing. I think profit margins are great and we ought to have them. People, there needs to be some transparency. There needs to be some accountability, because what we are having in this country is consumers and people in production agriculture treated unfairly.

This is a moment in time, folks. We have an opportunity to do something. I do not know what will be said at this table today, but here are the facts. We have a problem. Today's marketplace is more consolidated today than it was in 1921, when this body passed the Packers and Stockyards Act. Rural America is drying up because we cannot get fair prices at the farm gate. Capitalism is not working in this particular instance because of concentration and consolidation in the industry. Consumers are paying higher prices because without competition they are set without regard to what people can afford.

We need some sunlight. We need some sideboards. There are people that will say these bills do too much. There are people who say these bills do too little. I can guarantee you one thing. If we walk out of here today and we do not pass these bills we will see the same result that we have seen for the last 100 years, and in the end our food security is put at risk.

You have a tough job ahead of you. You will discuss it. You will debate it. Please do the right thing, for the sake of folks like me who want to pass their farm onto the kids. It is not about inheritance tax. It is about making sure we get a fair price at the farm gate.

Thank you very much.

Chairwoman STABENOW. Thank you very much, Senator Tester, for your passion and your leadership on these issues.

I will ask our first two witnesses from the U.S. Department of Agriculture to come forward to the table. I understand that we have a statement that Mr. Green will give on behalf of the Department, and then both of our witnesses will answer questions.

Mr. Andy Green is a Senior Advisor for Fair and Competitive Markets at USDA, where he advises and coordinates USDA's com-

petition and market regulatory policy. Mr. Green leads the Department's implementation of President Biden's Executive order on promoting competition in America's economy. In particular, he is spearheading the modernization of the Packers and Stockyards Act rules to promote fair and competitive markets for producers and growers. Welcome.

Mr. Bruce Summers has served as Administrator for the USDA's Agricultural Marketing Service since 2018. As Administrator, Mr. Summers oversees the Ag Marketing Service's many programs, ranging from USDA meat, produce, and dairy grading; the USDA Market News; commodity checkoff programs; and the National Organic Program. He also oversees USDA food procurement, the Packers and Stockyards Act, and truth-in-labeling programs. You have a full agenda, Mr. Summers.

Welcome to both of you. I will ask Mr. Green to proceed first, and then we will open it to Committee questions. Welcome.

STATEMENT OF ANDY GREEN, SENIOR ADVISOR FOR FAIR AND COMPETITIVE MARKETS, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC

ACCOMPANIED BY BRUCE SUMMERS, ADMINISTRATOR, AGRICULTURAL MARKETING SERVICE, U.S. DEPARTMENT OF AGRICULTURE, WASHINGTON, DC

Mr. GREEN. Thank you, Chairwoman Stabenow, Ranking Member Boozman, and members of this Committee. Thank you for this opportunity to discuss the state of the cattle industry and rural America and the United States Department of Agriculture's role in supporting it.

America has the greatest cattle and beef in the world, but our markets are not working fairly, and they are increasingly vulnerable to shocks, crises, and other risks that leave them not working well for anyone. We have all heard from cattle producers that thin and thinning markets put everyone at risk, not just those that do the hard work of price discovery, but as the pandemic brought home clearly, any producer that wants to price based off of the live cattle market.

We also know the importance of choice in these markets. Producers are independent-minded businesspeople. Many enjoy benefits from long-term contractual relationships. Just last week, we were out in Kansas and Missouri for the Cattle Contract Library Pilot Listening Session, and visited with several producers. We heard a diversity of views. Some are deeply frustrated with the take-it-or-leave-it market. Others are focused on steady relationships and the benefits that can be obtained from them. Everyone agreed that rewarding quality was paramount.

The cattle market is a diverse and complex market, and that is great, but for markets to function you need transparency and choice. We are at risk of losing transparency in far too many parts of these markets, and concentration, particularly at the local level where cattle procurement takes place, is high. This makes the markets more vulnerable and also poses unfairness risks to those who are doing the hard work of price discovery.

The solution, no matter how you approach it, is competition. Competition supports expanded markets and gives producers more

leverage to negotiate a price that they feel is fair for their product. It supports the transparency needed to enable to markets to set prices, allocate supply, and incentivize quality.

We all know that the competition challenges we currently face have been decades in the making. To tackle these challenges, USDA has been deploying as many tools in the toolkit that we have available. There is no silver bullet to promoting fair and competitive markets, but there are certainly steps we can take to ensure that producers are getting a fair shake. Already the Department has worked to spur competition by making available financing for new meat processing facilities, which will create new and better markets for producers. We are in the process of modernizing the packers and stockyards rule book to enable clearer, more effective enforcement. We are working to ensure consumers get the benefits from their hard-earned food dollar under labels such as "Product of the USA" and more.

We are heartened by the focus of this Committee and the Congress generally on these areas of critical importance. In particular, we believe that measured and flexible tools to address the erosion of transparency, price discovery, and cattle producers' leverage in the cattle market would benefit all who rely on these markets.

Additionally, a new position and office at USDA with enhanced authorities would, if appropriately resourced, serve as a focal point for accountability. It would also enhance enforcement, effectiveness, and signal the importance that Congress places on meaningful competition and fairness in the livestock and poultry industries.

We appreciate the chance to support Congress' consideration of ways to promote fair and competitive markets. Should these bills be passed into law, USDA will implement them to the best of our ability, deploying a fact-based, input-driven approach. As always, our goal will be to deliver greater choice and fair prices for both producers and consumers alike and to promote the strength and resiliency of our supply chains, including the packers' role in them.

We looking forward to partnering with Congress to work on this important initiative. Thank you, and I look forward to taking your questions.

[The joint prepared statement of Mr. Green and Mr. Summers can be found on page 54 in the appendix.]

Chairwoman STABENOW. Thank you very much, Mr. Green.

Let me begin by speaking about the President's action plan to create a fair and more resilient meat and poultry supply chain. I was really pleased to see the President announced that earlier this year and really focus on this important piece of rising food prices. It includes, as you know, greater coordination between the USDA and the Department of Justice, to enforce our competition laws. In addition, the President's budget for 2023 requested an additional 40 percent increase for oversight and enforcement of the Packers and Stockyards Act.

How will the new office created under the Meat and Poultry Special Investigator Act, that we are here to talk about today, how will that complement the efforts of the USDA and the DOJ?

Mr. GREEN. Thank you, Madam Chairwoman. It is absolutely important that we have the staffing and resources and the right structure to deliver on the enforcement that the markets need. Be-

tween 2010 and today, there has been a 40 percent decline in the staffing in the Packers and Stockyards Program, now Division, and that also does not even count the staffing challenges or strains on our General Counsel's Office.

The new Special Investigator's Office would, if appropriately resourced, be a focal point for accountability, a focal point for bringing in highly skilled capacity that will supplement what we have today, and would enable us to be responsive, working with all the different parts of the regulatory infrastructure that we need to deliver the enforcement that the markets need.

Chairwoman STABENOW. You would see the special investigator as really partnering with you and really a focal point to bring all of this effort together, to really make it effective.

Mr. GREEN. Absolutely. We all know that when you build a case you also need to package it and take it into court or into the administrative process, and that requires a number of different skills. This new special investigator would enable us to tap efficiencies, to build the staff we need, and really to work across the Federal infrastructure to be more effective at delivering—you know, making sure the rules are enforced so that farmers and ranchers have a fair shake, the transparency and the choice that our anti-trust and competition laws provide for them.

Chairwoman STABENOW. Great. Thank you.

Mr. Summers, as you know I have been advocating for fixing our domestic food supply chain. All of us on this Committee are very concerned seeing what has happened because of multiple things coming at our farmers and our systems, and so on, that unfortunately are not going away. We know about the pandemic and the broken supply chains, but we also know about the severe weather related to the climate crisis. We know about what has happened in cyberattacks, et cetera, et cetera, and now the war in Ukraine. I mean, all of this coming at us when we are looking at operating in a global food supply chain right now.

That was the reason that I advocated so strongly to put dollars into the American Rescue Plan. We have $4 billion to address food supply chain issues. The Department is moving forward. We need to make sure those resources are protected and can do that.

I know the USDA is using these resources for a wide range of new investments to support meat and poultry processing—gap financing grants, loan guarantees, and so on. Could you speak more about what is being done to support small plants to expand and work force training, technical assistance, all the things that need to happen to really support this sector? When we look at the investments in new local and regional processing capacity, how can the legislation in front of us, the Cattle Price Discovery and Transparency Act, help to ensure that these investments are effective and successful in the long run?

Mr. SUMMERS. Well, thank you for that question. I think you are right. The two are intertwined. The work that we have done to reinforce the middle of the supply chain, so to speak, with the $4 billion in investments that have gone to things like the Food Supply Guaranteed Loan Program, the Meat and Poultry Inspection Readiness Program, to name just two of several. I think it is important as we invest in those programs, and those businesses in the middle

of the supply chain, that we also have to be mindful that these small, mid-sized businesses, these local regional businesses, they need a level playing field on which to compete.

In making these investments in these businesses and creating these opportunities in the middle supply chain, which gives producers more options, we cannot neglect the fair-trading rules. Programs like Mandatory Livestock Reporting programs, like the Packers and Stockyards Act, really help us level that playing field for all of these businesses trying to operate in that middle of the supply chain. I think it is critical that these new businesses or growing businesses—they are not all new—have that opportunity in a fair marketplace that is brought by combining the investments along with the enforcement programs, like Livestock Mandatory Reporting system (LMR) and like Packers and Stockyards.

Chairwoman STABENOW. Having information, having the transparency and so on you believe is important to having that level playing field. I mean, I am concerned to make sure that the investments we are putting in now for small and regional meat processing opportunities, to create competition, that they are successful long-term, to really deal with the concentration and consolidation and so on, and create more competition. You are saying these kinds of efforts on transparency are important for us to be able to do that?

Mr. SUMMERS. All businesses need information on which to base their business decisions. The Livestock Mandatory Reporting system provides information to everyone, available 24/7, for free. It is really a level-setting program that provides a lot of information to everyone who needs it, to make their business decisions, their investment decisions. Yes, ma'am.

Chairwoman STABENOW. Thank you very much. Senator Boozman.

Senator BOOZMAN. Thank you, Madam Chair, and again, thank you all for being here.

I share Senator Tester's concern for rural America. One of the bedrocks of rural America is the community banks. We are not creating any more community banks in the sense a lot of that is due to the tremendous regulatory burden that they face, and that is a very costly factor in regard to their operations.

Mr. Green, if the Office of Special Investigator were established at USDA, do you envision it investigating producers?

Mr. GREEN. Its authority would be the same as the existing Packers and Stockyards Act, and so the Packers and Stockyards Act stops at the packer. It does not go beyond that.

Senator BOOZMAN. You don't think that it possibly would go down as far as producers collaborating?

Mr. GREEN. Sir, we would be consistent with the manner in which it is enforced today. It is about providing the resources and the capacity and the, you know, sort of the efficiencies to enable us to have clear rules, clear and consistent enforcement, and that is focused on the entities that it regulates, which are the packers and live poultry dealers, and then the regulated entities, which are not the producers.

Senator BOOZMAN. It wouldn't. Okay. Would producer-cooperative packing facilities like the new beef plants being developed in sev-

eral of our States or the numerous producer-owned swine plants that exist be subject to investigation by this office?

Mr. GREEN. The definition of packer—I believe I would have to look at the specific details, but it would——

Senator BOOZMAN. But, that would be the case.

Mr. GREEN. Yes.

Senator BOOZMAN. Yes. Okay. We are being told by cattle feeders that as part of DOJ's investigation of the beef packing sector that Federal investigators have interviewed cattle feeders and asked them to view their records and justify their business practices. Do you think this type of scenario could arise and be a looming threat producers will have to face if a permanent investigative office is established at USDA?

Mr. GREEN. I do not want to comment on an ongoing investigation, particularly one by a different agency.

Senator BOOZMAN. That's not a scenario that is——

Mr. GREEN. No.

Senator BOOZMAN [continuing]. hard not to envision.

Mr. GREEN. One could envision it, but it is absolutely our commitment that we enforce the laws, you know, on the entities that are covered by them. It is packers, live poultry dealers, swine contractors, and that is the focal point of the investigative authority.

Senator BOOZMAN. Well, generally past performance is indicative of future.

Mr. GREEN. Yes, sir.

Senator BOOZMAN. That is what we have going on now.

Mr. Green, what unintended consequence do you think a cash market mandate will have?

Mr. GREEN. Sir, that is a really important question. I believe that a lot of the outcomes will be dependent upon implementation, and so flexibility and resources are very important. We share with you the desire to understand the economic impacts, and we want to work with you and be partners. We want to make the full analysis available to you at the earliest convenience on those types of questions.

In general, we are intending to be as careful, input-driven, fact-driven as we possibly can, and take into account all the different viewpoints of a complex and complicated industry.

Senator BOOZMAN. Okay. Thank you.

Considering the Administration's interest in expanding new marketing channels for climate-oriented commodities, and knowing that a cash mandate makes supply chain coordination unlikely, wouldn't a significant number of producers be discouraged from investing in production that qualifies for USDA's Climate-Smart Pilot Program or recently announced Low Carbon Beef Process Verified Program? Those would be in that category.

Mr. GREEN. I think that we—I hesitate to speculate, because there are a lot of details that need to be worked out in implementation. A couple of principles that I think might be relevant are that, you know, there are a lot of different ways. We see cattle marketed across the country in very different ways. I believe that a lot of different producers may choose to take advantage of some of those opportunities, and they may use different pricing tools, different procurement means. There is, you know, process verified and other

programs that are all available in the market. I think promoting the diversity in choice within the market is one of our priorities.

Senator BOOZMAN. Okay. Mr. Summers, would you comment on that?

Mr. SUMMERS. It is the equivalent of being on mute on Zoom, right?

I would agree with what Mr. Green has said. I think——

I concur with Mr. Green's comments. I think there are a lot of details that have to be worked out. If Congress turns this legislation into law we will have to engage in rigorous rulemaking and try to identify those economic factors and costs and things.

Senator BOOZMAN. Thank you, sir. Thank you all very much.

Chairwoman STABENOW. Thank you very much. I believe we have Senator Klobuchar virtually with us.

Senator KLOBUCHAR. Yes.

Chairwoman STABENOW. Good morning.

Senator KLOBUCHAR. Good morning. Thank you so much, Senator Stabenow and Senator Boozman. Thank you to our witnesses.

As you know, I chair the Antitrust Subcommittee of the Judiciary. This is near and dear to my heart. I just think in general we have too much consolidation in our country. I would start by thanking my colleagues, especially Senator Tester, for the work he has done on the Meat and Poultry Special Investigator Act. I am a cosponsor of that bill. We know what it would do is enhance the USDA's collaboration with other Federal agencies.

Mr. Green and Mr. Summers, do you believe that increased interagency cooperation with the USDA, Department of Justice (DOJ), Federal Trade Commission (FTC), Department of Homeland Security would produce better evaluations of our markets and an ability to look at this and make a more resilient food supply chain?

Mr. GREEN. Thank you, Senator. Really important question. We are working under the President's Executive order on competition with a wide range of regulatory agencies and experts who bring to the table ideas and information that is really essential. You know, we want to be deploying every tool in our toolkit to enhance competition. We have obviously invested in new meat processing capacities, which is one of the tools that we can bring to the table, to modernize the Packers and Stockyards Act.

We need to learn from the Federal Trade Commission around the retail markets and the opportunities and the challenges of access to retail, and so we are working with them on reports. We are working with the Department of Justice to enhance the coordination on antitrust enforcement in the middle of supply chain. I certainly think and agree that an enhanced focal point and enhanced capacity here at USDA would enable us to do even more and to be even more effective on those ends, to be able to deliver choice and competition and a fair and clear rulebook enforced for producers and packers alike.

Senator KLOBUCHAR. Thank you. One of the things that I have found is that our antitrust enforcers—DOJ, FTC—do not have enough resources, and Senator Grassley and I have joined forces and actually passed a bill through the Senate to update the merger filing fees that will bring in over $100 million to FTC and DOJ.

That bill is now hopefully in the Innovation and Competition Act that we will soon pass.

I wondered, I know that in your testimony you wrote that appropriately resources, the meatpacking special investigator, that I just asked about, would be a focal point for accountability and enhance enforcement. When you talk about appropriately resourced, what do you mean?

Mr. GREEN. Thank you, Senator. I do not have a specific number today, of course, and I would defer to my budget colleagues. I would point out that we went back and looked at the numbers, and because of the changes in costs and flat budgets we have seen a 40 percent decline in staffing at the Packers and Stockyards Act programs since 2010. A 40 percent decline is quite meaningful. Certainly the President's budget has asked for a 40 percent increase, and I would just leave it at that. We need people to do the hard work and make sure to be able to be responsive and to look at these complicated markets and understand them and be effective.

Senator KLOBUCHAR. You know, another way to look at this, Senator Moran and I have introduced the RAMP-UP Act to help small processors meet Federal inspection standards and expand their operations. We worked on that bipartisan legislation together.

How does investing in new and existing local and regional meat processing help promote fairness and competition? Either of you could take that.

Mr. GREEN. This is about providing choice, Senator. We know that when four companies control 85 percent of the supply that you do not have a lot of choice. We were both out in Kansas and Missouri, hearing directly from producers around take-it-or-leave-it markets.

Expanding the choice, expanding opportunities for local producers to serve local communities is good for those producers and it is good for consumers who want more choice, who want local and regional food opportunities.

Senator KLOBUCHAR. Very good. I will end by just saying this. I have the Competition and Antitrust Law Enforcement Reform Act that really would look at all of our consolidation in our country and would do things like, say, if there is a multibillion-dollar company and a merger that the burden should be shifted so that it is not just the government proving things, that the company has to prove that it does not hurt competition. It does a number of things because of very narrow court rulings in the last decade. It has made it harder and harder to bring these cases.

I do not want to end this without mentioning that while we are doing things industry by industry—I have done work in pharmaceuticals and today we are talking about meatpacking. Clearly we must do something on tech because we have not done one thing. I suggest everyone read the Washington Post editorial today on this subject—and we are moving on a bill.

One of the better ways to do this, in addition to the individual markets—not in exclusion to it, in addition to doing things industry by industry—would be to make some general changes to our antitrust laws, which has happened time and time again in this Nation's history. We did not just rest on the Sherman Act, passed, by the way, by a Republican Senator, Senator Sherman, or the Clay-

ton Act. We kept changing and passing new laws to rejuvenate capitalism.

I will end with what Adam Smith warned about, and that is the standing army of monopolies. While he was known as the Godfather of Capitalism, he always believed that at some point you have to step in.

I want to thank both Senators for holding this hearing.

Chairwoman STABENOW. Thank you very much, Senator Klobuchar.

Senator Hyde-Smith and then Senator Smith. Senator Hyde-Smith.

Senator HYDE-SMITH. Thank you, Chairwoman Stabenow and Ranking Member Boozman, for this very important hearing. The Cattle Price Discovery and Transparency Act and the Meat and Poultry Special Investigator Act, it truly is, as Senator Tester said, a moment in time for rural America and for producers who are out there trying to raise these cattle.

I would also like to thank our panels for being here today. You are very valuable to us, and both sets of panels, this is what democracy is about, to come and solve problems, and to come together and do that.

I am an original co-sponsor of these two common-sense bills, which if enacted into law will bring more fairness and transparency to our cattle markets.

Today is Tuesday. It is sale day in Brookhaven, Mississippi, since 1942. We want to be able to pass this on to generations behind us and to continue to do this, that they can be profitable and it will be a fair market. Producers are such hard workers, and all we ask for is a fair market that we can compete in.

Administrator Summers, you and your colleague, Mr. Green, make a lot of good points in your written testimony. I tend to agree an increasingly consolidated industry structure has given rise to anti-competitive practices that truly does harm independent cattle producers, especially the small producers.

Four large meatpacking companies account for roughly 85 percent of beef sales nationwide, and as a result cow-calf and feeder operations have unlimited set of markets and are left with fewer options selling to those markets. Their cattle and greater risk for unfair playing fields certainly exist, and today's competition challenges in our cattle markets did not happen overnight. We have been at this a long time. These challenges have been decades in the making and did not just come about because of the Holcomb fire, in 2019, nor the COVID–19 pandemic.

Something in the system is broken. Meatpacking companies are bringing home tremendous profits while producer earnings are certainly declining and putting people out of business. The Big Four have increased gross profit shares by 120 percent, while net incomes have surged by 500 percent. How do we explain these skyrocketing profits while input costs are rising?

We write a lot of checks at our house, for fertilizer, for fuel, for chemicals, and we have seen what that does. This is not consistent with the basic economic laws of supply and demand.

I commend my colleagues for crafting these bills, which will promote transparency, accountability, and competitive leverage for these producers.

Administrator Summers, it is my understanding that the USDA AMS, Agricultural Marketing Service, enforces livestock mandatory reporting, LMR, for meatpackers through audits perhaps every six months. If noncompliance is found, AMS will ask the packer to correct the problem. If the packer does not correct the problem, AMS may issue a warning letter or conduct additional audits. Ultimately, AMS can fine the packer $10,000 for each violation if corrective action is not taken after they have been duly warned and asked to do this.

I am pleased that this bill seeks to amend Agricultural Marketing Act of 1946, to increase the penalty from $10,000 to $90,000 for each violation. My question, Mr. Administrator, for one of the Big Four or meatpacking companies that may have an annual net income of $1 billion or more, how much might a $10,000 penalty dissuade them from not complying with the LMR reporting, and do you think increasing the penalty to $90,000, as proposed in S. 4030, could do more to ensure compliance with LMR? I tend to think the penalty could be increased more than that. What are your thoughts?

Mr. SUMMERS. Well, thank you for that question, Senator. You are correct. The Agricultural Marketing Service team audits every packer every six months, twice a year, to ensure compliance is being held by the packers.

We have historically a very high compliance rate. For example, in 2021, our noncompliance rate was less than four percent. Historically we have seen very high compliance, and most of the noncompliance fines tend to be kind of office errors and are corrected very quickly. You are also correct that the penalty amount of $10,000 has been in place since the statute was originally passed back in 1999, so it has been more than 20 years.

I think to build on Mr. Green's points earlier about the need for flexibility, I think increasing the amount of penalty gives the Department, and ultimately, you know, any penalties that are leveled would be leveled by a judge, not by AMS. Having a penalty of up to $90,000 increases flexibility in the event, you know, that noncompliance is found that led to a court action. The administrative law judge would then have that flexibility to determine what that fine is within that range, from $0 to $90,000.

Senator HYDE-SMITH. Thank you very much. My time is up.

Chairwoman STABENOW. Thank you very much. Senator Smith.

Senator SMITH. Thank you, Madam Chair and Ranking Member Boozman, for holding this hearing today. Thanks to everyone for being here.

When you go to the grocery store in Minnesota, the price of hamburger is going up and up and up. Meanwhile, the big beef processors, which control 85 percent of the market, are seeing soaring profits. Minnesota cattle producers, they are making pennies on the dollars while their input prices are also going up and up.

Market concentration is almost always bad for consumers and for farmers and ranchers, and that is the problem we are here today to solve. It is a problem that is getting steadily worse.

Last year I visited the Bagley Livestock Exchange in Bagley, Minnesota, and the folks there told me that we need more transparency in the system. They described how the big players basically can rig the system to make sure that they have better information than the folks that are auctioning off their cattle, and it puts them at a grave disadvantage.

Fixing the cattle markets also is a bipartisan issue. I am grateful for Senator Tester's leadership here, and I also want to thank Senator Fischer and Senator Grassley. I am so glad to be co-sponsoring your bill. This legislation will get more competition and more transparency into the market and is going to help individual producers and consumers.

I want to focus in a little bit on beginning farmers and also farmers of color here, because, I mean, it is hard to make a living in livestock, and it is especially hard for beginning farmers and farmers of color. Lots of high barriers to entry, high prices, and on top of that, it often feels like the market is really rigged against them.

Hannah Bernhardt, who is a beginning farmer in Minnesota, with a young family, has an operation in Finlayson, Minnesota, and she raises hogs and sheep and cattle. She told me what impact this has on her farm. She said, "If you don't know how to create a website and sell direct to consumer and also be lucky enough to have a USDA slaughterhouse that will even work with a small producer, you don't stand a chance against these big companies that control the industry."

Mr. Green and Mr. Summers, I want to ask you about that specifically. Can you elaborate on how the current system places beginning farmers and farmers of color at a disadvantage against these big industry players that have so much market power?

Mr. GREEN. Thank you, Senator. We absolutely know that there is a bottleneck at the center of the supply chain, the cattle supply chain, and a number of supply chains in agriculture and across the economy. When you have that much concentration you both distort the risks and you inhibit market access, and that certainly is going to impact newer farmers, farmers of color, those who do not have the market size to be able to negotiate effectively.

Really, that is what we are trying to do. There is no single silver bullet, but if you deploy a lot of different toolkits, whether it is in investing in local or regional opportunities, modernizing a packers and stockyards toolkit, updating "Product of the USA" labels, and then ensuring that the market structure is one where there is opportunity, there is choice, there is transparency, that is how you increase the competition and you make sure that the market signals—that is what this is about. It is about making sure that folks can participate in the market, that those market signals really flow through, and that everyone that wants to, to be an independent producer, can participate in the market and have the choices that they want.

Senator SMITH. I mean, the essence of a free market is that there is good information. I mean, maybe not perfect information—let us be honest—but good information about what prices are being asked and offered. Otherwise, you are just a price taker. You are almost like a contractor because you do not have any choice really. That

is especially an issue for smaller producers and people just starting, right?

Mr. GREEN. That is absolutely right. One of the purposes of the Livestock Mandatory Report Act, established in 1999, was to balance that asymmetry. The benefits of concentration, one of them is information flow, and information is power. Ensuring that the market is transparent, and the same is true for the Packers and Stockyards Act. All of these competition tools are about balancing information, balancing market power so that everyone has a fair shake, and negotiating, taking advantage of business opportunities as they come available, so they can grow and compete and we can offer better products and services that all of us benefit from.

Senator SMITH. Right. Absolutely. Well, thank you for that. I just want to note, before I close, Madam Chair, that I also think that there is an important role at the USDA for doing research that really gets at the need and helps people to understand what the conditions are of the market. Could you just talk about that briefly? I know this is something that you have talked about with my office.

Mr. GREEN. Yes, and it is absolutely essential. These are complicated issues. These are complex markets. We absolutely need the research tools and the diverse research infrastructure needed to do that. I absolutely commend your interest in this and would love to work with your office on how to enhance those capacities, at USDA and really outside as well.

Senator SMITH. Great. Thank you so much. Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much. I might just say that we do need to strengthen research at the Department. The last administration really gutted so much of the research that is critical for USDA, so hopefully—I know it is something that members on both sides of the aisle care about. Thank you.

I will now go to Senator Grassley—except that Senator Marshall was just up. No, go right ahead. Go right ahead. You almost got bumped, Senator Marshall. Senator Marshall, and then Senator Luján.

Senator MARSHALL. All right. Well, I apologize. Senator Grassley, I do not want to bump a senior member here.

Chairwoman STABENOW. You are in trouble now.

Senator MARSHALL. I am in big trouble.

Chairwoman STABENOW. Yes.

Senator MARSHALL. Well, thank you, Chairwoman.

The good comments I hear from both sides of the aisle is that we agree, there is too much consolidation of industries in this Nation. I think about that, I think that this body is very responsible, that overregulation leads to consolidations of industry, whether it health care or banking or pharmacy or grocery stores or packing plants. I think we need to look in the mirror and say, how is overregulation impacting the situation that we are in right now?

Certainly there is not an issue that I have thought more about and had more phone calls about in the past year or two than this particular issue. I think that capitalism without competition is unfair, and it leads to opportunities for exploitation. Let me say that again: capitalism without competition is unfair, and it leads to op-

portunities for exploitation. Many of us here in this room agree what the problem is but we disagree on how to solve it.

I think the solutions are less regulations and improving competition as well. Specifically, as I start thinking about some of the issues regarding the second legislation that we are looking at today, and Mr. Green, I guess I will ask you, do you lack confidence in the current Packers and Stockyards Division's ability to carry out its duties?

Mr. GREEN. We have a wonderful team. They are working really hard. There are big challenges out there, and there is benefit from reinforcements. One of the tools that a special investigator would offer is sort of a reinforcement toolkit that helps us bridge the range of challenges that go all the way from the investigation and the analysis all the way to be able to——

Senator MARSHALL. Your actions would suggest that the current Packers and Stockyards' ability, that you do not have confidence in it, that you need to expand it.

Mr. GREEN. It is not that I lack confidence. It is that we have got a lot to do and a lot of complex issues, and we can only do so many things at a given time.

Senator MARSHALL. I have just got to tell you, it scares me when this government starts throwing more money and forming more committees, and what some of the unintended consequences of that is going to be. The current Packers and Stockyards Division has the authority and the charge of investigating competitive matters. Why do you believe establishing an entirely new office within USDA is necessary?

Mr. GREEN. When the Packers and Stockyards Division investigates a case it then works with our Office of General Counsel to package it. It often then has to work with the Department of Justice to bring these cases. There are some efficiencies to be had by having a new office that, if appropriately resourced, would enable us to work across all of those areas to bring these cases more effectively, and to be able to have the accountability for what the staffing and the resources we have to do that.

Senator MARSHALL. Okay. I want to talk about solutions, solutions that we are suggesting. One of them is the misnomer "Product of the USA," and I think you mentioned that. We have offered legislation that would replace that with voluntary labeling, "Processed in the USA," or "Raised and Processed in the USA," or "Born, Raised, and Processed in the USA."

I think especially for small packing plants—you know, I grew up, every little city had their own packing plant, and now maybe one out of ten of those cities have a packing plant. We have overregulated them. We allowed beef to come in from Brazil with less restrictions on our own packing plants, preferably going from across State lines is what one of my big concerns are. I want safe food—of course we want safe food—but I think there are some ways we can allow those small packing plants to sell across State lines.

Do you think that reusing, getting rid of this "Product of the USA" label and replacing it with what we are suggesting would be helpful?

Mr. GREEN. We certainly share your concerns about whether a consumer, when he or she walks into the grocery store and sees

"Product of the USA," whether they are getting what they think they are getting. We have launched a review. We are in the middle of that. We have got to make sure that we really understand the consumer understanding, the consumer experience, and we want to understand the economic impacts.

We are committed to making sure we address those concerns to the greatest degree we can.

Senator MARSHALL. Again, we are forming committees, we are praying about it. This has been a very easy issue that we could fix that could help consumers.

Thank you so much. I yield back.

Chairwoman STABENOW. Thank you very much. Now Senator Luján, and then Senator Grassley.

Senator LUJÁN. Thank you very much, Madam Chair, and to our Ranking Member, thank you both for holding this important hearing, and to all of our colleagues who have been working on this important issue and for reaching out to me and the State of New Mexico. It is very appreciated.

My opening questions, Mr. Green, were along the lines of what Senator Klobuchar and Chair Stabenow already touched on, so I am not going to repeat them. I do want to jump into a couple of other areas with meat labeling.

As consumers continue to become more invested and interested in knowing not only how their food is produced and grown but also where it comes from, the New Mexico farmers and ranchers I speak with are proud of the products that they grow and raise, and the hard work to bring quality, nutritious, and sustainable products to market.

The issue of meat labeling continues to be a hotly debated topic, and I was disappointed that the issue was not resolved during the renegotiation of the U.S.-Mexico-Canada Free Trade Agreement.

Now with that being said, Mr. Summers, your testimony mentions the Administration's review of the "Product of the USA" label and how that can be helpful in ensuring a fair and competitive marketplace. What impacts do current loopholes and a lack of a strong labeling system have on American producers, on their ability to not only get fair prices for their products, but their ability to meet consumer preference that the meat be raised and processed in the United States?

Mr. SUMMERS. Thank you for that question, Senator. The labeling issues that you referred to are really under the purview of my colleagues in the Food Safety Inspection Service rather than the Agricultural Marketing Service, but I might defer to my colleague, Andy Green, and see if he has comments on that.

Mr. GREEN. Thank you, Mr. Summers. Senator, I would highlight that there are a wide range of products that are currently covered by mandatory country-of-origin labeling. The Congress has recognized that and the USDA enforces that on a regular basis.

With respect to the two products that are not covered by that, they are covered by a "Product of the USA" label that is under the Food Safety Inspection. We certainly have heard a number of concerns and challenges. We have heard it from consumer groups, we have heard it from producer groups, that they feel that they are not getting a fair shake. When you walk into the grocery store,

when you look at something that says "Product of the USA," does the consumer understand what that means, that it is a process and it does not speak to the origin of the meat itself?

We think it is essential that we make sure that we do that consumer testing to make sure we really understand what do consumers think when they approach the shelves, and we think that if we get it right for consumers that that is the foundation for making sure that the market signals from the consumer flow through effectively to enable competition to work.

Senator LUJÁN. I appreciate that. Mr. Summers, in your filed testimony you did talk about the Administration's review of "Product of USA" label for meat. Is there anything else that you would add to that response, based on the filed testimony?

Mr. SUMMERS. With respect to labeling of food products, we do, in AMS, enforce the country-of-origin labeling standards. That does not apply to beef. That was changed in 2015. I do not have anything to add to, I think, what Mr. Green has said.

Senator LUJÁN. I appreciate that. I would love to chat with you a little bit more about complexities that were created after the change and what resulted after 2015 with that shift, and what has resulted in the market that we have today and the increased questioning that I hear from New Mexico producers, at the very least.

New Mexico farmers and ranchers pride themselves on the local products they produce and provide to our communities. Their ability to produce value-added goods creates opportunities for farmers and ranchers to receive better prices for their products while allowing them to reinvest more wealth into the communities that they serve.

Mr. Summers, what are some of the more common barriers preventing the development of value-added agriculture operations in rural communities across America?

Mr. SUMMERS. Well, I would think certainly startup costs. You know, there are a lot of costs associated with starting some of these value-added operations, especially when you are talking about processing. I think that is why the Administration has made investments through some of our grant programs here in the last year or so, the $4 billion that the Chairwoman mentioned earlier.

I think that type of capital investment is an important part of helping these value-added businesses get up and running.

Senator LUJÁN. I appreciate that. I mean, that is a conversation I hope we can have, because as we all know, whether it is our families or other families, everyone has those family recipes. I have been encouraging some of those producers across New Mexico and other States I visited who produce spirits but may not be licensed. I remind them they can get licensed now, and there is added value there, and they can be doing a whole lot more.

Whether it is a jelly, it is a salsa, it is whatever it may be, there is added value, and there are incredible job opportunities in every corner of our country here. I hope that is something we can tackle and that we can look at creating some more incentives for.

I very much appreciate that, and thank you for the time, Madam Chair.

Chairwoman STABENOW. Thank you very much, Senator Luján. You are making me hungry with salsa and jams and so on. They all sound great.

Senator Grassley, I think you care about this issue. Senator Grassley.

Senator GRASSLEY. First, a UC for a letter from Iowa Cattlemen, and an article from Agri-Pulse.

Chairwoman STABENOW. Ordered, without objection.

[The letters can be found on pages 504–507 in the appendix.]

Senator GRASSLEY. Second, a great big thank you to you and the Ranking Member for setting this up and helping move this legislation along.

In a nutshell, everybody is talking about competition. We are talking about bringing competition to an industry dominated by four packers and a cozy relationship with the big feedlots of four or five States, and they want to keep their chain moving. They do not care whether there is room for any independent producers or not. They, in turn, then do not care whether those cattle are owned by Wall Street bankers or farmers, and the independent cattle producers in the Midwest are being hurt.

It is important that we look back at how we get to this critical turning point. As the livestock industry became increasingly concentrated in the 1990's, fewer animals were sold through negotiated purchases. When mandatory livestock reporting was first considered in 1998, it unfortunately did not get very far. The American Meat Institute bragged in publications and about how they killed the bill by hiring high-powered and well-connected lobbyists. Those same organizations that worked for the big meat processors in the 1990's are the same as those who are lobbying against this market reform today. Luckily, Senator Daschle did not give up. He stayed with the case, and we now have mandatory livestock reporting passed soon after 1998. Nobody argues with that legislation today.

In 2002, I first introduced a spot market bill with Senator Feingold. Since 2002, we have seen more consolidation and vertical integration in the cattle market. There is now even greater use of alternative marketing arrangements, resulting in higher volatility swings.

It always ends the same: more profit for the packers and independent producers going out of business. Market reform is needed right now. Just as Senator Daschle did not stop in the 1990's, I do not intend to stop until these bills become law, and I would like to have my colleagues join us in this effort.

To Administrator Summers, do you believe that the USDA Marketing Research Service has the expertise and knowledge to implement this legislation?

Mr. SUMMERS. Yes, Senator. We believe we do have the expertise and knowledge.

Senator GRASSLEY. Thank you. A report from the University of Nebraska, the USDA cattle region with the highest cattle grading is Iowa and Minnesota regions. Over 94 percent of the cattle in that region grade over 80 percent "choice." This compares with less than 13 percent from Texas, Oklahoma, and New Mexico. Our opponents point out that alternative marketing arrangements are

needed to capture the value of better genetics. Iowa and Minnesota leads in genetics and also leads in cash sales.

Mr. Summers, can you confirm the information in the Nebraska study that the Iowa and Minnesota region is the best region for the quality of cattle?

Mr. SUMMERS. I can certainly confirm that Iowa producers produce very high-quality cattle.

Senator GRASSLEY. Thank you. The DOJ is investigating the Big Four packers. USDA, Commodity Futures Trading Commission, and multiple State attorneys general are conducting investigations as well. We have seen GBS settle for $42 million for anti-competitive practices. There have been other meat segments that have pled guilty to suppressing competition.

Investigations are very important. Greater coordination between USDA and Department of Justice is needed. Still, without market reforms, we will likely continue to see Big Four vertically integrate, destroying family farmers, and raking in record profits.

Mr. Green, if marketing reform is not enacted, do you anticipate that we will continue to see vertical integration in the fed cattle market?

Mr. GREEN. Yes, sir. The trend lines have certainly been in that director and they are significant vulnerabilities of the market, which is why we are here for this conversation today.

Senator GRASSLEY. Thank you. I yield back.

Chairwoman STABENOW. Thank you very much.

Next we have Senator Bennet, and then Senator Fischer. Senator Bennet.

Senator BENNET. Thank you, Madam Chair, and thank you for holding this hearing, and I thank the Senators for their interest in this.

My State, Administrator Summers, is one of the five livestock mandatory reporting regions, but the price information generated by cattle trades in Colorado is rarely reported to the public. As I understand it, this is a result of your agency's rules of confidentiality, specifically something referred to as the 3/70/20 guideline.

Administrator Summers, can you explain this guideline and elaborate as to why USDA has confidentiality rules if they so often prevent the publication of data that is collected in Colorado? Additionally, has the agency looked at new ways to conceal proprietary business information in a way that allows our information in Colorado to be publicly reported? If so, can we expect to see any of those ideas implemented soon?

Mr. SUMMERS. Thank you for that really important question, sir. It is kind of the crux of the matter, in some cases, right?

Senator BENNET. Thank you.

[Laughter.]

Chairwoman STABENOW. He is going to get a big head, Mr. Summers.

Mr. SUMMERS. I apologize to the rest of the Committee.

Sir, we have heard a lot about the problem in Colorado. The statute, the Mandatory Livestock Reporting statute requires USDA to maintain confidentiality of all parties to a transaction, buyers and sellers. We cannot release proprietary information, by the statute.

Several years ago, we developed a policy and a guideline that we published in the Federal Register, as you referred to, the 3/70/20 rule, which basically requires certain parameters to be met and we can guarantee the proprietary nature of the data is protected. In Colorado there are two packers.

Senator BENNET. Right.

Mr. SUMMERS. The "3" in that 3/70/20 rule refers to the need for three packers, three buyers, to be involved in the marketplace so we can report data, and that is why about 90 percent of the time in Colorado we cannot report data and protect the proprietary nature of that information.

Senator BENNET. Are there any other ideas for what alternatives—because my understanding is there are some places where sometimes there are three packers, sometimes there are two packers. You know, things go up and down, depending on what is going on in the cattle market. That has not been true in Colorado, obviously, for a long time, this is the main reason why we cannot get price transparency or discovery.

Mr. SUMMERS. There are very few times when, in Colorado, a third packer from a different region would come in and buy Colorado cattle. When they do, we report the data.

The regions, as they were established many, many, many years ago, before I was the administrator, were established-—I think even it may go back to when it was voluntary. Time has changed and things have evolved, and that is why we now struggle with being able to meet the confidentiality standards in Colorado.

Senator BENNET. I think that is one of the things we are going to have to work through as we think about this legislation. I mean, my State is a region, and we do not know what the implementation of this is going to look like for us, going forward, and that matters a lot to us. I appreciate that.

Mr. Green, it is nice to see you again. We see each other regularly on the Banking Committee. It is good to see you back.

Competition is key to any healthy and properly functioning marketplace. I have strong concerns that only four meatpackers control 85 percent of fed cattle processing in this country. One of the bills we are discussing today creates a new Special Investigator Office at USDA, that has been discussed.

Do you believe that this will resolve those concentration issues that we are seeing in the beef cattle industry, and if not, what other things do we need to be considering to actually get at that issue, which is the intense market concentration that exists among the packers in this country?

Mr. GREEN. Thank you, Senator. It is an honor and a privilege to be here, as well, working on these issues.

There is no single silver bullet. This is a complex market. We are deploying as many of the tools as we have available. I think we absolutely believe that a special investigator is one part of that puzzle. It can add accountability, if appropriately resourced. It can enhance our ability to do the complex investigations that are really needed.

We also recognize that we have got to be investing in new processing capacity, because that is directly increasing the choice that producers have out there. We want to be using the consumer trans-

parency tools, the "Product of the USA," and we have got a review going there. A lot of different tools. We are partnering with DOJ, and certainly considering important reforms like we are this morning on cattle markets, more generally. We are taking a kind of all-of-the-above approach to addressing that supply chain constraint.

Senator BENNET. Thank you, Madam Chair.

Chairwoman STABENOW. Absolutely. Thank you so much. Senator Fischer and then Senator Booker. Senator Fischer.

Senator FISCHER. Thank you, Madam Chair, and thank you, Ranking Member Boozman, for holding this hearing today.

As all of you know, Nebraska is the beef State. I represent every segment of the supply chain, from cow-calf producers to backgrounders to large and small feed yards. Also we have three of the four big packers in the State of Nebraska. The livestock industry contributes $13.8 billion to Nebraska's economy annual. It is the economic engine of my State.

I first introduced legislation nearly two years ago after hearing concern from cattle producers in Nebraska but also all across this Nation. Senator Grassley has introduced legislation for 20 years. This is not a new issue. This is not an issue that came about due to COVID. It has existed for years.

The goal of this legislation has not changed. We want to ensure every segment of the beef supply chain can succeed, by ensuring robust price discovery and market transparency. We know negotiated transactions involve a bid and an ask. They facilitate price discovery to establish the going rate for cattle. We also know negotiated transactions have drastically declined over the past 20 years. The decline has been especially pronounced in some regions of the country.

I understand the value of AMAs. They can provide economic returns and operational efficiencies. However, AMAs rely on the negotiated market, often using publicly reported cash price information to set their base prices. Producers groups almost uniformly acknowledge concern about cash price information becoming too thin. Over the past two years we have witnessed voluntary industry efforts to increase negotiated trade. While there was some success, ultimately, by the industry's own standards, these voluntary efforts failed, and they failed because of packers' lack of participation.

When we look at this we can understand this is why we are here today. We know more market transparency and price discovery is needed, and I am pleased that we have half of this Committee as co-sponsors of this bill. Working in a strong bipartisan fashion with my colleagues from all the around the country, our legislation will address these issues.

Madam Chairwoman, I have a letter of support from the Nebraska Cattlemen about the need for robust price discovery and market transparency. I wish we could have had a Nebraska producer here, but as is noted in their letter, quote, "None of our producer members we encouraged to testify were willing to put themselves out front for fear of possible retribution by other market participants, an unfortunate reality of today's cattle industry," end quote.

This concern demonstrates an imbalance in market power. Chairwoman Stabenow, I would ask for unanimous consent to submit this letter from Nebraska Cattlemen into the record.

Chairwoman STABENOW. Ordered, without objection.

[The letter can be found on page 508–512 in the appendix.]

Senator FISCHER. Thank you. I would also like to highlight a series of articles from the Omaha World-Herald. The latest article discusses that producers' share of the beef dollar has continued to decline while the packers' share went up 31 percent last year.

Some today will claim that the seller is in the driver's seat. We all know how out of touch that statement is. If cattle producers were in the driver's seat, they would set a price and the packer would take it. Instead, producers take the price that is offered by the buyer. Producers face a take-it-or-leave-it market. That is the reality.

Chairwoman Stabenow, I would ask for unanimous consent to submit these articles from the Omaha World-Herald into the record.

Chairwoman STABENOW. Ordered, without objection.

[The letters can be found on pages 513–523 in the appendix.]

Senator FISCHER. Mr. Green, in June 2021, USDA's Agriculture Marketing Service released a report that indicated 18 percent of AMAs have no premium or discount associated with them. I agree that AMAs may be important to certain value-based marketing systems, but there are a large number of cattle procured through AMAs to reward quantity, not quality.

Is it correct that there are a sufficient amount of AMAs that are not tied to any quality or value-based attributes, and can you speak to other marketing methods, such as negotiated grid, which is in this bill, that can contribute to price discovery while also rewarding quality?

Mr. GREEN. Thank you, Senator. I cannot specifically speak to that particular report, but it is absolutely the case because we put out numbers in June, that we now can see the distribution of cattle, net prices in AMAs, and we have learned a lot from that, including that there are some that have very high premiums of discounts and some that are really very close to the cash negotiated price.

I would absolutely also agree that the negotiated grid—I was just out in your neighbor State, Kansas, and also in Missouri, and hearing a lot of excitement about negotiated grids as something that producers are interested in exploring more of, because they do enable the discounts yet also enable that negotiation around the base price.

It is absolutely important to making sure that prices discovery is a common good—everyone recognizes that—and that the contributions for that, and we have the market we need so that the price can actually be set and so that producers really have choice and competition.

Senator FISCHER. Okay. Thank you. Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much. Senator Booker.

Senator BOOKER. Madam Chair, I am going to state, unequivocally, that New Jersey is not America's biggest beef producing State.

Chairwoman STABENOW. I am so glad you clarified that.

Senator BOOKER. I think it is very important to know. I will say this. In all of America there is no vegan more passionate about fighting for American ranchers than me.

Chairwoman STABENOW. All right.

Senator BOOKER. Our ranchers are not getting justice in this country. I want to sign on to what Senator Luján says. It is utter deception to American consumers that we do not label products of the USA as "Product of the USA." You let Mexican cattle come into our country, be processed by these big, multinational corporations, and we label this "Product of the USA." That is outrageous. That is lying to consumers. That is deceptive practices, and it should end because ultimately it is hurting American ranchers. I appreciate that.

The stunning thing that my colleague from Nebraska said—I just do not understand how stunning what she said is, but we are almost normalizing it. I found the same thing when I visited with American ranchers in Illinois. The fact that they are afraid to come here to testify because of the outrageous power of these consolidated meatpacking companies is just a testimony to the unacceptable inaction of Congress over the last decade or two, to allow these meatpacking companies to continue to consolidate.

They have reason to be afraid. As Senator Tester said, 40 percent of U.S. cattle producers have gone out of business, not because they are not good businesspeople, but they have gone out of business because of this incredible corporate consolidation. Nearly half of our ranchers have been forced to sell their herds and their land, land that, in many cases, has been passed down from generation and generation by their families. These are great American entrepreneurs being forced out of business by this growing consolidation of these multinational corporations.

Four of them, four meatpacking companies—Tyson, Cargill, JBS, and National Beef—have corrupted the marketplace using unfair and unlawful practices. This has got to stop. It is hurting great Americans. It is hurting our industry. We have seen the devastation to farmers in the poultry and pork industries, that happens when big packers take control and pervert our free market system. Unless Congress acts quickly, that is where the beef industry is now headed.

I am glad that we are here today talking about solutions to this problem, but I am concerned that Senate Bill 4030 does not go far enough to address the dire state of cattle markets today. I look forward to the opportunity to continue working to improve this legislation as it moves forward. While the bill gives the USDA two years for implementation, I would hope that the USDA will move much more quickly, given the emergency situation that exists in our cattle market.

I have talked to incredible cattle ranchers who are struggling to stay in business right now. Two more years of the current system is so unfair. Our cattle ranchers are being hurt on so many ends,

from deceptive labeling practices to the problem with corporate consolidation.

Mr. Green, I am so happy you are here. In order to stop these multinational meatpackers who are manipulating our system, perverting the free market, deceptively marketing to Americans in my State, enabling stop manipulating the cash markets, one step I believe Congress should take is to require the AMAs to contain a firm base price that can be determined on the date the contract is entered into. Do you agree that requiring AMAs to have a firm base price would enhance price discovery, transparency, and producer leverage?

Mr. GREEN. Thank you, Senator. That is an important idea that we are thinking about. We are considering it. I do not have a specific answer for you today. I would highlight a couple of points, that we saw during the pandemic that when you did not have a market, that base price collapsed, and it hurt everyone.

It is absolutely essential. That is one of the reasons why we are having the conversation today, to make sure that we have markets setting these prices and not having them declared on high in a take-it-or-leave-it manner.

Senator BOOKER. Okay. My time has expired, but I just want to say, we have watched what has happened to the pork and the poultry industry and how great traditions of farmers and ranchers in this country have been perverted by corporate concentration. These contract farmers live almost like sharecroppers, in constant, outrageous debt.

If we continue to let the cattle industry go in that direction we are undermining yet another great American tradition, and great Americans who are working so hard but seeing their margins shrink and shrink, and now live in fear because their parents and grandparents had multiple people competing for their cattle, now it has shrunk so much that they are worried to even speak the truth here before Congress because of retaliation. That is so unamerican. That is so against capitalism. That is so against the free market. The urgency for us to do something quickly, because every day we wait, more ranchers are going out of business, not because they are not good businesspeople but because the market has been so perverted that they cannot compete. That is unacceptable to me.

Chairwoman STABENOW. Thank you very much, Senator Booker. We have Senator Tuberville, Senator Brown, Senator Hoeven, and Senator Gillibrand. I would remind you we have another great panel that we need to hear from as well.

Senator Tuberville.

Senator TUBERVILLE. Thank you, Madam Chairwoman and Ranking Member. Thank you very much. This is a very important topic. I have spent days and days with my State, talking about this bill. You know, we are up and down with it, back and forth. I leave it all to my ranchers back home, which we should, because they are the ones that are affected with this.

You know, back home in Alabama, we produce cattle in every county, 67 counties, $2.5 million a year industry. Alabama cattle producers have made it clear to me they do support actions in our cattle markets to help facilitate better price discovery for cattle sales and transparency in the marketplace.

However, these bills as presented before the Committee today are not the answer for those that I represent back in Alabama. On the bill which creates the Office of Special Investigator for Competition Matters at USDA, I believe the Secretary currently today—has the authority to address these issues, and adding another level of government is not the answer. We need less government, not more. Considering the importance of the cattle industry in my home State and across the Nation I hope we can all work together as a Committee, and with all sides involved in the cattle markets, to increase transparency and free market competition without imposing overreaching government mandates.

Mr. Summers, if enacted, the Cattle Price Discovery and Transparency Act would divide the entire United States into five to seven categories, geographically, each of which would be subject to mandatory minimum thresholds of government-deemed, approved pricing mechanism. My question is related to the actual implementation of this type of legislation and what concerns it could pose for your agency.

The most recent Cattle on Feed report from USDA's National Agricultural Statistics Service shows that nearly 97 percent of the fed cattle are found in 1 of 12 States. In fact, of the 12 million head of cattle on feed, as of March 1st—of this year, only 295,000 head could be found outside those 12 States, the easternmost of which are Iowa and Minnesota. As an example, I do not see how the agency can form a region out of the eastern United States given that there is only one meatpacking facility, as defined by the bill, and virtually no significant cattle feeding sector, and this is just one example.

How does your agency plan to develop these regions, given these immense difficulties?

Mr. SUMMERS. Thank you for that question, Senator. AMS has a lot of experience in implementing new programs. Two most recently that come to mind would be the Hemp Production Program, Bioengineering Food Disclosure Labeling Program, both brand new, big programs. I bring those up because they involved extensive rulemaking.

To implement this bill, if it were to become law, we would do that through a rulemaking process. It would rely almost entirely on public input. In other words, AMS USDA would publish a proposal based on input and review of data and collaboration across the Federal Government, but ultimately that proposed rule becomes what the public, all of our stakeholders, from academic to producers to packers to backgrounders, everybody that is interested in this provides public comment.

I expect we would receive thousands and thousands of comments. It is a very deliberative process. It is a very formal process, the end result being it may be a proposal from USDA but a very engaged community of stakeholders working to reach that final rule, based on the intent of Congress and whatever bill ends up being passed. I am sure it would be extensive stakeholders feedback through that rulemaking process.

Senator TUBERVILLE. Thank you. I am going to be out of time so I will submit some questions for the record. Thank you, Madam

Chair. It kind of concerns me when you brought up academia involved in cattle. It really does. Thank you very much.

Chairwoman STABENOW. Thank you very much. I believe we have Senator Brown with us virtually.

Senator BROWN. Thank you, Chair Stabenow. I really appreciate it. Mr. Green, good to see you again.

I want to first thank Senator Tester—the Chair, Senator Stabenow, and also Senator Tester—for his work on this bill. Senator Tester sits with me on the Banking and Housing Committee, which I chair, and I am ducking out of because this Committee and this hearing is so important. I called him out today because we were talking to the Consumer Bureau. We were having a hearing with Rohit Chopra, the Director of the Consumer Protection Bureau, and Senator Tester's work on this issue reminds me so much of the work we have done on consumer banking issues.

The testimony today, Mr. Green, mentions the need for legislation like the two bills being discussed today, to be, quote, "appropriately resourced." Until the recent omnibus, funding for the Packers and Stockyards Act, as you know, has been flat since 2010. How has that inhibited your ability, USDA's ability, to act on behalf of farmers, particularly in the face of just the increasing corporate consolidation?

Mr. GREEN. Thank you, Senator Brown. It is great to see you and be here, as well. You know, as you know, we have had flat resources, and the reality has meant a 40 percent decline in the staff within the Packers and Stockyards Division, the Packers and Stockyards Program. That does not also even count the constraints on our Office of General Counsel, which we depend on heavily.

When you have a smaller staff there are certain aspects of nimbleness, but we certainly would benefit from the ability to engage in the more robust analysis, to do the more complex investigations, and to be able to cover more ground, because these are challenges that producers are feeling every single day, and if we are not out there enforcing the rules you do have significant risks that producers are not getting a fair shake and they are not feeling like they can participate in hearings or speak their voice, as Senator Fischer highlighted.

We believe resources are absolutely essential, and I appreciate you asking that question of us.

Senator BROWN. Thank you, Mr. Green. Administrator Summers, I am going to switch to you and then back to Mr. Green for a third question.

Administrator Summers, what kind of funding and additional tools does USDA need to beat back the unfair business practices and ensure that farmers, ranchers, and all consumers are getting a fair shake? We know from consolidation in the cattle business, four companies—Senator Tester tells us all the time—four companies, 80 percent of the beef sales, and what that means for ranchers, on the one hand, cattlemen on the one hand, and what it means for consumers on the other.

What kind of additional tools do you need to beat back these unfair practices?

Mr. SUMMERS. Thank you for that question, Senator. With respect to, I think you asked about funding. It broke up a little bit

and I was not quite sure. With respect to funding, we have not had the opportunity to develop that. I think we are still looking at that and we would have to get back to you.

With respect to the tools and kind of the reasons why, you know, as companies have gotten bigger, issues have gotten more complex. Companies sometimes that we are looking at investigating, the scope of the investigations are tremendous, and that is why we need additional resources. We need not just people. We need expertise and we need knowledge and we need to adjust, I think, some of the specialties within our staff to meet the needs of what is really the modern marketplace.

Senator BROWN. Thank you, Mr. Summers. The last question, Mr. Green. A lot of factors go into pricing cattle, as you know—transportation, grain prices, financing. What role could the Cattle Contract Library play in enhancing transparency and promoting free markets?

Mr. GREEN. Thank you, Senator Brown. It is absolutely essential. As we provided in August, two new reports into the formula transaction around the net pricing. As you highlight there are a lot of factors that go into whether that net price really reflects the price being paid to cattle, whether it is transportation or financing or risk-sharing or other things.

Having the transparency through the Cattle Contract Library, that is part of this legislation, that is part of legislation that has passed the House. Those are useful tools to help producers have the transparency they need, be able to make good business decisions that work for them.

Senator BROWN. Thank you. Madam Chair, thank you very much. I yield back the last 25 seconds. Thank you.

Chairwoman STABENOW. Thank you very much. Senator Hoeven.

Senator HOEVEN. Thank you, Madam Chair. I appreciate it. I appreciate you holding this hearing today.

In the Ag Approps Bill this year for 2022 we included $1 million for a Cattle Contract Library Pilot Program to be administered by the Ag Marketing Service. Mr. Summers, can you give us an update on implementation of that Cattle Contract Library.

Mr. SUMMERS. Yes, sir. Thank you for that question. We have started. As Mr. Green has referred to a couple of times, we took a team from AMS and we went to Kansas City last week, and we did a public meeting and invited stakeholders from across the livestock sector to come and visit with us about what they would like to see in this Cattle Contract Library Pilot.

We have started the design phase. We have started collecting information from our stakeholders. Congress did exempt us from notice and comment rulemaking for the development of this pilot, gave us until September 30, 2023, to get the pilot up and running. We believe we will meet that deadline, no problem, and also believe we will have a chance to operate this pilot for several months, so we can learn from it and then hopefully come back, and if the Committee is interested, talking about the lessons learned from the operation of that pilot and how it may inform future Cattle Contract Library, if Congress decides to pass that legislation.

Senator HOEVEN. You say launch in September 2023. Can you get it done before that?

Mr. SUMMERS. Well, 2023 is when the money expires. We are going to get the pilot up and running before that.

Senator HOEVEN. When do you think you are going to launch it?

Mr. SUMMERS. I hope by the first of the year.

Senator HOEVEN. By the first of the year. Then you will be back to tell us how it is going, right, how it is going to work and how it is going?

Mr. SUMMERS. I think that is the reason for a pilot.

Senator HOEVEN. Yep. First of the year and you will let us know how it is going. That is good to hear and very much appreciated.

How about as far as making it permanent, will you also have a sense of what kind of additional resources that you will need to do that? As you know, part of this bill is setting up a permanent program. Do you see this pilot program transitioning into a permanent program, and what do you need to do to make it work, and what resources do you need to make it work?

Mr. SUMMERS. I think the pilot would inform a permanent Cattle Contract Library, if we get the legislation that establishes a permanent Cattle Contract Library. It would definitely inform not only how we provide the information but also the resources needed to operate it.

Senator HOEVEN. Right. It would get you off and running, which is going to set up another question I have here in just a minute.

First, so the Fischer-Grassley bill provides broad authority for the Ag Secretary to set minimum levels of negotiated cash trade transactions throughout the country. How are you going to go about setting up these minimum thresholds by region for these cash transactions, and making sure that there is good transparency and that, of course, it benefits the producer in terms of price and competition?

Mr. SUMMERS. We will do that through the collaboration called the rulemaking process, notice and comment rulemaking process. In my earlier response I neglected—we have a proposed rule but there is also a Regulatory Impact Analysis, so we will work with the Office of the Chief Economist to look at the costs and benefits associated with implementing the law.

It will be done transparently and in collaboration with our stakeholders, and certainly we would like to continue to work with Congress as we develop what is going to be a fairly complex undertaking to establish those regions and the mandatory——

Senator HOEVEN. Right. You want people to have confidence in it.

Mr. SUMMERS. Absolutely.

Senator HOEVEN. Mr. Green, again, you are talking about—this goes back to a question that I asked just a minute ago. If Fischer-Grassley moves, Secretary of Ag had a two-year window to establish regions and define mandatory minimum levels of negotiated cash trades for each region. A lot of our folks think that is too long, that you need to do it sooner, that you need to get going. Would you respond to that?

Mr. GREEN. We are getting——

Senator HOEVEN. Mr. Summers is trying to help you, set you up here, get you a running start. It sounds to me like he gave all the right answers.

Mr. GREEN. I never disagree with Bruce. If Bruce is there, I am there. We want to get it up and running. We are trying to understand the market on a real-time basis. We were both meeting with, you know, a whole range of folks just last week out in Kansas City. We are committed to moving as fast as we can.

A lot of outcomes depend on implementation, and so it is important to be fact-based and input-driven. We want folks to have a chance to talk to us. There is a balance there.

Senator HOEVEN. You have no doubt you can do it sooner.

Mr. GREEN. We are going to work as hard as we can.

Senator HOEVEN. Sounds like a yes.

Mr. GREEN. Yes, sir.

Senator HOEVEN. Thanks to both of you. I appreciate it.

Mr. GREEN. Thank you.

Senator HOEVEN. Thank you, Madam Chair.

Chairwoman STABENOW. Thank you very much.

Thank you to both of you. We appreciate it. As you can tell, this is of great interest to Committee members.

We are now going to move to our next panel of witnesses. We appreciate your patience. We will move quickly to that. I know we have members on the Committee that are going to be introducing witnesses from their State so we want to proceed to do that as folks are coming up to the table.

As soon as we are set, I will turn to Senator Hyde-Smith to introduce our first witness on the panel, as soon as we have folks all situated. Thank you so much.

Senator Hyde-Smith, if you would proceed. Thank you.

Senator HYDE-SMITH. Thank you, Chairwoman Stabenow and Ranking Member Boozman, for providing me the opportunity to introduce one of our witnesses on Panel 2, Mr. William Ricky Ruffin. We refer to him as Ricky, of Bay Springs, Mississippi. Ricky is testifying on behalf of the United States Cattlemen's Association and I have known him for many years. He is a cattle producer. He is an attorney and a strong member of the Ag community in Mississippi. He has been a great leader for us.

He manages a herd of brood cows and runs stocker cattle on wheat and rye grass. He is a 40-year member of his county and State Farm Bureau chapters and will provide valuable perspective to this Committee regarding the challenges facing cattle producers in the Southeast.

Thank you very much for being here today, Ricky.

Chairwoman STABENOW. Thank you so much. Welcome.

We will now turn to Senator Marshall to introduce the witness from Kansas.

Senator MARSHALL. Well, thank you, Madame Chair.

I am certainly honored today to introduce Shawn Tiffany. Shawn, thank you so much and welcome to our hearing.

Shawn and his brother, Shane, co-own Tiffany Cattle Company. I think that you all would agree with me that Shawn has got to live the dream of running a family company and living out his American dream. They started in 2007 after they purchased a feedlot that their dad had managed for several years near Herington, Kansas. Herington, Kansas is about 30 miles from my mom's family's farm. I am very familiar with the area.

They built their business from feeding 2,500 head of cattle annually to now finishing approximately 70,000 heard per year. They went from 10 customers to over 200 customers. Every successful business has a vision, a mission, and values and I certainly appreciate Shawn's values: faith in God, integrity, stewardship, trust, and diligence. We look forward to his testimony.

Again, thank you so much, Shawn, and welcome.

Chairwoman STABENOW. Thank you so much, and welcome.

Now Senator Hoeven, our witness from North Dakota.

Senator HOEVEN. Thank you, Madame Chair. It is my privilege to welcome fellow North Dakotan to the Committee today, Ms. Shelly Ziesch.

Shelly is a fourth generation rancher from Pettibone, North Dakota. Along with her husband, Robin, she owns and operates Ziesch Ranch, a diversified farm ranch where they raise beef cattle, corn, wheat, oats, alfalfa, and soybean, about 600 head which, up until recently, she and her husband were doing all by themselves, which I find remarkable. Now she has a daughter and son-in-law in there, so that is really great, the next generation. They also farm about 2,000 acres.

She serves on the North Dakota Farmer's Union Board of Directors since 2018. Three daughters, two involved in ranching and, as I say—well, one has already returned. Is that the one that just graduated? Or do you have another one that might come back?

Mrs. ZIESCH. There is another one that might come back.

Senator HOEVEN. That is great. We are all about getting young people into farming and ranching.

We really want to thank her for being here today. I think she will have a lot of really good information for us.

Thank you, Madam Chair.

Chairwoman STABENOW. Absolutely. Thank you, and welcome.

Senator Bennet.

Senator BENNET. Thank you, Madam Chair, and thanks to Ranking Member Boozman, as well.

I am pleased to introduce a fellow Coloradan, Dr. Stephen Koontz, as one of our witnesses this morning.

Dr. Koontz is a professor in the Department of Agricultural Economics at Colorado State University in Fort Collins.

Before moving to Colorado, Dr. Koontz served on the faculty at Michigan State University and Oklahoma State University. He earned a Bachelor's and Master's Degree in Agricultural Economics from Virginia Polytechnic Institute and State University, along with a Ph.D. in the same subject from the University of Illinois.

Dr. Koontz has spent a total of 32 years in academia, including 24 years at CSU, where his research has principally focused on the markets for livestock and meat products. On several occasions, he has helped USDA write in-depth studies on consolidation and marketing in the beef industry.

Now Dr. Koontz has generously offered to make his expertise available to the Committee as we consider the Cattle Price Discovery and Transparency Act.

I am still learning about the bill but here is how this issue looks from Colorado: in my State there is a consensus that we have had

too much consolidation in the meat packer industry. It is bad for consumers and it is terrible for independent cattlemen.

Colorado wants more buyers of all sizes to strengthen competition and level the playing field. We want a lot more transparency, which is essential for any healthy marketplace.

I was in Colorado over the past two weeks, Madam Chair, and there is a real difference of opinion on this bill. My interest today is learning more about the legislation and making sure that whatever moves forward represents the best interests of Colorado.

Thank you again, Dr. Koontz, for your testimony. Thank you, Chairwoman Stabenow, for your leadership.

Chairwoman STABENOW. Thank you so much, and it is always wonderful to have a former fellow Michigan State Spartan here on the panel. Welcome. I have to say that.

[Laugher.]

Chairwoman STABENOW. All right, let us turn to Mr. Ruffin. Thank you so much for being here today and we appreciate your moving forward with five minutes of testimony and then whatever else you would like to submit for the record, we would welcome it.

STATEMENT OF WILLIAM R. RUFFIN, RUFFIN FARMS, BAY SPRINGS, MISSISSIPPI

Mr. RUFFIN. Thank you, Madam Chair, Ranking Senator.

I appreciate the opportunity to come here. I want you to know that I am very honored. I never thought I would get an opportunity to come before this distinguished committee. I really appreciate it and I am also humbled by it. I appreciate this opportunity.

I come here today representing the U.S. Cattlemen's Association and I come to represent producers, backgrounders, and stockers because that is the part that I am involved in. I come here to tell you what is going on in the pastures at home.

I will tell you that I am passionate about the cattle business. I have been in the cattle business my entire life. If you read my bio on my submitted testimony, you will see that I have been involved in it my entire life.

I do have a sideline of practicing law but I assure you, the part of my tax returns where I lose the most money is in the cattle business. I have a definite interest in that.

I guess probably where it first hit home to me about what was happening to the marketings system in this country was back in the 1970's. It actually took place in Senator Grassley's State. In Iowa, I had a connection there where I could sell cattle, small groups of cattle, maybe two or three loads, to just independent farmers who had a bin full of corn and they would take that corn and sell it through my steers and heifers that I send them. It was a good relationship. They paid a fair price. They made money, I made money. Everybody was happy.

Toward the end of the 1980's and 1990's, all of a sudden that market dried up. I was talking to my man there and he said they do not have anywhere to sell their cattle. The packer ownership, the AMAs, they do not have anyplace to sell those cattle. I mean, the formula cattle and all have taken them away and they do not have a place to sell them. I lost that market.

Well, if you are in the cattle business you have to be resilient. I move on from there and I move on to where I call a group of—we call them order buyers. They are commissioned sellers. I called them to sell my cattle. I have a group of producers that we pool our cattle together and we try to sell those cattle through a group of commissioned sales, which would be probably five or six. All of a sudden, the first thing I realized is I am only getting two bids. I asked them why? Our cattle were sold in the markets in Northern Texas, Oklahoma, New Mexico, Southern Kansas. The reason is because there is no cash market there.

I am emphasizing that we have got to have a cash market. We have got to have an opportunity to sell our cattle. That is the way we sell them. All of the competition is taken away.

Now I only talk to one buyer. I have to try to guess, because I do not have the information really to determine whether I am getting a fair offer or not. I only have one buyer.

I daresay that if we do not pass this bill where we have some transparency in this, and we do not make an effort to re-establish the cash price, I am not going to have any. When that happens, I will go the way of most of the producers in this business. We have lost probably somewhere around 12,000 in the last 20 years in my home State. Our State had around two million cattle in 1970. Now we have maybe 800,000.

There is a problem. The problem all started taking place when we got consolidation of our packers and we got consolidation of markets and the AMAs came in.

I am an advocate of this bill. I realize it may not be perfect but I do think that we have got to do something because if we continue to do nothing, which is what most of the opponents of this bill say, we are going to keep getting the same results. I would seriously consider that you take this bill, it may not be a lifesaver but I think it might throw us a life raft anyway.

I thank you, Senator.

[The prepared statement of Mr. Ruffin can be found on page 60 in the appendix.]

Chairwoman STABENOW. Thank you very much.

Now, Mr. Tiffany, welcome.

STATEMENT OF SHAWN TIFFANY, PRESIDENT-ELECT, KANSAS LIVESTOCK ASSOCIATION AND TIFFANY CATTLE COMPANY, HERINGTON, KANSAS

Mr. TIFFANY. Well, thank you Chairwoman Stabenow, Ranking Member Boozman, and members of the Committee. I appreciate you allowing me the opportunity to testify today.

My name is Shawn Tiffany. I am the president-elect of the Kansas Livestock Association and a member of the National Cattlemen's Beef Association Live Cattle Marketing Committee and Board of Directors. I co-own and operate Tiffany Cattle Company with my brother, Shane. We grew up in the cattle feeding business and in 2007 had the opportunity to purchase the feed yard our father managed and that we grew up working in.

Since then, we have grown to include a second finishing yard and a grow yard. I also am a partner in a company named Elevate Ag, a regenerative ag company that produces biological inputs for farm-

ing and grazing systems, reducing dependency on chemicals and synthetic fertilizer inputs.

I have a bachelor's degree in animal sciences and industry from Kansas State University. My wife, Nicky, and I live near Herington, Kansas with our five children.

Price discovery, market transparency, access to additional processing capacity, and proper oversight of cattle markets is important to me and all cattle producers. However, neither of the bills being discussed today represent the right approach to these issues. I am opposed to these bills and ask that the Committee not advance either.

The vast majority of cattle producers oppose government mandating a minimum level of negotiated trade. In February, members of NCBA adopted policy opposing government mandates on cattle marketing methods. KLA joined with 29 other NCBA affiliates in a letter to this committee expressing opposition to marketplace mandates.

In January, the American Farm Bureau Federation took a position in opposition to marketing mandates. Having participated in both the KLA and NCBA policy process, I can tell you those members overwhelmingly believe cattle producers should have the opportunity to market their cattle how they see fit without arbitrary limitations imposed by the Federal Government.

Tiffany Cattle Company is a custom cattle feeding business. What that means is the cattle in our feed yards are owned by other cattle producers. They place their cattle with us and we provide feed and care during the finishing phase. One of the services we provide our customers is marketing their cattle when they are ready for harvest. We work with multiple packers using several different marketing methods to maximize the value our customers receive for their high quality cattle. A mandated minimum level of negotiated trade will limit my ability to maximize the value my customers receive for their cattle.

Furthermore, a mandate on the packers will force packers to discontinue some alternative marketing programs to meet minimum negotiated trade mandates. Which of my customers will lose their ability to access value added marketing when this happens? Neither myself, nor my customers, will be given the option to choose because the mandate, and the power to comply with the mandate, will rest with the packer.

Cattle producers themselves have gravitated toward the use of AMAs. There are many reasons for this. AMAs allow a cattle producer to capitalize on the investments in improved genetics and production practices on their ranches. AMAs allow the cattle producer to capture more of the value when their cattle yield beef products with attributes that the consumer is willing to pay for.

My brother and I built our first generation business from 10 customers to over 200 customers by having access to quality-based premium programs. Not only has our own business grown but those of our customers' as well, because AMAs have allowed them to be paid for the exceptionally high quality cattle that they raise.

My typical customer has fewer than 200 cows and will retain ownership of their calves in order to receive the true value for their efforts and, just as importantly, to receive the carcass data back

from the packer so they can continue to make improvements in breeding decisions back at home.

Tiffany Cattle Company is also engaged in efforts to produce beef with lower total greenhouse gas emissions. This program requires an AMA to facilitate the supply chain coordination necessary to connect these products to consumers willing to pay for that certification. We also feed a high percentage of Non-Hormone Treated Cattle and Natural Program cattle. These labels rely on AMAs to ensure the cattle producer, who has taken on the additional expense of gaining that certification, is assured access to a market willing to pay for the added value.

In conclusion, increased use of AMAs is correlated with improved beef quality. When packers pay for quality, farmers and ranchers are incentivized to produce it. In the year 2000, about 60 percent of fed cattle graded choice or better. Today, that number is more than 80 percent. In my own operation, we have averaged 92 percent choice or better in all marketings for the last 10 years. That improved quality has led to better beef eating experiences, which has led to increased consumer demand for beef, both domestically and internationally. AMAs have helped the cattle industry better meet consumer preferences and consumers are gravitating toward our beef because of the high quality and the unique brands we have developed.

I ask Congress not to limit my use of AMAs, which have helped make these quality improvements possible.

[The prepared statement of Mr. Tiffany can be found on page 68 in the appendix.]

Chairwoman STABENOW. Thank you, very much.

Mrs. Ziesch, welcome.

STATEMENT OF SHELLY ZIESCH, OWNER/OPERATOR, ZIESCH RANCH, JAMESTOWN, NORTH DAKOTA

Mrs. ZIESCH. Chairwoman Stabenow, Ranking Member Boozman, members of the committee, thank you for the opportunity to testify today.

My name is Shelly Ziesch, and I am a fourth-generation cattle rancher from Pettibone, North Dakota. On our family operation, we run about 600 cow/calf pairs. We background most of our calves and finish a small percentage of them that are processed locally. We also raise corn, soybeans, wheat, oats and alfalfa.

I serve on the board of directors for North Dakota Farmers Union, and I am testifying today on behalf of NDFU and National Farmers Union.

Achieving greater transparency, price discovery, and fairness in the cattle market is critical to the survival of family farms and ranches. In 2020, I chaired a livestock committee that NDFU established to develop rancher-led solutions to the challenges we face. In the six-weeks leading up to our first meeting, the spread between boxed beef and fed cattle prices increased by over 300 percent. While those price swings were directly attributed to the pandemic-related disruptions, they also underscored the dangers of a highly concentrated food system.

That committee identified seven policy proposals to increase competition and fairness in the cattle and beef industries; establish

transparent, truthful labeling on beef products; and increase local and regional slaughter capacity.

One of Farmers Union's chief concerns is the decline of negotiated trades in the cattle industry. Ranchers need to have options when marketing their cattle, including cash trades and alternative marketing agreements. However, in the last 15 years, cash trades have declined from 52 percent to 20 percent. As the cash market thins, local livestock auctions are going out of business. If that trend is allowed to continue, producers will lose those important marketing options. This is concerning because the cash market provides the transparency and price discovery ranchers need to negotiate a fair price for our cattle. The cash market also serves as the basis for all cattle prices.

In our operation, we sell our cattle through a combination of cash sales and forward contracts that are negotiated. We use the cash price we receive to help us determine the fair market value for the cattle we will sell through those forward contracts. Without the transparency of a robust cash market, I am at a severe disadvantage when marketing my cattle regardless of the marketing arrangement I use.

NDFU was a strong early supporter of Senate Bill 949, commonly referred to as the 50/14 bill. We believe establishing a floor for the cash market is critical to promoting a fair and transparent marketplace. While we are disappointed the 50/14 bill has not attracted a broader base of support, our top priority is finding a way to move this issue forward. The Cattle Price Discovery and Transparency Act is an important step toward protecting transparency in the cattle market.

The Cattle Price Discovery and Transparency Act includes several provisions that will promote fairness and transparency in cattle markets. The bill establishes regional minimums for negotiated trades which will preserve the cash market as an option for cattle producers and improve and preserve price discovery. The bill also requires 14-day slaughter reporting, expedites carcass reporting, and mandates reporting of cutout yield, all of which will give producers deeper understanding of supply and demand factors affecting the market.

Finally, the legislation establishes a cattle contract library, which will cattle producers insight into contract terms that they should consider or employ when using AMAs.

Farmers Union is also a strong supporter of the Meat and Poultry Special Investigator Act, which would strengthen enforcement of existing competition laws. The Packers and Stockyards Act has existed for over 100 years. A lack of enforcement has allowed the consolidation and anti-competitive practices to continue.

The USDA and Department of Justice need stronger tools to enforce existing antitrust laws. Senate Bill 3870 would give USDA the authority and resources it needs to make sure our laws are enforced the way Congress originally intended.

In closing, I want to say that many family farmers and ranchers, my main goal is to ensure our operation can continue with the next generations. That is why I spent the last two weeks trying to save newborn calves during our historic blizzards in North Dakota. It is why I serve on North Dakota Farmer's Union Board of Directors,

and it is why I am here today. I urge the Committee to pass these two bills because they will provide my three daughters and my grandchildren the transparent and fair markets they need to carry on our family's ranching tradition.

Thank you very much for the opportunity to testify. I look forward to your questions.

[The prepared statement of Ms. Ziesch can be found on page 72 in the appendix.]

Chairwoman STABENOW. Thank you very much.

Dr. Koontz, welcome.

STATEMENT OF STEPHEN R. KOONTZ, PH.D., PROFESSOR, AGRICULTURAL AND RESOURCE ECONOMICS, COLORADO STATE UNIVERSITY, FORT COLLINS, COLORADO

Mr. KOONTZ. Thank you.

Chairwoman Stabenow, Ranking Member Boozman, and Members of the Committee, thanks very much for having me be part of this hearing.

Chairwoman STABENOW. I am not sure your microphone is up where it needs to be so we can hear you. Thank you very much.

Mr. KOONTZ. Is that better? My apologies.

My long-term academic interests have been in the area of understanding market power, understanding industrial organization and primarily in the cattle and beef industry. Occasionally, I am asked to meetings to talk about this topic and I pose a question to producers. Would you rather have one bid from a packer with what you know is $200 a head costs? Or would you rather have three bids from packers with $500 a head costs?

That is usually where the group of producers, whoever has invited me to the meeting, starts wondering why they invited me to the meeting. They are looking for answers but we are really faced with that as a dilemma. You have concentration in this industry because it is tremendously efficient.

My analogy is actually a summary of a large body of literature in the area of agricultural economics. Economies of size and the resulting efficiency are orders of magnitude larger than what are found and what are measured in terms of price impacts. That is a conclusion that comes out of the literature that I read, that I work in. It is not a conclusion that there is anti-competitive conduct. In fact, it is rather competitive within this industry.

It is also important to recognize that the dollars that come into the industry come directly from the consumer. Everybody works with what starts as consumer dollars. Then the dollars are split as they are passed down that market channel. They have to do through the food service, retail, purveyors and packers, feedlots, background or stocker operators, and cow/calf producers last. That is simply the way the market channel works.

If you lower costs up into the market channel, then what happens is you wind up with higher prices down at the farm level and you wind up with lower prices or lower costs for the consumer. That is a substantial body of the research that I understand on this industry.

AMAs are very much in that same framework. They are the real innovation that the industry has gone through the last 10 or 15

years. The folks that I know that developed those and pursued them, brought them to fruition to where they were working, were going through very aggressive cost-cutting exercises, trying to do the right thing in terms of managing cattle, getting the most dollar out of that process, and they were very successful at it.

Formulas are worth about $25 a head for the feeding enterprises that use them and, more or less so, about $25 a head for the packers that use them. The bottom line is that is $50. If you transfer animals from the formula bucket to the negotiated cash trade, you lose whatever proportion of animals those are. You lose that $50 value. That is going to be passed down primarily to the cow/calf producer.

I have repeatedly heard that AMAs remove the packer from the market. What I can guarantee you is if the packer does not have to buy them, the feed lot does not have to sell them. It is a one-for-one deal. It is absolutely one-for-one. That does not mean with what is left we have enough to negotiate a cash trade that we are comfortable with the price, but the industry has worked on that. With expanding volumes that we have had in the last 10 or 15 years, we have much more robust price discovery.

Price discovery happens in very thick markets, very thin markets. It is not driven by the volume of cash trade. I have done some research on that. It is not published. It is ongoing, but I am very comfortable saying that. I believe that result.

Likewise, there is not any research that shows that mandating cash trade is going to make for better cattle prices. That is just not part of the research that I understand.

In my career, understanding the packing industry, there was really one question going forward. It was what company was going to have financial stress and what plants were going to close? This industry was at substantial excess capacity for almost my whole career, starting in the mid–1990's up until things changed in 2016. In 2017, you finally had more cattle than packing capacity. That has been a recent phenomenon and it has been exacerbated by COVID.

The industries have gotten out of balance in terms of supply and demand and the resulting price different we see is largely because of that.

I want to finish with a little bit of outlook in the market. I think the markets are looking forward that fed cattle prices are approaching back to record levels. We should see substantially higher fed cattle prices. That is what the market thinks come the end of the year. We are also looking at possibly record high calf prices, if not this fall then the next fall. It is primarily the forage market that is messing that up.

How come the return to record prices? We are getting the supply and demand back into balance in terms of we have had a substantial drought for a couple of years and we are simply winding down the cattle numbers.

Thank you.

[The prepared statement of Mr. Koontz can be found on page 81 in the appendix.]

Chairwoman STABENOW. Thank you very much.

First, Mr. Ruffin, and Mrs. Ziesch, the Committee has heard that producers once received up to five bids on your cattle at auction. You often only have one or two and there are fewer regional cattle buyers available for producers like you.

What does it mean for producers' ability to determine they are receiving a fair price when they only receive a single bid for their cattle? Mr. Ruffin?

Mr. RUFFIN. Thank you, Madam Chair.

Without the information that we can get that this bill may provide us if it is passed, and I only get one bid, which is basically what I do for my cattle now, I do not really ever know exactly what the cash market is. As I said, we sell our cattle in an environment where there are very little cash cattle traded. That is in that Texas, Oklahoma and New Mexico market, and Kansas market.

I do not have, if there is not a cash basis, I have absolutely no way whatsoever to determine whether or not I am getting a good value.

The biggest problem is without a cash value, they have put the independent feed yards out of business. I have no way of knowing, you know, that is where I got bids for all of my life in the cattle business. I am here telling you what I have experienced. I got good bids from those. I felt comfortable with them.

A fair market value is what a willing seller will pay and what a willing buyer will take for it. The part we always forget is when they are not under duress. Well, name me a person now that is selling cattle in this complex we have now that is not under duress, the producer side. I always feel that. I do not feel like I get a fair price.

Chairwoman STABENOW. Thank you very much.

Mrs. Ziesch.

Mrs. ZIESCH. Thank you, Chairwoman Stabenow.

Yes, you need competition for them to be bidding. Our best day at the sale barn where two order buyers were mad at each other. I am not sure why they were mad at each other, but they were bound and determined to not let the other person get certain loads of cattle that day. That was a huge benefit to us. I mean, it just highlighted exactly why we need more competition. The next week it was all blown over and they did not bid—you know, outbid what they wanted to that day.

I just wanted to share that with you, that competition in those forms are always good just because if you have ever been to a live auction of any sort, whether it is cattle or equipment or anything like that, the more bidders you have, the more competition and the higher the price will be and it benefits the seller.

Chairwoman STABENOW. Thank you very much. That reminds me of my going to the 4-H livestock auction and every time I bid, everybody bids me up. They know I am bidding and so the young person showing the cattle or hogs loves it when I bid because they always get a great price.

Thank you very much.

I would ask each of you, also, I think Mr. Ruffin, folks realize that there is value in alternative marketing arrangements or formula contracts for some producers. The Cattle Price Discovery and

Transparency Act would still allow for producers to use these agreements.

I wonder if you could respond to Mr. Koontz's testimony that the bill and a mandate on negotiated cash sales would lead to producers losing money.

Mr. RUFFIN. I have a tremendous amount of respect for Dr. Koontz. I never met him until today. I have read his articles for years.

I, unfortunately, do not have the academic experience or world in which I can do the research that he has. I can tell you, from my end of the perspective, which is the producer, that I do not have any objection to AMAs. I do not have anything whatsoever that—I have no objection to them having value added to cattle. I daresay that when you are talking about the whole market is AMAs, then I have no place for my cattle to go.

Now I also have heard and seen in other articles that he has written that he says that the AMAs will cause—that they will have to be—AMAs, if you take all of the cattle out of the AMAs, who are you going to take out? If we had a viable cash market, I daresay there are some of those people who are selling under those AMA contracts—you have got to remember, we had no AMA contracts back years ago and cattle traded and they got fair markets for them.

If you could get a fair market value for your cattle other than an AMA, I daresay a lot of those people would come back to a cash market.

Chairwoman STABENOW. Thank you.

Briefly, Mrs. Ziesch, if you could respond, as well.

Mrs. ZIESCH. Thank you, Chairwoman Stabenow.

We have already seen this happen in other industries, not just the pork and poultry, but also the barley industry in North Dakota. We were former barley growers for malting barley. They strictly rely on contracts now. You have no outlet for any barley if you are growing it on the open market. It is strictly contract growing. If you didn't formerly have a contract with them, you are not given acres into a new contract. They are not taking on any new producers.

This is where I can see the beef industry going if this continues to go as it is. AMAs, I am not saying they should be disallowed completely but, you know, we need to have limits on them for the same reason that we do not want it to go the same way as the barley industry in North Dakota.

Chairwoman STABENOW. Thank you very much.

Senator Boozman.

Senator BOOZMAN. Thank you all very much for being here.

Dr. Koontz, do you want to respond to Mr. Ruffin? I love to hear Mr. Ruffin talk. I feel like I am at home in Eastern Arkansas. Regarding AMAs.

Mr. KOONTZ. You know, more bidders, more buyers is always better. At what cost?

In particular, in the southern plains, the southern plains, with the closure of the facility at Plainview, became very much a region kind of razor's edge. The supply of cattle in that area could easily be out of balance with the packing capacity. That region went very

aggressively toward using AMAs so that they knew what was coming, they were able to coordinate.

There were some concerns there about price discovery. Folks were active in the market. I do think the incentive is on both sides of the market, if they are not comfortable with what is being traded, to back out, to move back to trade more cash if there is an issue there.

What I have done some research on is that that price discovery can very effectively happen with very few trades. There is a lot of other things going on. One of the more important things about price discovery is being able to anticipate what people are thinking is going to happen next in that marketplace.

If you go back to prior to COVID, when the shutdowns were taking place, we did not know what was likely to happen next. Therefore, you need more market participation potentially in that environment.

Right now, moving forward, the market is pretty confident that supplies will tighten up, prices will improve dramatically, packer margins will decline, and the price discovery in this situation right now is not tremendously uncertain.

I would be most concerned about what are the costs and let the underlying players that are doing that determine how they market cattle.

Senator BOOZMAN. Mr. Tiffany, low-carbon based non-hormone treated, and natural beef are all experiencing increased demand both domestically and abroad. Can you describe your experience in programs like these and describe what effect a cash market mandate would have on your ability to pursue those types of programs for the ranchers that you represent?

Mr. TIFFANY. Yes, gladly Senator.

Programs like non-hormone treated, natural, low-carbon beef, these are not things that you just determine late in the feeding period that this is how you are going to market your cattle. Decisions that influence this type of product being ready at some point in the future happen oftentimes three years in advance. You have breeding decisions made at the ranch level prior to gestation, then prior to the lifespan of this animal. Throughout the life of that animal, they have to be managed and handled in such a way to where they are still eligible for these programs.

As we enter into this new market of low-carbon beef, which I am certainly excited about both as somebody who is passionate as a steward of our environment but also as somebody who thinks that the beef industry holds the keys to some of the climate problems that we face in our world. It is even more so because at this point it is not even just about the animal, it is about the grazing systems that the animal is in. It is about the cover cropping plans that are made oftentimes years in advance and the carbon sequestration that is involved.

It takes so much management and thoughtfulness to get that product at some point in the future that I have to know through an AMA that that market is going to be there in order to make that investment.

This bill is going to limit what I think many of us in this room see is tremendous potential for the beef industry.

Senator BOOZMAN. Very good.

Dr. Koontz, if a Federal mandate is adopted that limits producers' ability to use formula pricing agreements as they choose, some States or regions could experience losses approaching $100 million per year. Where do the premiums go? Will those premiums shift to other segments of the cattle industry?

Mr. KOONTZ. I would like to add to Mr. Tiffany's answer before I get to that. The thing that piggybacks on top of his response is that many of those programs are going to particular packers and dedicated plants. They are going to plants that are specializing in those products or a variety of products. Those plants may have very little participation in the cash market.

Requiring some sort of minimum trade backs them off of that specialization. I am sure that that costs.

To get at your concerns, so the premiums that are—you know, the real advantages that came from AMA development and use was in cattle management. It was in—the underlying feed yards were the ones that had developed those programs, that negotiated them with packers. They are managing those cattle better in terms of knowing when they get marketed enables those producers to target those premiums.

If you are required to go into the cash market and you could for sure chase the premiums through a negotiated grid. That negotiated grid has the risk that the negotiations fail, that the cattle are not marketed that week, that are marketed somewhere in the preceding weeks. Or if you think the negotiations might fail, you market them early. You wind up losing the production efficiencies as well as the returns on the profit side.

Senator BOOZMAN. Good. Thank you, sir. Thank you all.

Chairwoman STABENOW. Thank you very much.

Senator Hyde-Smith and then, unless we have another Democratic member that returns, the next will be Senator Marshall.

Senator Hyde-Smith.

Senator HYDE-SMITH. Thank you, Madam Chair.

Mr. Ruffin, as a cattle producer in south Mississippi, will you please share your perspective on how the Cattle Price Discovery and Transparency Act will address the three main trends that are negatively impacting the U.S. cattle industry; thinning negotiated trade, decreasing accuracy of price discovery, and diminishing competition in negotiated trade?

Mr. RUFFIN. Thank you, Senator Hyde-Smith.

I think, if this bill is passed, I think pure and simple it is going to create some competition back among the bidders on cattle for people like me who have either feeder cattle, or stockers as we call them, and cow-calf. The reason that I think that is because if the packers do have to buy some cattle off the negotiated cash market, then it is going to cause more independent feed yards who may be on the verge of bankruptcy now to be back in the market. If I get more bids, I just get a better price. That is what I have experienced all my life. I have not been experiencing that.

Senator HYDE-SMITH. Thank you for that answer, very much. Thank you, Madam Chair.

Senator BOOZMAN.

[Presiding.] Senator Marshall.

Senator MARSHALL. Okay, thank you, Chairwoman.

Mr. Tiffany, I will start with you. I want you to be as specific as possible. You mentioned that 92 percent of your beef is traded as choice. I would imagine there is a premium that you are getting for that, that you have a long-term contract, you have worked hard to get that. Your customers that are at the cow-calf operations have worked hard on their genetics and then you have a recipe for that animal as well.

If this legislation was passed, what would be the downside to that premium?

Mr. TIFFANY. Well, just to clarify just a bit, Senator, long-term contracts, that is not what we have. We have access to those markets because—and they are available to anybody—for example, in U.S. Premium Beef, if you have shares, whether owned shares or in our case leased shares, that gives us the right and the obligation to deliver one animal against that grid. We go rent those shares or lease those shares because we want access to that grid for our customers.

My brother and I, as you alluded to, achieved the American dream. I mean, I was a young boy who wanted to grow up and be a cowboy. When I achieved that, I decided I wanted to be a cattleman. We bought our first business with a handshake as our down payment and our collateral. All we got was a chance.

From that point, we had to make ourselves relevant in the marketplace and we did that by having access to top notch grids and markets on behalf of our consumers. We are an independent feed yard. Not only am I an independent feed yard, I am one that started from virtually nothing as a 30-year-old kid looking back.

This bill would, well it would end my business model as it exists today and it would cause many of my customers to quit retaining ownership of their cattle, getting that carcass data back just because it would be so detrimental to the way we market cattle, it would radically change everything that we do.

Senator MARSHALL. Can you be even more specific? Are you going to lose the premium? How is that going to impact the cow-calf operator?

Mr. TIFFANY. What it is going to do is it is going to apply 20-year-old pricing mechanisms to an industry that has far, far advanced beyond just cash trade. You know, marketing issues are nothing new. I remember as a boy, with my dad managing a feed yard, cash trading everything at the time, there were these same arguments, that the packer has too much power over us. AMAs allowed producers to get paid for the product that they are actually producing.

Senator Fischer talked about how nobody from Nebraska came because they did not want to put themselves out there. Admittedly, that is a risk. It is a risk worth taking for the American cattlemen, those of us that are sitting here, that we take it. I feel strongly that we have got to get this right. It is incumbent upon you all to do that.

I will acknowledge that price transparency, price discovery is critical. In reality, this bill does not achieve the goals—and actually, I appreciate the spirit of the authors of this bill. I do not feel that this achieves the goals of what this body is trying to achieve.

Senator MARSHALL. I think you basically answered this question but I want to highlight it. You are opposed to regional negotiated trade mandates. Does that mean you are not concerned about negotiated trade?

Mr. TIFFANY. Oh, I am all for negotiated trade. Furthermore, I think negotiated grid trade is good, as well. Those negotiated trades occur in the last two to three weeks of that animal's life. Like I suggested earlier, these higher end programs that the consumer is avidly trying to get, that does not happen in the last two weeks of that animal's life.

Senator MARSHALL. What provisions of the bill do you support, do you feel good about?

Mr. TIFFANY. Well, I think there is some opportunities in expanded reporting regions, bringing some of those other States in. I think a cattle contract library has the potential to be as well. I am a bit cautious about that, and the reason why is there are confidentiality concerns.

The other concern that I have, as a small independent feed yard, is I do not have a battery of personnel that are statisticians and part of a think tank. My fear is that the big four, that everybody keeps alluding to, who has those types of people on their staff, will be able to analyze that data far better than my team ever can and it might even give them an additional advantage.

Senator MARSHALL. Thank you so much. I yield back.

Chairwoman STABENOW.

[Presiding.] Thank you very much.

Senator Grassley.

Senator GRASSLEY. After decades of dealing with this issue, it is kind of really surprising to get 19 Senators to cosponsor this and have broad bipartisan support. Eleven members of this Committee are cosponsors. Lawmakers are beginning to realize in order to have a sustainable supply of meat we need transparency in the marketplace and protect the market from collapsing when there are supply chain disruptions.

I think having right here testimony from North Dakota and Mississippi shows wide geographic support. The most vocal support comes from my Iowa cattlemen. During my county meetings, I hear about the lack of competition all the time. This bill 4030 is a true compromise. Many producers in the Northern Plains went more intervention to ensure a robust cash market. These producers support a bill that would even go further than what Senator Fischer and I have compromised.

While we also hear from producers who do not want any government intervention, so the bill does not go far enough for some organizations and it goes too far for some others. For that reason, I think that we have something that ought to fly here.

I am going to start out with Mr. Ruffin. You tell us the loss of the cow-calf ranchers. The same is true of most States in rural America. Rural America is being hollowed out by consolidation and lack of competition. What do you say to economists who say there not an issue with price discovery or price transparency?

Mr. RUFFIN. The fact that I cannot get but one bid for my cattle anymore. I mean, that is true. The fact that producers in my area are going out of business.

I have a group of young people who are in a production group that we pool cattle together and we are able to get market prices a little higher because we can sell in truckload lots, Senator. Those individuals, that is one of those groups that I used to get prices from four or five commissioned buyers. Now I get one. I see them dropping off the list. They are dropping off the list.

Senator GRASSLEY. In Iowa, you might get one bid but you do not deliver your cattle for 30 days, as well. You imagine feeding cattle for another, at $7 or $8 for corn is not nice.

I am going to go to Mrs. Ziesch. I want to open by saying that we have these Fires at Holcomb all the way, then the pandemic disruptions we have, now labor shortages. Producers are no strangers to adversities and it seems like we are having so-called black swan events every year instead of every 100 years. When the market is working efficiently, then producers up and down the supply chain make money. When these black swan events happen, like we have seen in the last five years, it seems like the smaller independent producer on the cash market gets damaged the most. The lack of resiliency in the supply chain, Congress spent $8.5 million to help cattle producers.

My question to you, being a producer that is most similar to Iowa cattlemen, can you tell the Committee how these black swan events impact and continue to harm your business?

Mrs. ZIESCH. Thank you, Senator Grassley.

Yes, I can. I have got a very recent case. We sold through the sale barn about a third of our cattle. Unfortunately, it was certainly after Ukraine was invaded. We did not have a lot of choice in the matter. We had some storms the week before that shut down all of the sale barns. Of course, everybody knows that we all, as farmers and ranchers, a lot of us have bills due at a certain time of the year based on when our cattle sales are.

With the feed and the price of feed and all of that stuff that goes into them, it was time for those cattle to go. As a live product, we do not have that option of putting them in a bin like we can with our grains and making a better choice later.

With that being said, we probably lost about $20,000 to $30,000 that day at the sale barn just because of what happened overseas. That happens a lot. Most of the cattle buyers that day that were there were actually on their phones either reading a book or playing games. It was pretty disheartening when you only had about two buyers that were actually buying and even them were only doing it half-heartedly just because they knew they could take advantage of what the market was that day.

We realize that we do sell on a worldwide market, that we have to be aware of what is going on in the world. Sometimes it does feel like we are being taken unfair advantage of at different times. Yes, we are very cognizant of disruptions.

Senator GRASSLEY. My time is up. I had a couple of questions for you, Mr. Tiffany. I will submit them for answer in writing.

Chairwoman STABENOW. Thank you very much.

Senator THUNE. I am not sure if he is coming back to join us, but we will call on him when he does.

Senator Fischer.

Senator FISCHER. Thank you, Chairwoman Stabenow. Thank you to our Ranking Member. I especially want to thank both of your staffs. They have been wonderful to work with, with our staff as we worked through the technical aspects of the bill. I think that was extremely important. We had USDA come in. There has been a lot of time and effort by everyone on the Committee. I thank you and your staffs for that.

We have seen economists over the past few years estimate wide-ranging figures about the values of AMAs, as much as $65 a head. However, economists note their research draws conclusions "from a world that has not happened and measurements from the real world must be made and extended to the policy proposed." Fortunately, through a combination of voluntary efforts aided by pressure from this Congress, we have real world examples of increased negotiated trade.

The Texas-Oklahoma-New Mexico region marketed just seven percent of their cattle in the negotiated market in 2019. That doubled to 14.2 percent in 2021.

I am a member of NCBA and the policy of that association has been in support of negotiated sales. In fact, NCBA had a voluntary program which I referred to earlier in the first panel. That voluntary program did not work. It did not work because the packers did not participate. While we can talk about voluntary programs and that that is the way we want to go, and to listen to my dear friend Chuck Grassley say that the bill, it goes too far for some people, not far enough for other people. I think we have got a sweet spot here. I think we have found that sweet spot with this bill and with the support we are seeing for the bill.

NCBA also said if that voluntary program did not work that we should compel reporting. Well, to me the word compel means mandate. I am not happy about mandates. I am a rancher. I do not like mandates on anything. I do not like government getting involved in a lot of stuff. When you put forward voluntary programs and it is shown that they do not work and acknowledged by associations that they do not work, we need to look elsewhere.

We have done that with this bill. We have seen groups come together. We have listened to what different groups, different people want to do, and we have tried to meet that. I think we have been very successful on it.

AMAs are still going to exist because they do recognize the premiums that people should get for the genetic improvements that they have in their herds, for the good things that they are doing in marketing. Those will still exist. They have existed for a long time. They will continue.

Mr. Ruffin, as a producer who sells cattle into Texas, you can speak to real world impacts that we see that negotiated trade will bring. When Texas-Oklahoma-New Mexico region increased their negotiated trade, did you experience significant economic losses, as some economists have claimed?

Mr. RUFFIN. Senator, I did not. I guess the problem is, from where I stand, a small cow-calf producer and backgrounder and stocker in Mississippi, the price really has not changed much period, up or down, even though I know that packers are reaping premium prices for animals. I have seen some reports, I have no idea

if they are true or not, where during COVID last year their wholesale meat prices went up 100 percent, retail went up 25 percent. I know personally my calf prices went down 20 percent.

From where I am, no, I have not see it decrease, I have not seen it increase, not because of more increase in the cash sales. No.

Senator FISCHER. Well thank you, sir. It is good to hear from a producer that increased negotiated trade did not impose a cost upwards of $65 a head, as some models have suggested. This large of a cost would have been noticeable in the real world and impacted your bottom line. That is what we deal with every day, is our bottom line.

As I have said throughout this process, Nebraska is the beef State. We have all segments of the industry in my State. It has the biggest economic impact on the State of Nebraska. I want all segments to succeed. That means the cow-calf producer, the backgrounder, the large and small feedlots, and our big packers. We have three of the four big packers in the State of Nebraska. It is important that they succeed, as well.

Unless we see some changes made and be able to look forward to success for all members of this industry, for all segments, that will not happen.

Once again, I thank both our Ranking Member and our Chair for the good work that you and your staffs have done on this. I thank Secretary Vilsack and the USDA, and I look forward to a vote on this bill. Thank you.

Chairwoman STABENOW. Thank you very much.

Senator Hoeven and then Senator Braun.

Senator HOEVEN. Thank you, Madam Chair.

Shelly, again, thanks for being here. You and your husband and your family run a cow-calf operation, 600 head. Tell us a little bit how you market and then how you think this legislation can help? Obviously, we are worried about getting more competition for our producers and better transparency. Talk a little bit about, like you say, your marketing practices and what you need? What you think can help you, and maybe touch on this legislation? Because I know you are familiar with it.

Mrs. ZIESCH. Thank you, Senator Hoeven.

I just wanted to clarify, too, using Ukraine as a black swan event or something that affects us, I do not want to make light of what is happening over there. Our hearts and minds are with them because they are very similar to us, they are farmers, they are ranchers. I just wanted to make sure that that is not taken out of context, that we are very, very aware of what is going on over there and hope that it is resolved.

Senator HOEVEN. Shelly, in fact, some of their herd came from North Dakota. We actually have exported cattle over to them, if you can believe it, on a 747. The Price Brothers and others actually sent restock over to Ukraine. A lot of their herd, some portion of their herd, is actually North Dakota based.

Mrs. ZIESCH. Yes, that is correct, yes.

How we market ours is about a third of ours we go through a broker and do a forward contract, basically. He negotiates with the smaller feedlots or the larger feedlots. We have sold cattle down into Nebraska, Colorado, Minnesota, and Iowa. He is with the

farmer feeders. He is the one that has the contacts. It is just easier to go through a broker. We pay him a commission to do so and we put out a bid based on the cash market, what is going on at the local sale barns. We decide what we would like to get for the bid. We put that out there and say hey, we would like to get this dollar amount for this weight.

Then he will contact his contacts and they will get back to us with what they would like to pay and we negotiate that contract. Sometimes it is a 30-day window of when we would do delivery. Sometimes they like to do it longer. We used to do it longer but we thought they were getting a little too much control and we decided we did not want to do that. We decided also that we did not want to do more than that 30 percent because of the same reason, that they seemed like they were getting a little greedy and had too much control over how they controlled the market.

The other third will go through the sale barn, which we sell at about four local sale barns at different times, depending on what size cattle they are and what the needs are. Those are regional markets also.

Then the other third we either retain for ourselves for replacement heifers, we sell replacement heifers to other producers. We also have a small portion that we use for processing, which in North Dakota right now we have to book out about a year, a little over a year, to book processing dates because we do not have the capacity, our larger processors in North Dakota right now.

Senator HOEVEN. What are the things that you feel in this legislation or other things would be most helpful to you?

Mrs. ZIESCH. I think having the cattle contract library would be helpful, so a person could see what those AMAs are so you——

Senator HOEVEN. I am glad you said that right at the outset.

Mrs. ZIESCH. The ability to have a more robust cash market is huge. We have seen sale barns in North Dakota close. Then you lose that market. You lose access to those different buyers. A lot of the same buyers do wind up at the same markets. Depending on how the market went for that week, say if you wanted to sell on Tuesday or if you wanted to sell on Friday, it can change rapidly based on the market. It would help with the cash market, I do believe.

Senator HOEVEN. Do you think the approach, this regional mechanism set up in Fischer Grassley, do you think that works? Do you think it is helpful? Do you have any recommendations regarding it?

Mrs. ZIESCH. I guess I do not have any specific recommendations regarding it. I mean, the best you can do is give it a try and see if it works. As far as regional, I am a producer. That is kind of out of my area of expertise of setting up the different regions and that type of thing.

Most recently, I have been in coveralls——

Senator HOEVEN. In terms of our region, what is your thought, for example, for our region? Do you think that would be helpful?

Mrs. ZIESCH. I think it would be. I mean, it cannot hurt. What we have got going now is not helpful. We are losing ranches at an alarming speed. When I look around my community, there is empty ranches sitting there. The ones that are ready for retirement, they

do not have the next generation coming on. They are going to be empty ranches soon, too.

What we are doing now is not working, so we need to change something. If not now, I do not know when.

Senator HOEVEN. Thanks again for what you do out there, and thanks for being here today. I really appreciate it.

Mrs. ZIESCH. Thank you, Senator Hoeven.

Chairwoman STABENOW. Thanks very much.

Senator Braun.

Senator BRAUN. Thank you, Madam Chair.

You know, ironically I just came from a health care hearing and also meeting with the Indiana Hospital Association. I have been an entrepreneur for 37 years prior to becoming a U.S. Senator. I can tell you, I operated in markets that had no barriers to entry, no barriers to entry, 100 percent transparency. I will never forget the guy in Houston that was a dealer. He said you are No. 5 on speed dial. I will get to you when I am not happy with the prices on the other four. That is a definition of free markets. The other thing would be an engaged consumer, and information. You have got to have all of that.

A classic definition of when things get too concentrated would be close to where this topic of conversation is. Just before I came in, the four largest meat packers control 82 percent of the market. A lot of it is due to, over time, you simply evolve into maybe that being a more efficient model.

I had a turkey farm for 32 years. We used an arcane method called the Urner Barry pricing method, and got into it when there were open markets still there, where you were not a contract producer.

All of that has a place. Whenever you get to a point where you feel you are running out of abundant information and too few players are controlling the scenery, that is when you get into trouble. Market concentration, too much of it, hurts all markets. They sooner or later lose the characteristics of being true marketplaces.

Health care, which is the biggest sector of our economy, has gotten to the point where it is a tradeoff between government taking it over, where many would want Medicare For All, versus fixing the system.

I think you know where I am coming from. I have got a simple question. Are we at the point, and I will ask this of Mr. Ruffin and then of Mrs. Ziesch here in a moment. Do you have the information you need to feel like you are a participant in a totally free unfettered market? Or do you feel it is getting worse and worse, in terms of making a living doing what you are doing because of the structure of the market itself?

Mr. RUFFIN. Senator, I do not have the information that I need to determine whether or not I get a fair price for my cattle. That information is guarded in the industry. I do not have that. Of course, it is getting worse and worse because, as they go into these AMAs more, I get less and less information about that. I do not know what is marketing when or where.

I do get less and less information every day. I cannot determine what is a fair market value for my cattle. It is getting worse.

Mrs. ZIESCH. Thank you, Senator.

Yes, kind of along those same lines, if we do not have the cash market to base it off of, we do not know what is going on farther down the pipeline. We base our prices off the cash market. If that goes away further, it is going to really be detrimental to that.

I do have a friend who operates a feed lot fairly close to us and he sells direct to packers. He said only one time in the 30 years that he has operated his feed lot has he ever been able to negotiate with the packers. That is because they were short on cattle in 2014.

Senator BRAUN. I think what you are saying is emblematic of not just raising cattle and finding markets. It is emblematic in so many industries across our country. Never had the benefit in my own business of doing anything but unfettered competition. When any market structurally gets to the point that—not only in agriculture and it is not just in meat packing. It is across row crops, as well, health care industry. Any other industry that loses those characteristics of no limits on competition, no barriers to entry, full transportation and engaged consumer or an engaged knowledgeable seller, and the disproportionate nature of where one is at one end of the spectrum and the other is at the other end of the spectrum, it invites hearings like this.

Just like I told the health care industry, fix it, become more transparent before you get government running the business. Then you will really be complaining about it.

Thank you.

Chairwoman STABENOW. Well, thank you very much.

Thank you to the USDA and thank you to all of you for really important input for us. We really appreciate your perspectives on these bipartisan bills.

As we have heard today, there is no shortage of complex challenges facing livestock producers. USDA has made progress in increasing opportunities for small and mid-sized processors but there is a lot more to do.

I look forward to working with colleagues on both sides of the aisle as we move forward.

The record will remain open for five business days for members to submit additional questions and statements.

With that, the hearing is adjourned.

[Whereupon, at 12:59 p.m., the Committee was adjourned.]

A P P E N D I X

APRIL 26, 2022

For release only by the
Senate Committee
on Agriculture

Statement by
Andy Green, Senior Advisor on Fair & Competitive Markets
Bruce Summers, Administrator of the Agricultural Marketing Service
United States Department of Agriculture
Before the Senate Agriculture Committee on Agriculture, Nutrition & Forestry
April 26, 2022

Chairwoman Stabenow and Ranking Member Boozman, and members of the Committee, thank you for the opportunity to discuss the serious challenges facing our producers as the Senate Committee on Agriculture, Nutrition, and Forestry considers the Cattle Price Discovery and Transparency Act of 2022 (S. 4030) and the Meat and Poultry Special Investigator Act of 2022 (S. 3870). Ensuring that producers, feeders, and local and regional meat processors alike have access to fair and competitive markets is a top priority for the Department of Agriculture, and we are exploring both existing and new authorities to tackle this critical issue. We are committed to using our existing authorities to the full extent possible, and we are very pleased that there is bipartisan interest in Congress in tackling these pressing problems. The Department of Agriculture is fully committed to the goals underpinning these bills—making livestock and poultry markets fairer and more transparent.

Livestock and poultry are some of American agriculture's most important markets, with cattle contributing more than $66 billion in cash receipts in 2021,[1] and the combined value of production from broilers, eggs, turkeys, and the sales from chickens at $48.1 billion in 2021.[2] These industries are undoubtedly economic drivers and job creators in rural areas; they are also part of the fabric of rural life—cow-calf operators, auctioneers, and meat and poultry processors have been in rural areas for hundreds of years and have defined parts of rural American culture. Yet, an increasingly rigid and consolidated industry structure has lowered farmer and rancher earning power and given rise to serious concerns about anticompetitive practices that harm independent producers. Four meat packing companies capture nearly 85 percent of beef sales nationally, and small and very small meat packing plants find it too difficult to compete. Concentration at the local level—where cattle procurement takes place—is, in most cases, even higher.[3]

[1] https://www.ers.usda.gov/topics/animal-products/cattle-beef/sector-at-a-glance/
[2] https://data.ers.usda.gov/reports.aspx?ID=17832
[3] Using data on cattle purchases collected by AMS under Mandatory Prices Reporting (MPR), the HHI (Herfindahl–Hirschman Index) are calculated for beef cattle purchases based on their regional origin. The regions are based on the 5-areas of the AMS 5-Area Weekly Weighted Average Fed Cattle reports. These regional HHI values are then compared to the nationally calculated HHI.

The result is a limited set of markets for cow-calf operators and feeders, who are left with fewer options for selling their cattle and greater risks of an unfair playing field. Fifty years ago, ranchers got over 60 cents of every dollar a consumer spent on beef, compared to about 39 cents today.[4]

Limited competition also creates serious supply chain risks. This fragile market structure was exposed when plant closures due to the Holcomb fire and the beginning of COVID-19 further widened the gap between consumer prices and the price of fed cattle. Meat packing companies have brought home extraordinary profits, while producer earnings decline.[5] Since the beginning of the pandemic, the "Big Four" packing companies increased gross profit shares by 120 percent and net income has surged by 500 percent.[6] While input costs are rising, that does not explain those skyrocketing profits. Profit margins—the amount packers are making over and above their costs—have skyrocketed too, with gross margins up 50 percent and net margins up 300 percent.[7] The poultry industry faces equally troubling market conditions. As of the last available data, roughly 20 percent of growers had just one integrator in their area, another 30 percent had only two, and another 20 percent had only three.[8] Hog markets are nearly entirely vertically integrated

Table 1: Adjusted HHI for Purchases from Different Regions (All Purchase Types) Feb. 2020-2021.

	CO	IA, MN	KS	NE	Other	TX, OK, NM	All States
Purchase Shares	*8.1%*	*11.6%*	*23.9%*	*20.6%*	*15.0%*	*20.9%*	*100.0%*
Head	3,841	1,703	3,026	2,060	2,702	2,296	**1,882**
Purchases	3,831	1,697	3,063	2,049	2,616	2,277	1,864
Adjusted to account for the purchase by packers that are in P&S data but not MPR data due to MPR excluding packers with less than 125,000 from reporting. This difference represents 6.33 percent in unreported sales.							

Table 2. Adjusted HHI for Purchases from Different Origins (Negotiated Sales) Feb. 2020-21

	CO	IA, MN	KS	NE	Other States	TX, OK, NM	All States
Head	3,484	1,743	2,218	2,412	2,124	3,317	**1,776**
Purchases	3,488	1,734	2,221	2,377	2,106	3,262	1,758

Iowa & Minnesota register HHI levels only slightly below the national level of approximately 1800.
Note, AMS cannot release *weekly* regional HHI because of confidentiality concerns.
Source: USDA-AMS Market News, Feb. 2022.

[4] https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/fact-sheet-the-biden-harris-action-plan-for-a-fairer-more-competitive-and-more-resilient-meat-and-poultry-supply-chain/
[5] https://www.whitehouse.gov/briefing-room/blog/2021/12/10/recent-data-show-dominant-meat-processing-companies-are-taking-advantage-of-market-power-to-raise-prices-and-grow-profit-margins/
[6] https://www.whitehouse.gov/briefing-room/blog/2021/12/10/recent-data-show-dominant-meat-processing-companies-are-taking-advantage-of-market-power-to-raise-prices-and-grow-profit-margins/
[7] https://www.whitehouse.gov/briefing-room/blog/2021/12/10/recent-data-show-dominant-meat-processing-companies-are-taking-advantage-of-market-power-to-raise-prices-and-grow-profit-margins/
[8] https://www.ers.usda.gov/webdocs/publications/43869/48159_eib126.pdf?v=0

as well, with cash markets below 2 percent nationally and packer ownership also giving rise to significant concerns about fairness and preferences.

The Biden-Harris Administration and the Department of Agriculture know how important competition in the meat and poultry processing industry are to all of America. Fair and competitive markets directly impact American families' affordable and equitable access to food, the ability of farmers and ranchers who feed the country to secure a fair price for their product, and the availability of economic opportunity that is vital for rural America to thrive. In many cases, competition concerns also raises national security concerns about the resiliency of our food supply chain.[9]

Today's competition challenge was many decades in the making. Turning the tide will require short, medium, and long-term solutions, all with the goals of helping producers remain profitable enough to stay on the farm and ensuring that consumers feel the pocketbook benefits of meaningful competition. Under President Biden's Executive Order on Promoting Competition in America's Economy,[10] USDA is deploying every tool available to deliver choice, competition, and resiliency to producers, consumers, and rural economies alike.

Pandemic Assistance for Producers

In the short term, in the midst of COVID, President Biden and the Department of Agriculture took immediate action to support producers during the pandemic, so that producers could stay afloat and stay on their land.

USDA has made available $270 million in payments to contract producers of eligible livestock and poultry, $350 million in additional dairy assistance related to market volatility, and more than $43 million in assistance for those who had to depopulate livestock and poultry due to insufficient processing access related to COVID backups. We also made available millions to lower inspection fees and support small processors better compete in the very immediate term.

Ensuring short-term viability of farmers and ranchers through COVID-19 was and remains critical to supporting long-term sustainable markets.

Fairer, More Competitive, and More Resilient Markets

The Biden-Harris Administration is also committed to medium- and long-term actions to improve the resiliency and competitiveness of our meat and poultry supply chain. USDA is strengthening America's food system with a greater focus on more resilient local and regional food production, building new markets and streams of income for farmer and ranchers, and supporting local and regional meat and poultry processing infrastructure that promotes competition and gives farmers and ranchers more and better options. In February 2021, President Biden signed Executive Order 14017, America's Supply Chains, which directed USDA to

[9] https://www.ams.usda.gov/supply-chain

[10] https://www.federalregister.gov/documents/2021/07/14/2021-15069/promoting-competition-in-the-american-economy

produce a first-of-its-kind industrial base review of agricultural and food supply chains, the results of which were published in February 2022.[11]

The review identified and highlighted vulnerabilities and weaknesses exacerbated by the COVID-19 pandemic and resulting supply chain disruptions that, in many cases, have existed for decades. Meat and poultry processing supply chains highlight a fragile, rigid supply chain that leaves our food supply vulnerable to economic shocks, consumers vulnerable to price hikes, and producers vulnerable to unfair market practices. USDA is working to fundamentally change and improve America's food system to create more, better and fairer markets for producers and consumers alike.

The Biden-Harris Administration is addressing supply chain disruptions the agricultural sector experienced during the pandemic and identified a wide range of improvements that will produce a more diversified food system that more fairly serves farmers, ranchers and consumers. We are grateful for Congress' investment in the American Rescue Plan Act to support resilient supply chains and new and better markets. In January 2022, President Biden, Secretary Vilsack, and Attorney General Garland announced the Biden-Harris Action Plan for a Fairer, More Competitive, and More Resilient Meat and Poultry Supply Chain,[12] a multibillion-dollar, coordinated, and multifaceted plan that will boost competition in food processing by expanding capacity and creating more market options for producers. [13] This plan includes gap financing grants to bring new capacity online quickly, enhanced access to capital, workforce training, technical assistance, inspection and food safety support, and research and innovation funding.

USDA recently announced the launch of two programs to help increase processing capacity—the Meat and Poultry Inspection Readiness Grant program and the Meat and Poultry Processing Expansion Program. These programs will help existing plants prepare to apply for federal inspection status and will create or expand local and regional meat and poultry processing plants, respectively. The Department also announced the Meat and Poultry Processing Capacity Technical Assistance Program, which will provide technical assistance to meat and poultry grant applicants and grant-funded projects.

In December, USDA also launched a program to make more than $1 billion in loan guarantees available to help businesses in the food supply chain process their products and get them to market. The new Food Supply Chain Guaranteed Loan Program will help local and regional meat and poultry processors and other food businesses that are active in the middle of the food supply chain, like manufacturing, storage, transportation, and distribution.

This suite of programs will help get at some of the root issues hindering the creation and expansion of competitive, midsized meat and poultry processing capacity—including access to

[11] https://www.ams.usda.gov/supply-chain

[12] https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/fact-sheet-the-biden-harris-action-plan-for-a-fairer-more-competitive-and-more-resilient-meat-and-poultry-supply-chain/

[13] https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/fact-sheet-the-biden-harris-action-plan-for-a-fairer-more-competitive-and-more-resilient-meat-and-poultry-supply-chain/

capital and technical assistance to apply for programming. By supporting these programs, USDA aims to promote more and better markets and contribute toward a more competitive, resilient industry. Collectively, these efforts will also support the strong Administration and Congressional interest in Made in America policies by increasing domestic production and creating good-paying jobs in underserved rural communities.

Strengthening Rules and Oversight to Protect Farmers, Ranchers, and Consumers

Together with our partners at the Department of Justice, the Federal Trade Commission, and other member agencies of the White House Competition Council and across the Federal government, USDA is also pursuing initiatives to adopt and enforce rules and enhance analysis and oversight to ensure fair and competitive markets in livestock and poultry, seeds and other agricultural inputs, retail grocery and distribution, and more.

To date, USDA has launched efforts including:

- A review now underway of important consumer-facing labels such as "Product of USA" for meat.[14]
- The development of new rules under the Packers and Stockyards Act, USDA's century-old fair and competitive markets law, to establish a modern regime that counters unfair and anti-competitive practices and protects the rights of farmers and ranchers.[15]
- An enhanced partnership with the Department of Justice to enforce antitrust laws vigorously and fairly, including standing up a new one-stop shop at FarmerFairness.gov to make it easier to report complaints of potential violations.[16]
- Public inquiries into new competition challenges, including—
    - Food retail and distribution concentration and access to those markets for farmers and smaller food processors;
    - Whether patents, concentration, and anticompetitive practices inhibit farmers' access to affordable seeds and other inputs; and
    - Concentration and anticompetitive practices in fertilizer markets.[17]
- New initiatives to address supply chain constraints and promote competition in transportation networks that producers depend on.[18]

Legislative Review

The Department of Agriculture has provided more than forty hours of technical assistance to the Committee and the sponsors of S. 4030 and S. 3871 on these proposals. Importantly, the bills

[14] https://www.usda.gov/media/press-releases/2021/07/01/usda-announces-efforts-promote-transparency-product-usa-labeling

[15] https://www.usda.gov/media/press-releases/2021/06/11/usda-begin-work-strengthen-enforcement-packers-and-stockyards-act.

[16] https://www.usda.gov/media/press-releases/2022/01/03/agriculture-department-and-justice-department-issue-shared.

[17] https://www.ams.usda.gov/about-ams/fair-competitive/rfi.

[18] https://www.fns.usda.gov/news-room/usda-0209.21.

under consideration today seek to add tools to the USDA toolkit for addressing markets that lack fairness, transparency, and competition.

The Meat Packing Special Investigator Act would establish a new position and office at USDA with enhanced authorities to enforce the Packers and Stockyards Act. Appropriately resourced, the new position would be a focal point for accountability and enhance enforcement.

The Cattle Transparency and Price Discovery Act aims to enhance the Livestock Mandatory Reporting Act framework to promote transparency, price discovery, and competitive leverage for cattle producers.

The rapid rate of decline of cash markets and the rise of opaque private agreements raises serious concerns about the erosion of price discovery and transparency. It also underscores imbalances in the marketplace. At a practical level, producers feel unable to obtain prices that are the product of free and fair negotiation—especially when one considers the high level of concentration in meatpacking often experienced at the local procurement level.

The proposal would:

- Establish a new cattle contract library to provide producers new insights into the range of alternative marketing arrangements.
- Establish a framework of "approved pricing mechanisms" through which a minimum number of trades would be required to flow. Approved pricing mechanisms would offer packers and producers a set of choices for open, transparent markets to price cattle, including cash negotiation, negotiated grids, exchange platforms, and stockyards. The Secretary of Agriculture would have the flexibility to set these levels.

These bills importantly aim to provide new tools to help level the playing field for American's producers and make our cattle and poultry markets more competitive, transparent, and fair. If these bills become law, USDA will implement them carefully, effectively, and transparently in partnership with Congress.

Conclusion

USDA is committed to transforming the food system and strengthening rural communities fairly, equitably, and transparently. As the Senate Agriculture Committee considers proposals to address these important issues, the Department of Agriculture stands ready to provide technical assistance and work with Congress to support a level playing field for producers, feeders, local and regional meat processors, and consumers. Thank you for your time, and we look forward to answering any questions you may have.



Written Testimony of William R. Ruffin
Bay Springs, Mississippi

On behalf of the
United States Cattlemen's Association

Submitted to the U.S. Senate
Committee on Agriculture, Nutrition, and Forestry

"*Legislative Hearing to Review S. 4030, the Cattle Price Discovery and Transparency Act Of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022*"

April 26, 2022
Washington, D.C.

INTRODUCTION

Madam Chair Stabenow, Ranking Member Boozman, and Distinguished Members of the Agricultural Committee.

I am William R. (Ricky) Ruffin here today to testify on behalf of the United States Cattleman's Association (USCA) and on behalf of the nation's cow-calf producers, backgrounders, feedlot operators, livestock haulers, and independent processors. It is quite an honor for a rural Mississippi cattle producer to testify before this distinguished committee, and I am humbled and honored to be here.

My involvement in the commercial cattle business began in the 1960s, as a teenager, working alongside my father, who was one of the first to build a small feed yard in Stringer, Mississippi. Today, I manage a herd of commercial brood cows and run stocker cattle on wheat and rye grass.

I worked with other like-minded producers in my area to establish the Jasper and Smith County Producer's Association, where producers pool together their calf crops each year with a rigid vaccination program and weaning program so that calves can be marketed in groups in truckload lots. The program has been a boon to beginning farmers and ranchers who are still growing their herds.

In addition to the cattle business, I've practiced general law for over 40 years as a sole practitioner and as a small-town country lawyer in Bay Springs, Mississippi.

As a result of what I've learned through serving two terms as a Mississippi Farm Bureau Federation State Director and through my longtime membership with the U.S. Cattlemen's Association, I strongly believe that a grassroots effort by U.S. cattle producers can work positively and effectively with Congress and the Administration to reform U.S. agriculture policy and ensure a fair, competitive marketplace.

Even after a long career in volunteer service and advocacy, where it feels like the wheels of bureaucracy can slow to a crawl at times, I maintain that belief. The two bills before us today, the Cattle Price Discovery and Transparency Act Of 2022 and the Meat and Poultry Special Investigator Act of 2022, are worthy examples of what a grassroots movement—by producers, for producers—can accomplish.

USCA stands with county, state, and national producer associations across the U.S. in supporting these historic pieces of legislation. We offer the following in support of these proposals.

THE CATTLE PRICE DISCOVERY AND TRANSPARENCY ACT

Background

In 1999, Congress passed the Livestock Mandatory Price Reporting Act largely because of the need for cattle producers to have access to more transparent market price information.

First implemented in April 2001, the Livestock Mandatory Reporting (LMR) program requires meatpackers to report primarily prices, but also other relevant information, on purchases of cattle, swine, and boxed beef to the U.S. Department of Agriculture (USDA) Agricultural Marketing Service (AMS). However, cattle producers still are unable to access to most market price information due to restrictive confidentiality guidelines restricting the publishing of that information.

Prior to the establishment of LMR, price reporting was a voluntary practice. USDA AMS market reporters would contact buyers and sellers for market information, and information that could be confirmed was officially reported. Assuredly, voluntary price reporting was unsuccessful.

The first LMR authorization expired in September 2005. Congress reauthorized the program from September 2006 – 2010, and then again from 2010 – 2015. The program currently operates on several temporary extensions of its authorities, although it officially expired on September 30, 2020.

Currently, 38 processing facilities slaughter more than 125,000 head of cattle per year—the threshold for required reporting under LMR. Over 78 percent of total slaughtered cattle, 92 percent of national fed cattle transactions, 33 percent of all cow and bull transactions, and 90 percent of boxed beef volume are covered through LMR.

AMS publishes 25-29 daily cattle reports, 21 weekly cattle reports, 13 monthly cattle reports, 6 daily boxed beef reports, 11 weekly boxed beef reports, and additional weekly and monthly reports.

The Cattle Price Discovery and Transparency Act addresses three main trends negatively impacting the U.S. cattle industry: thinning negotiated trade, decreasing accuracy of price discovery, and diminished competition in negotiated trade. We must have a negotiated cash trade price to establish a market base price, along with a catalog of transparent prices paid to select feed yards for formula cattle to maintain a competitive cattle marketplace.

Thinning Negotiated Trade

The frequency and breadth of data released by USDA AMS through LMR inspired packers in recent years to pull back their participation in the negotiated market and,

using the established market, increase the number of cattle purchased through formulas.

As formula trade increases (i.e., special prices paid to select feed yards), the negotiated market becomes thinner. We clearly see this inverse relationship in the below chart produced by USDA AMS Livestock, Poultry & Grain Market News[1].

Annual LMR Live Cattle Purchase Type Breakdown by Region

NATIONAL																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	52.1%	49.4%	47.3%	42.6%	38.8%	37.4%	32.6%	26.0%	23.1%	23.1%	21.3%	25.6%	25.7%	25.5%	20.9%	23.4%	19.5%
Formula	33.2%	34.3%	37.4%	39.1%	43.7%	43.1%	47.4%	54.8%	59.8%	56.8%	57.0%	57.6%	57.2%	61.1%	64.8%	62.7%	61.0%
Forward Contract	4.8%	7.2%	6.8%	11.2%	9.5%	11.9%	13.2%	12.0%	10.8%	15.8%	17.5%	12.7%	13.0%	9.6%	11.0%	8.9%	10.9%
Negotiated Grid	9.9%	9.0%	8.5%	7.1%	8.0%	7.6%	6.7%	7.2%	6.3%	4.3%	4.2%	4.1%	4.1%	3.8%	3.3%	5.0%	8.6%

In 2005, cash trade accounted for over half of all live cattle purchases nationally. In 2021, that number drops to below 20 percent. The situation is more dire when we look at the regions individually.

For example, in the charts below, the Texas-Oklahoma-New Mexico region experienced a nearly 40-point decrease in cash sales. Kansas dropped from over 50 percent cash trade in 2005 to 12.5 percent in 2021. Unfortunately, the majority of the cattle produced, backgrounded, and wintered on rye grass in my state of Mississippi and the greater Southeast region enter feedlots in the Texas-Oklahoma-New Mexico regions, as well as the Kansas region.

TEXAS -OKLAHOMA-NEW MEXICO																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021
Cash	47.2%	42.5%	36.7%	31.5%	26.4%	21.5%	17.0%	10.2%	6.1%	3.0%	2.6%	6.4%	9.3%	6.2%	5.4%	10.1%	7.4%
Formula	42.2%	42.2%	48.4%	53.3%	60.4%	66.9%	72.7%	76.0%	83.0%	84.6%	85.9%	82.4%	81.8%	86.2%	87.9%	84.2%	80.8%
Forward Contract	3.1%	5.0%	4.4%	5.8%	5.4%	4.9%	4.4%	5.4%	4.0%	7.4%	9.3%	7.0%	6.2%	4.9%	5.3%	4.3%	5.0%
Negotiated Grid	7.5%	10.3%	10.5%	9.3%	7.8%	6.7%	5.9%	8.4%	6.9%	5.1%	2.1%	4.2%	2.6%	2.7%	1.6%	1.4%	6.8%

KANSAS																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	50.6%	47.3%	44.8%	41.7%	39.9%	41.0%	36.9%	27.4%	21.0%	15.6%	12.5%	23.0%	21.9%	19.3%	16.2%	18.2%	12.5%
Formula	44.8%	46.0%	48.5%	48.0%	52.1%	51.6%	54.1%	63.6%	68.5%	69.5%	64.8%	67.3%	70.7%	76.4%	81.6%	76.7%	74.4%
Forward Contract	2.8%	5.4%	5.4%	7.8%	7.0%	6.3%	7.1%	5.7%	6.5%	14.3%	22.2%	9.3%	7.0%	3.9%	1.7%	1.4%	3.8%
Negotiated Grid	1.8%	1.3%	1.3%	2.4%	1.0%	1.0%	2.0%	3.4%	4.0%	0.7%	0.6%	0.4%	0.4%	0.4%	0.5%	3.7%	9.3%

A study compiled by Texas A&M's Agricultural and Food Policy Center[2] forecasted that without enactment of significant cattle market reform legislation like the Cattle Price Discovery and Transparency Act, negotiated trade in Texas-Oklahoma-New Mexico is expected to fall to zero percent by 2026.

Zero percent negotiated trade is a vertically consolidated industry. Producers in the Southeast and all parts of the country will not be able to determine a fair market price for their feeder cattle and will be at the mercy of corporate feed yards who sell cattle through formula pricing, and who are already selling to the packers through exclusive "sweetheart" deals.

[1] (Annual LMR Live Cattle Purchase Type Breakdown by Region, n.d.)
[2] (Benavidez, Anderson, Fischer and Outlaw, 2022)

If packers rely on the information available through LMR to make market-based decisions, then there is an inherent public interest that they then also participate in those markets.

In short, without intervention, the current market trend is expected to continue until negotiated trade is virtually eliminated, spelling the end of the independent U.S. cattle producer. A consolidated industry, almost wholly owned and vertically integrated by multinational corporations, is a threat to the health, safety, and security of our citizens.

Decreasing Accuracy of Price Discovery

Price discovery is the fluctuation of prices to reflect changing real-time market conditions. It is most efficiently facilitated through the cash market, where participants actively work towards an agreeable price point by gathering information on current and expected supply and demand, formulating bids and offers in negotiation, etc.

Alternative Marketing Arrangements, or AMAs, take advantage of the work put in by negotiated market participants to arrive at a mutually agreed-upon "base price". In other words, accurately priced formula trades rely on the market accuracy of the reported negotiated trade prices, upon which formula prices are based.

As outlined above, negotiated trade across the U.S. is falling. In the Texas-Oklahoma-New Mexico region, negotiated trade is below 10 percent. This is not a significantly nor statistically large enough sample size to ensure accurate price discovery.

As negotiated trade continues to decline in coming years, the cattle market faces the possibility of cattle being priced on transactions that do not reflect cattle values in a competitive market.

For the feeders and packers that benefit from the stability AMAs provide, there is a reduced incentive to revert back to cash sales. This challenge is a primary catalyst for the Cattle Price Discovery and Transparency Act.

Absent federal government involvement, the industry will continue trending towards zero percent negotiated cash trade. As already noted, some regions will arrive at this crisis point as soon as 2026.

Diminished Competition in Negotiated Trade

As formula trade has increased, some plants have begun purchasing their inventory exclusively—or nearly exclusively—using formula pricing. Formula trade heavily favors corporate feeder yards and large operations. I, being a relatively small cattle producer, have very little bargaining power with large corporate feed yards managing hundreds of thousand head of cattle and selling through formula pricing. Should we arrive at zero percent negotiated trade, there will be no established cash price for small feed yards to

negotiate with, putting the small cattle producers, like myself, out of business. Cow-calf producers are not marginal operators and have very few, if any, risk management tools or programs available to protect them in the case of down-trending markets. **THE BUCK STOPS WITH THE COW-CALF PRODUCER**. They have no place to pass their cost. All downstream losses wind up on their plates and must be swallowed by them.

With only four major packers nationwide—and in some areas, only two packers within a reasonable trucking distance for live animals—eliminating one buyer from the negotiated market in any given week substantially undermines buyer competition.

Buyer competition is also diminished when plants procure enough cattle in advance to satisfy their needs for the coming week. This captive supply reduces packer's incentive to bid as aggressively as they would if they needed to procure a greater percentage of their animals for the week's kill.

Formula trade and captive supply keep packers from actively negotiating every week, resulting in decreased competition in an already thin market.

THE MEAT AND POULTRY SPECIAL INVESTIGATOR ACT

In June 2021, Senator Jon Tester of Montana held a press conference at quite a fitting location for the occasion. Standing at the Public Auction Yards in Billings with various cattle industry leaders, he announced his intent to introduce the Meat Packing Special Investigator Act in conjunction with Senators Chuck Grassley (R-IA) and Mike Rounds (R-SD).

The bill amends The Department of Agriculture Reorganization Act of 1994 to establish the Office of the Special Investigator for Competition Matters.

It directs coordination between the U.S. Department of Agriculture, the U.S. Department of Justice (DOJ), the Federal Trade Commission, and the U.S. Department of Homeland Security. It grants these organizations subpoena power to aid in the investigation and prosecution of violators of the Packers & Stockyards Act and bolsters the legal power of the USDA by maintaining a staff of attorneys and other professionals with relevant expertise that can elevate cases of corruption.

Later that same month, Reps. Mariannette Miller-Meeks (IA-02) and Abigail Spanberger (VA-07) introduced a companion bill in the House of Representatives.

On May 22, 2020, the U.S. Department of Justice (DOJ) Antitrust Division sent civil investigative demands (CIDs) to the nation's four biggest meatpackers. Since that time, no results have been made publicly available regarding the DOJ's investigation. USCA has encouraged the Antitrust Division to fully complete its civil investigation and make its findings public as soon as possible.

If the Meat Packing Special Investigator Act were enacted, we would see increased coordination between relevant regulatory agencies that could evaluate current market conditions, step in and assist investigations as needed, and provide a pathway forward for a fairer, more competitive marketplace.

CONCLUSION

The cow-calf producer is at the bottom of the entire beef complex. The cow-calf sector, as well as the feeder calf sector, is the most exposed to market prices and downturns in the market and the least equipped to manage it, due to short capital supply.

That is why, in my state, cow-calf producers have dropped from 22,000 in 1997 to approximately 14,000 in 2020. The number of cattle in Mississippi has dropped from around 2 million head in the 1970's to approximately 800,000 head today. This historic decline should concern all those who eat, as these producers are a vital part of a resilient food supply system and a vital part of the economies in rural America.

Formula trading of cattle, combined with no clear established cash base price, creates a lack of market options for independent producers, which will eventually result in most of the producers in my state and the Southeast yielding to corporate interests and going out of business. The number of feed yards with which to market cattle from small producers has dwindled - put out of business by corporate yards using formula pricing.

Over one hundred years ago marked the first—and last—major regulatory action on the U.S. meatpacking industry. The creation of the Packers and Stockyards Act occurred at a time when the National Packing Company, a conglomeration of three of the largest meat processors at the time, controlled 45 percent of the nation's total slaughter capacity and 97 percent of the slaughter capacity in the West.

Today, the "Big Four" meatpackers, as they are now collectively known, have pushed past controlling 80 percent of U.S. steer and heifer slaughter[3]. The game has changed, but the rules have remained stagnant. Without bold action, the United States risks losing its independent livestock producers – which represents a significant loss to the security of our nation's food supply.

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[3] It is important to note here that the packers' special interest group, the North American Meat Institute, has been countering the claim that they control a significant portion of the market by stating that grain fed steers and heifers do not account for all of the beef we consume in the U.S. While it is true that we must add cull cows and bulls to the full equation, the total market share of the Big Four packers still accounts for nearly 70 percent of all commercial slaughter capacity.

That's not much of a talking point though, especially when it only took 45 percent market share to inspire action in the early 20th Century.

References

n.d. Annual LMR Live Cattle Purchase Type Breakdown by Region. [online] USDA AMS Livestock, Poultry & Grain Market News. Available at: <https://www.ams.usda.gov/sites/default/files/media/LMRLiveCattleAnnualPurchaseTypeBreakdown.pdf> [Accessed April 2022].

Benavidez, J., Anderson, D., Fischer, B. and Outlaw, J., 2022. Analysis of S.3229 – Cattle Price Discovery and Transparency Act of 2021. [online] Agricultural & Food Policy Center, the Texas A&M University System. Available at: <https://www.agri-pulse.com/ext/resources/BP-22-Cattle-Market-Transparency.pdf> [Accessed April 2022].



Shawn Tiffany
Tiffany Cattle Company – Herington, Kansas
President elect, Kansas Livestock Association

Testimony for the U.S. Senate Committee on Agriculture, Nutrition, & Forestry
April 26, 2022

Chairwoman Stabenow, Ranking Member Boozman, and members of the Committee, thank you for allowing me the opportunity to testify today. My name is Shawn Tiffany. I am President elect of the Kansas Livestock Association (KLA) and a member of the National Cattlemen's Beef Association (NCBA) Live Cattle Marketing Committee and Board of Directors. I co-own and operate Tiffany Cattle Company Inc. with my brother, Shane. We grew up in the cattle feeding business and had the opportunity in 2007 to purchase Black Diamond Custom Feeders, the feedyard our father managed and that we grew up working in. Since then, we have grown to include a second finishing yard near Marquette, Kansas and, most recently, a grow yard at Allen, Kansas. I also am a partner in Elevate Ag, a company that produces biological inputs for farming and grazing systems reducing dependency on chemicals and synthetic fertilizers. I have a bachelor's degree in animal sciences and industry from Kansas State University. My wife, Nicky, and I live near Herington, Kansas with our five children.

Price discovery, market transparency, access to additional processing capacity, and proper oversight of cattle markets is important to me and all cattle producers. However, neither of the bills being discussed today represent the right approach to these issues. I am opposed to these bills and ask that the committee not advance either S. 4030 or S. 3870 in their current form.

The Cattle Price Discovery and Transparency Act of 2022 (S. 4030) would establish a mandatory minimum level of fed cattle trade under approved pricing mechanisms in each of five to seven geographic regions across the country. The initial minimum levels would be established not by economic analysis, but by the average percentage of negotiated cash and grid purchases between January 1, 2020, and January 1, 2022.

The vast majority of cattle producers oppose government mandating a minimum level of negotiated trade. In February, members of NCBA adopted policy opposing government mandates on cattle marketing methods. KLA joined with 29 other NCBA affiliates in a letter to this committee expressing opposition to marketing mandates. In January, the American Farm Bureau Federation took a position in opposition to marketing mandates. Having participated in both the KLA and NCBA policy process, I can tell you those members overwhelmingly believe cattle producers should have the opportunity to market their cattle how they see fit without arbitrary limitations imposed by the federal government.

Effective price discovery in the fed cattle market is essential to a healthy, functioning market. There is broad agreement among cattle producers on the importance of effective price discovery. Negotiated fed cattle trade is a component of effective price discovery. That's why over the past

18 months cattle feeders have made it a priority to increase negotiated trade levels. The result has been significantly higher negotiated trade levels in both the Texas/Oklahoma/New Mexico and Kansas Livestock Mandatory Reporting (LMR) regions. We didn't need a government mandate to do this. Cattle feeders recognized the need for more negotiated trade and took steps to achieve it for themselves. These voluntary efforts have improved negotiated trade, but left room for producers to be flexible in response to various market dynamics. I have attached graphs at the end of my testimony showing negotiated trade numbers in Texas/Oklahoma/New Mexico and Kansas. Included in the graph is trend line for each region, with both heading higher.

Tiffany Cattle Company is a custom cattle feeding business. That means the cattle in our feedyards are owned by other cattle producers. The cattle owner places their cattle with us to provide feed and care during the finishing phase. One of the services we provide our customers is marketing their cattle when they are ready for harvest. We work with multiple packers using several different marketing methods to maximize the value our customers receive for their cattle. A mandated minimum level of negotiated trade will limit my ability to maximize the value my customers receive for their cattle. Furthermore, a mandate on the packers will force packers to discontinue some alternative marketing arrangements (AMAs) to meet an arbitrary minimum negotiated trade mandate. Which of my customers will lose their ability to access value added marketing when this happens? Neither myself, nor my customers, will be given the option to choose because the mandate, and the power to comply with the mandate, will be on the packer.

Cattle producers have made the decision to move away from negotiated cash trade, and instead use AMAs. This shift has not been driven by packers, but by producers. There are many reasons for this. AMAs allow a cattle producer to capitalize on investments in improved genetics and production practices. AMAs allow the cattle producer to capture more of the value when their cattle yield beef products with attributes consumers desire.

My brother and I built our business from 2500 head, initially, to finishing approximately 70,000 head per year and went from 10 customers to over 200 customers by having access to quality-based premium programs. Not only has our own business grown but our customers' operations have as well because AMAs allow them to be paid for the exceptional quality cattle that they raise. My typical customer has fewer than 200 cows and will retain ownership of their calves in order to receive the true value for their efforts and, just as importantly, to receive the carcass data to make breeding decisions for continued improvement on their ranches.

Tiffany Cattle is also engaged in efforts to produce beef with lower total greenhouse gas emissions. This program requires an AMA to facilitate the supply-chain coordination necessary to connect these products to consumers willing to pay for that certification. We also feed a high percentage of NHTC or Non-Hormone Treated Cattle and Natural Program cattle. These labels rely on AMAs to ensure the cattle producer who has taken on the additional expense of gaining that certification is assured access to a market willing to pay for the added value.

Increased use of AMAs is correlated with improved beef quality. When packers pay for quality, farmers and ranchers are incentivized to produce it. In 2000, about 60% of fed cattle graded choice or better. Today, more than 80% of fed cattle grade choice or better. In my own operation we have averaged 92% choice or higher in all marketings for the last 10 years. That improved

quality has led to better beef eating experiences, which has led to increased consumer demand for beef, both domestically and internationally. AMAs have helped the cattle industry better meet consumer preferences. Consumers are gravitating to our beef because of the high quality and the unique brands we have developed. When competitor proteins are at a much lower price point, the cattle industry must prioritize quality if we wish to compete. I ask Congress not to limit my use of AMAs, which have helped make these quality improvements possible.

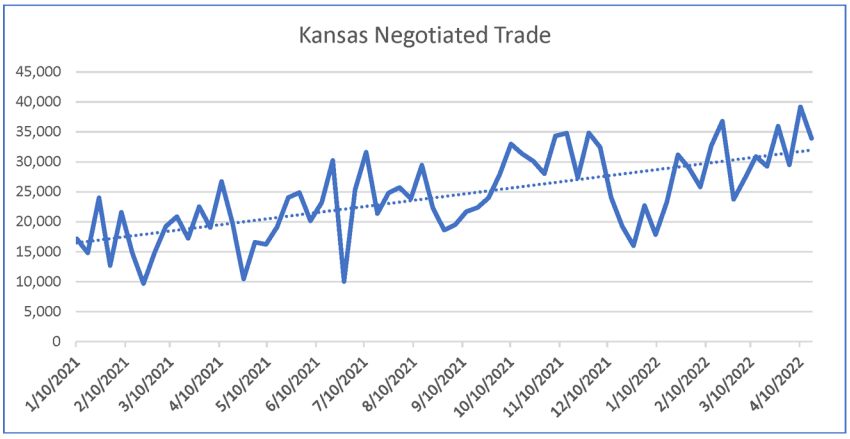
The Meat and Poultry Special Investigator Act of 2022 (S. 3870) would establish the Office of the Special Investigator for Competition Matters within the U.S. Department of Agriculture (USDA). I support proper oversight of cattle and beef markets, but I am concerned adding another layer of bureaucracy will only confound efforts to ensure fair and competitive markets. USDA already has the authority to protect cattle producers from unfair markets. The Packers and Stockyards Division conducts investigations under the Packers and Stockyards Act (PSA) and regularly refers enforcement action to the Department of Justice (DOJ). DOJ has attorneys skilled in antitrust matters and regularly pursues enforcement. While we may not always like the speed or transparency, which DOJ investigates PSA matters, it doesn't mean PSA referrals are going unattended or being mishandled. If Congress cannot point to an actual instance of DOJ misapplying the law, for what purpose does growing government and adding duplicative enforcement authority accomplish? I would encourage this committee to work with USDA and DOJ to determine what additional resources are needed by the Packers and Stockyards Division to effectively enforce competition rules.

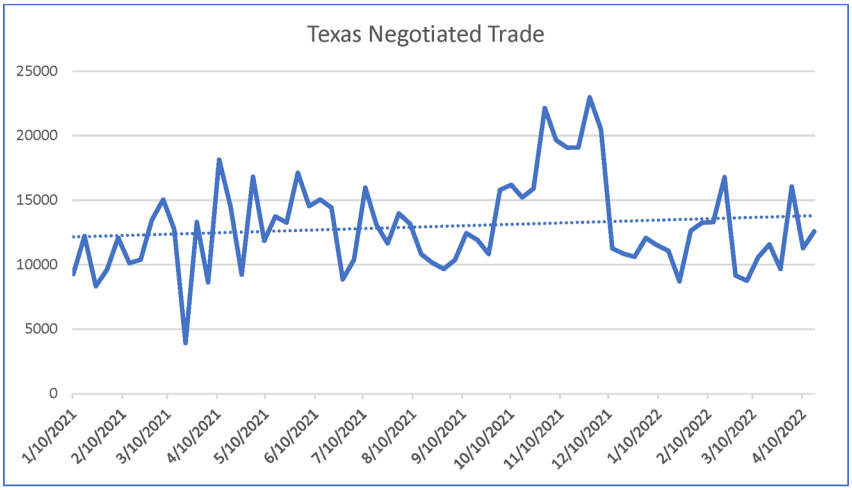
While we oppose both S. 4030 and S. 3870, there are a number of ways members of Congress can support the cattle industry. Cattle producers would benefit from more packers and packing capacity. Congress should pursue opportunities to eliminate or reduce the regulatory barriers to entry in beef packing. Congress also should pursue changes to agricultural guest worker programs to better address the labor needs of the beef industry. We support timely reauthorization of LMR. We recommend adding Wyoming fed cattle trade to the Colorado region and South Dakota and Illinois to the Iowa/Minnesota region. The creation of a cattle contracts library has the potential to provide useful information for market participants.

A government mandate to require cash trade of fed cattle is a big gamble for the cattle industry, and I ask the Senators on the Committee to consider this path carefully before taking away a producer's ability to operate as they choose, free of government intervention. I caution against taking away the personal freedoms and free choice ranchers currently enjoy on how to run our ranches, farms and feedyards. The government's track record of establishing red-tape and bureaucracy is not something I wish to have thrust upon myself and my fellow ranchers as we go about the day-to-day business of marketing our cattle. Putting the government in charge of determining how and where AMAs can be utilized in the future will hinder American farmers and ranchers.

The market dynamics over the last two years have been difficult. The key driver has not been how fed cattle are sold. The reality has been we have had more market-ready cattle coupled with diminished and vulnerable processing capacity. Turning over marketing decisions to Washington bureaucrats will not yield the market results desired by the proponents but will yield unintended consequences that could be devastating for cattle producers.

Every producer wants fair market value for the animals we raise and produce and many of us achieve that true value through value-based AMAs. Accordingly, I do not support a government mandate, of any kind. Regardless of how well intentioned, the end result will be fewer marketing options for U.S. producers. Fewer making options will disincentive U.S. producers from investing in superior genetics and production techniques, and ultimately resulting in lower quality U.S. beef products for consumers.







TESTIMONY OF SHELLY ZIESCH

Owner/operator of Ziesch Ranch
Pettibone, North Dakota

District 6 Director, North Dakota Farmers Union
National Farmers Union

SUBMITTED TO THE U.S. SENATE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY

"Legislative Hearing to Review S.4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022"

April 26, 2022

215 Dirksen Senate Office Building

Washington, D.C.

Introduction

Chairwoman Stabenow, Ranking Member Boozman, members of the committee, thank you for the opportunity to testify today. My name is Shelly Ziesch, and I am a fourth-generation rancher from Pettibone, ND. My husband Robin and I have been farming and ranching together for over 30 years. Today, our commercial cattle operation includes roughly 600 cow/calf pairs. We background most of our calves and finish a small percentage that is processed locally. We also raise corn, soybeans, wheat, oats and alfalfa. Like many family farmers and ranchers, we are managing our operation for the future and doing everything we can to create new opportunities for the next generation. We have two daughters who are actively involved in ranching and one who is interested in returning to the ranch when she graduates college.

I also serve on the board of directors for North Dakota Farmers Union (NDFU), which represents over 50,000 farm, ranch, and member families. I represent District 6, which includes nine counties in central North Dakota. I am testifying today on behalf of both NDFU and National Farmers Union (NFU).

In 2020, I chaired an ad hoc livestock committee NDFU established in response to wide disparities between live cattle and boxed beef prices. In fact, in the six weeks leading up the committee's first meeting, the spread between boxed beef and fed cattle prices increased by over 300 percent.[1] While those price swings were directly attributed to coronavirus pandemic-related disruptions, they also underscored the dangers of a highly concentrated food system. As a result, the committee's purpose was to develop rancher-oriented policy solutions to create a fairer marketplace for cattle producers. The committee identified seven policy proposals that are intended to:

- Increase competition and fairness in the cattle and beef industries;
- Establish transparent, truthful labeling on beef products; and
- Increase local and regional slaughter capacity.

In 2021, NFU launched the "Fairness for Farmers" campaign, an effort to shed light upon the devastating impact that monopolies have had on family farmers and ranchers. In addition to raising awareness of these problems, the campaign calls for legislative action including reforming the Packers and Stockyards Act (PSA), improving price discovery and transparency, diversifying marketing opportunities, and antitrust enforcement.[2] Today, most sectors in America's farm and food system are heavily consolidated and dominated by a small handful of multinational corporations, and this is particularly evident in the livestock sector.

One of Farmers Union's chief concerns in the cattle industry is the impact the decline in negotiated trades has on price transparency and discovery. While we recognize the benefits of alternative marketing arrangements as an option for cattle producers, the cash market serves as the basis for all cattle prices. On our operation, we sell our cattle through a combination of cash sales and forward contracts. We use the cash price we receive to help us determine a fair market value for our cattle, which informs our negotiations for forward contracts. Without the transparency a robust cash market provides, I am at a disadvantage when marketing my cattle, regardless of marketing arrangement.

NDFU initially was a strong supporter of S. 949, commonly referred to as the "50/14" bill. We believe establishing a floor for the cash market is critical to promoting a fair and transparent marketplace. While

[1] U.S. Department of Agriculture (USDA), Agricultural Marketing Service (AMS), "Boxed Beef and Fed Cattle Price Spread Investigation Report," July 22, 2020.
https://www.ams.usda.gov/sites/default/files/media/CattleandBeefPriceMarginReport.pdf
[2] https://nfu.org/fairness-for-farmers/

we are disappointed the 50/14 bill has not attracted a broader base of support, our top priority is finding a way to move this issue forward. We recognize the delicate balance required to address concerns from all stakeholders and appreciate the work that has gone into developing S. 4030, the Cattle Price Discovery and Transparency Act. The bill takes meaningful steps toward protecting transparency in the cattle market.

The Cattle Price Discovery and Transparency Act includes several provisions that will promote fairness and transparency in cattle markets. The establishment of regional minimums for negotiated trades will improve and preserve price discovery. The bill also requires 14-day slaughter reporting, expedites carcass reporting, and mandates reporting of cutout yield, all of which will give producers deeper insight into the market and better leverage when negotiating prices for their cattle. Finally, the bill establishes a cattle contract library, which will improve transparency among alternative marketing arrangements (AMAs).

Farmers Union is also a strong supporter of the Meat and Poultry Special Investigator Act (S.3870), which would strengthen enforcement of existing competition laws. Since its founding, Farmers Union has been committed to restoring and enhancing competition in agriculture. Farmers Union members were strong supporters of the PSA when it was enacted more than 100 years ago. Yet, lax enforcement in the last few decades has left consolidation and anticompetitive practices largely unchecked. Since 1977, the share of the meatpacking market controlled by the four largest packers increased from 25 percent to 85 percent.[3] As a result, farmers and ranchers have been deprived of marketing choices, innovation, fair prices, and equal treatment.

The U.S. Department of Agriculture (USDA) and Department of Justice (DOJ) need stronger tools to enforce existing antitrust laws. The Meat and Poultry Special Investigator Act would provide USDA the authority and resources it needs to address anticompetitive behavior when it arises. The bill also provides the cross-agency collaboration necessary to address monopolistic practices within the industry. Put simply, the bill will make sure that existing laws are enforced the way Congress intended.

Recent Activity and Policy Statements

The COVID-19 pandemic brought unprecedented disruptions to the economy, and the harmful effects of consolidation and lack of competition in the cattle sector was made clear to the general public. Fortunately, Congress and the Biden Administration have taken steps to secure a fairer market for family farmers and ranchers. In July 2021, NFU President Rob Larew testified at a Senate Judiciary Committee hearing focused on competition in the beef industry,[4] and Oklahoma Farmers Union president Scott Blubaugh testified on a similar topic at the House Agriculture Committee in October 2021.[5] Discussion during these hearings demonstrated bipartisan support for boosting competition and transparency in the heavily concentrated meatpacking industry.

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[3] Congressional Research Service, "Livestock Marketing and Competition Issues," RL33325, January 30, 2009. https://www.everycrsreport.com/reports/RL33325.

[4] Testimony of President Rob Larew, National Farmers Union. Submitted to the U.S. Senate Committee on the Judiciary, "Beefing up Competition: Examining America's Food Supply Chain," July 28, 2021. https://www.judiciary.senate.gov/imo/media/doc/Larew%20-%20Testimony.pdf

[5] Testimony of Scott Blubaugh, President, Oklahoma Farmers Union. Submitted to the U.S. House Agriculture Committee, October 7, 2021. https://docs.house.gov/meetings/AG/AG00/20211007/114110/HHRG-117-AG00-Wstate-BlubaughS-20211007.pdf

The Biden Administration's Executive Order 14036 "Promoting Competition in the American Economy," issued in July 2021, made an important commitment to restoring fairness to our economy.[6] With that directive, USDA has taken steps accordingly. To diversify marketing options, USDA has solicited public input and provided funding to the Meat and Poultry Processing Expansion Program.[7] USDA is preparing new proposed rules for the PSA and has enacted a new enforcement policy that aims to help address the unfair treatment of farmers and ranchers.[8] Just last week, the USDA Agriculture Marketing Service (AMS) held a public listening session to explore the best ways to set up a pilot project for a cattle contract library, which was directed by Congress in the Consolidated Appropriations Act of 2022.[9] Further action by the Biden Administration includes a cross-agency effort between USDA and DOJ, known as Farmer Fairness, to receive reports from farmers and ranchers who have been harmed by anticompetitive practices. [10]

During the NFU convention in March 2022, Farmers Union delegates adopted a special order of business that calls for "legislation that would strengthen antitrust laws, reverse the trend of consolidation, and protect family farmers and ranchers from anticompetitive practices." Further, the preamble to Article III of the 2022 NFU Policy Book states that independent producers cannot succeed in the agriculture economy without protection from unfair, anti-competitive practices, and urges that "competitive provisions should be established that ensure fairness, transparency, protection, and bargaining rights for producers, and restore and enhance competition for agricultural markets."[11]

Today's hearing is timely. As Farmers Union policy states, and as so many farmers and ranchers have told this committee, there is a great need for transparency and price discovery in the cattle market. Furthermore, USDA, DOJ, and other agencies must have the resources and clear directives necessary to enforce our existing competition laws. Farmers and ranchers need action on the two bills being considered today. I urge the committee to approve these bills and look forward to their final passage and enactment.

S.4030, The Cattle Price Discovery and Transparency Act of 2022

High levels of concentration give meatpackers incredible levels of market power and market influence. The packers' control of the market also gives them significantly more market information than cattle producers. While mandatory price reporting does not level the playing field between packers and producers, it does ensure that all market participants have access to basic information.

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[6] The White House, "Executive Order on Promoting Competition in the American Economy," July 9, 2021. https://www.whitehouse.gov/briefing-room/presidential-actions/2021/07/09/executive-order-on-promoting-competition-in-the-american-economy/

[7] https://www.rd.usda.gov/programs-services/business-programs/meat-and-poultry-processing-expansion-program

[8] "USDA Celebrates Landmark Agricultural Legislation's Century of Service by Committing to Maximum Enforcement of the Packers and Stockyards Act," August 24, 2021. https://www.ams.usda.gov/press-release/usda-celebrates-landmark-agricultural-legislation%E2%80%99s-century-service-committing

[9] "USDA to Host Listening Session on Cattle Contract Library Pilot Program Development," April 11, 2022. https://www.ams.usda.gov/content/usda-host-listening-session-cattle-contracts-library-pilot-program-development

[10] https://www.usda.gov/farmerfairness

[11] National Farmers Union, *Policy of the National Farmers Union*, (March 2022). https://nfu.org/policy/

Last year, I marketed roughly 600 head of cattle in a year where 33.8 million cattle were commercially slaughtered in the United States.[12] A packer who controlled 20 percent of the industry would have purchased roughly 6.76 million cattle. On an average day, that packer would have access to price information from 26,000 cattle sales. That packer receives 43 times as much information on the cattle market in a single day than I would have in an entire year. Price reporting is important to all cattle producers because it brings transparency to a market environment where there are otherwise significant disparities in information available to producers and processors. That is also why transparency in the marketplace is critical to my ability to negotiate fair prices for my cattle.

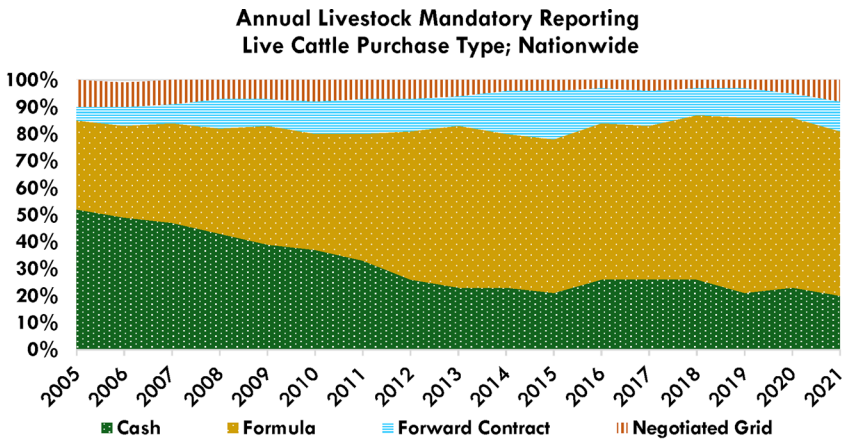
Congress passed the Livestock Mandatory Reporting Act (LMRA) in 1999 in response to concerns about AMAs and high levels of concentration in the meatpacking industry. LMRA resulted in mandatory price reporting of most transactions for livestock, and it has been renewed and amended multiple times.[13] While LMR has been beneficial for price discovery in general, the continued erosion of the cash market for cattle is undermining its benefits. AMAs can be valuable tools for producers, creating opportunities to lock in prices, guarantee market access and reduce transaction costs. However, the cash market serves as the basis for pricing through AMAs. Negotiated trades also provide the greatest level of transparency in the market. Ensuring a robust cash market is thus important for improving and preserving transparency and price discovery in the cattle market.

In the last 15 years, the level of cash trades has declined dramatically. Nationally, cash trades have declined from 52 percent of all trades in 2005 to 20 percent in 2021. Over the same time frame, formula trades increased from 33 percent to 61 percent (see figure below).[14] This change allows packers greater control over the cattle supply and price discovery.

[12] USDA National Agricultural Statistics Service (NASS), "Livestock Slaughter, 2021 Summary," April 2022. https://www.nass.usda.gov/Publications/Todays_Reports/reports/lsan0422.pdf

[13] Mathews, Brorsen, Hahn, Arnade, and Dohlman,"Mandatory Price Reporting, Market Efficiency, and Price Discovery in Livestock Markets," USDA, Economic Research Service (ERS), LPDM-254-01, September 2015. https://www.ers.usda.gov/webdocs/outlooks/37626/53727_ldpm-254-01.pdf?v=5345

[14] USDA AMS "Annual LMR Live Cattle Purchase Type Breakdown by Region." https://www.ams.usda.gov/sites/default/files/media/LMRLiveCattleAnnualPurchaseTypeBreakdown.pdf



Price discovery from a cash market

Packers prefer AMAs because they can reduce procurement and transaction costs and allow plants to operate closer to capacity more consistently. AMAs also have benefits for livestock sellers, allowing us to lock in prices, guarantee market access, and reduce transaction costs. However, AMAs are also associated with lower negotiated cash prices. A thinly traded cash market is susceptible to manipulation, resulting in producer prices lower than they otherwise would be with a more robust cash market. Ultimately, AMA prices are also negatively impacted, because many packer pricing formulas and contract prices are based on cash prices. This trend toward thinner and thinner cash markets is eroding cash and AMA prices alike.[15]

Greater use of AMAs also reduces price discovery within cattle markets. Declining transparency and price discovery should be addressed, in part, by establishing a minimum level of cash transactions in the marketplace. Preserving cash trades as an option for cattle producers will ensure that all market participants continue to have access to price discovery.

By establishing regional mandatory minimums for negotiated trades, S.4030 takes important steps toward protecting price transparency in the cattle market. The bill requires the Secretary to establish five to seven regional minimums for "approved pricing mechanisms" effectively establishing a floor for negotiated trades. Those minimums will be established through an open and transparent process that gives cow/calf producers, feeders, and packers an opportunity to provide input. The bill also requires regular reviews of those minimums to ensure that the floor for negotiated trades continues to reflect market conditions.

[15] USDA, Grain Inspection, Packers and Stockyards Administration (GIPSA), "Investigation of Beef Packers' Use of Alternative Marketing Arrangements," July 2014.

The bill also strengthens price reporting by expediting carcass weight reporting, and importantly, by mandating reporting of cutout yield data. The spread between boxed beef and fed cattle prices has been a major concern among cattle producers in recent years. Following the dramatic divergence between boxed beef and fed cattle prices in the early months of the coronavirus pandemic, it took nearly 18 months for the spread to fall back to five-year average levels.[16] Giving cattle producers greater access to cutout yield data will improve their ability to negotiate prices that better reflect consumer beef values.

The Cattle Price Discovery and Transparency Act's 14-day slaughter reporting requirement also improves cattle producers' negotiating position. The requirement will ensure that cattle producers can project estimated slaughter numbers and packer needs for cattle. This will give producers a better understanding of supply and demand dynamics that impact the value of cattle.

Cattle contract library

The Cattle Price Discovery and Transparency Act requires USDA to establish and maintain, through the Livestock Mandatory Reporting program, a cattle contract library, which provides information included in contracts between packers and producers for the purchase of fed cattle. This contract library is intended to aid in the price discovery process and provide equal access to market information for all market participants. The concept is already being piloted but needs to be made permanent.

For my operation, a contract library would provide better transparency. The contracts we use to market our cattle vary from sale to sale. As a basic example, some of our contracts have a six-cent slide, and some have an eight-cent slide. A cattle contract library will give producers better information about all the different contract elements that may be helpful or detrimental to their operation. The library can help producers establish a template to use in future negotiations. Put simply, the cattle contract library gives us a better sense of what we should ask for and what we should avoid when negotiating contracts.

S.3870, The Meat and Poultry Special Investigator Act of 2022

The 2017 reorganization of USDA diminished the standing of the Packers and Stockyards Division (PSD) and placed it within USDA AMS. Reducing the resources available to this important division, which is charged with "protecting fair trade practices, financial integrity, and competitive markets for livestock, meat, and poultry," has been the wrong approach. Instead, greater emphasis should be placed on this important work, especially because the PSA has been underenforced in recent decades.[17] Given the high level of concentration in the market and price divergences over the last several years, it is imperative that our antitrust laws work the way Congress initially intended.

The Meat and Poultry Special Investigator Act of 2022 would help ensure that independent farmers and ranchers have a chance to succeed. A special investigator's office dedicated to upholding competition laws and confronting corporate control in agriculture will be able to use subpoena power to shed light on illegal market activities. Investigations surrounding violations of the PSA, using a staff of experts and

[16] Kansas State University, Livestock & Hay Charts, "Choice-Select Boxed Beef Spread," March 21, 2022. https://www.agmanager.info/livestock-meat/livestock-marketing-charts/choice-select-boxed-beef-spread

[17] United States Government Accountability Office (GAO), Testimony before the Committee on Agriculture, Nutrition, and Forestry, United States Senate, "Packers and Stockyards Programs: Continuing Problems with GIPSA Investigations of Competitive Practices," March 9, 2006. https://www.gao.gov/assets/gao-06-532t.pdf

attorneys, could expose wrongdoing and restore accountability in the marketplace. The special investigator's office would also promote cross-agency collaboration, working with DOJ and the Federal Trade Commission (FTC) to closely study and pursue action against potential abuses broadly in agriculture or in trade and could also work with the Department of Homeland Security to protect against abuses that would threaten our food supply infrastructure. Further and effective enforcement of the PSA and other fairness measures is critical to the long-term viability of independent farms and ranches.

Packers and Stockyards Act: Rulemaking and Enforcement

NFU is heartened that President Biden's executive order on competition reaffirms the government's commitment to the principles that led to the passage of the PSA and specifically mentions the need for the Secretary of Agriculture to initiative rulemakings under the PSA "to address the unfair treatment of farmers and improve conditions of competition in markets for their products."[18] As USDA prepares rulemaking to strengthen the PSA, the department should ensure that it is not necessary to show a competitive injury broadly to find an action of a packer, swine contractor, or live poultry dealer to be unlawful under the PSA. As USDA has repeatedly argued in court cases, the unambiguous language of section 202(a) and (b) of the PSA does not require any proof of an adverse effect on competition or of restraint of commerce or trade. The legislative history of the PSA shows that Congress intended to prohibit actions that give undue and unreasonable preferences without regard to whether they restrain trade, create a monopoly or control prices.[19]

More generally, the update to the PSA should provide greater clarity about what practices in the meat and poultry industries constitute unfair, unjustly discriminatory, or deceptive practices, and thus violate the PSA. Particularly close attention should be paid to prohibiting unfair practices regarding grower ranking systems or "tournaments," which have been prevalent in the poultry sector. PSA rulemaking should also institute anti-retaliation protections that help ensure farmers' right to association and so that farmers can speak up about unfair treatment without fear of retribution.

Efforts to support local and regional processing facilities

The COVID-19 pandemic highlighted how large, seemingly efficient systems of production can falter when there are shocks to those systems. Local and regional food systems also faced disruptions but were often better positioned to adapt rapidly to new conditions and protect against shocks, given their shorter supply chains and more direct connection to consumers.[20] Strengthening local and regional supply chains would promote greater competition in the cattle and beef industries. Local and regional slaughter facilities would also create new opportunities for ranchers.

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[18] Executive order 14036 of July 9, 2021, "Promoting Competition in the American Economy," Federal Register Vol. 86, No. 132, July 14, 2021. https://www.federalregister.gov/documents/2021/07/14/2021-15069/promoting-competition-in-the-american-economy

[19] Congressional Research Service, "USDA's GIPSA Rule' on Livestock and Poultry Marketing Practices," R41673, January 7, 2016. https://crsreports.congress.gov/product/pdf/R/R41673

[20] Dawn Thilmany, Elizabeth Canales, Sarah A. Low, and Kathryn Boys, "Local Food Supply Chain Dynamics and Resilience during COIVD-19," *Applied Economic Perspectives and Policy*, October 26, 2020. https://onlinelibrary.wiley.com/doi/full/10.1002/aepp.13121

NDFU members are concerned by the high level of control that just a handful of companies have in the beef market. However, it is also important to note the geographic concentration that exists within the industry. Most of the cattle we raise on our ranch are sold into the Nebraska market. Nebraska has the highest commercial slaughter levels in the country, with a capacity of 6.9 million head in 2021. North Dakota's slaughter capacity was comparatively low, with a capacity of just 12,300 head in 2021.[21]

The lack of local and regional options limits opportunities for North Dakota ranchers to feed and finish our own cattle. Without local slaughter facilities, we are forced to transport our cattle hundreds of miles. Transporting livestock is costly for ranchers and stressful on livestock. When cattle get stressed, they lose weight, decreasing their value. These economic realities put producers in states like North Dakota at a competitive disadvantage. As a result, many North Dakota producers are forced to export their cattle to other states where feeding and finishing those cattle is more economically viable. Furthermore, when we do finish and process cattle locally, we must reserve shackle space more than a year in advance.

Increasing local and regional slaughter capacity will create opportunities for cow/calf producers to add value to their cattle on their own operations. Thankfully, action is being taken on this front. USDA has made $1 billion available through loan guarantees, gap financing and technical assistance to support new and expanding local and regional slaughter facilities. USDA has also provided various programs to help small and very small processing facilities weather the challenges they faced during the COVID-19 pandemic.

Beyond increased capacity, it is also important that regulatory frameworks provide reasonable flexibility to small and very small processing facilities. Federal inspector requirements and fees can be burdensome for small facilities, causing many to operate under federally approved state inspection programs. However, despite the fact that state inspection programs must meet a standard of at least equal to federal inspection standards, state-inspected meat is not allowed to be sold across state lines. We support allowing interstate sales of state-inspected meat and providing appropriate regulatory flexibility that reflects the operating conditions in small and very small facilities.

Conclusion

We urge you to act quickly to pass the Cattle Price Discovery and Transparency Act and the Meat and Poultry Special Investigator Act. Achieving greater transparency, price discovery and fairness in the cattle market is critical to the survival of family farms and ranches. Together, these two bills will ensure cattle producers have access to basic market information and are protected from anticompetitive behaviors.

Thank you for holding this hearing today and for the opportunity to testify. I appreciate the committee's attention to these important matters and I look forward to answering any questions you may raise.

[21] USDA NASS, "Livestock Slaughter, 2021 Summary," April 2022. https://www.nass.usda.gov/Publications/Todays_Reports/reports/lsan0422.pdf

Structure in the Cattle and Beef Industry and the Need for Mandated Cash Market Participation

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APRIL 26, 2022
WRITTEN TESTIMONY FOR THE COMMITTEE ON AGRICULTURE, NUTRITION, AND FORESTRY OF THE U.S. SENATE

Chairwoman Stabenow, Ranking Member Boozman, and Members of the Committee, thank you for having me be part of this hearing. I am a professor and extension economist in the Department of Agricultural Economics at Colorado State University. I have been on faculty at Colorado State University for 24 years. Prior to that I was on faculty at Michigan State University and Oklahoma State University. I have taught, delivered extension education programming, and conducted research at the Land Grant universities for which I have worked for 32 years. My research long-term academic research focuses on livestock and meat product markets. Most of my work on the cattle feeding and meatpacking industrial organization has been in service to this body. I was a member of multi-institution research team that worked on the cattle and beef portion and the downstream portion of the Congressionally mandated ***2007 USDA Grain Inspection Packers and Stockyards Administration – Research Triangle Institute – Livestock and Meat Marketing Study***. And I was also part of the Oklahoma State, Kansas State, and Iowa State University faculty team that worked on parts of the Congressionally mandated ***1996 USDA Packers & Stockyards Administration Concentration in the Red Meat Industry Study***. These are the most substantial studies to date of the cattle and beef industry and all the economic concepts while many of the specific results of those works remain relevant today. I have worked and continued to work on market power questions within the cattle and beef industry. Most recently I have been studying the relationship between the thinning cash trade and price discovery in fed cattle and beef markets.

To address to the bottom line first. Mandating cash trade will cause substantial disruptions and higher costs to participants in the fed cattle market. These costs will be passed upstream to cow-calf producers – and to a lesser extent downstream to consumers. This is a foundational result from the existing body of peer reviewed research. The cost is at least in the hundreds of millions of dollars annually and is more likely over a billion of dollars. Research is also clear in that there is no evidence that mandating cash trade will improve prices in the fed cattle market or upstream to cattle producers. There is no research nor documented evidence that there is any benefit much less a benefit similar to well-documented costs. The cost-benefit assessment of mandatory cash trade is conclusive, settled, and one-sided. Details associated with proposed policies are important. But the definiteness of the relevant economics is clear.

Further, the bottom line on the price discovery and volume of negotiated cash trade research is that there is little to no simple relationship between the volume of cash trade and objective measures of price discovery. Substantial price discovery occurs at relatively large cash volumes and substantial price discovery occurs at very small volumes. There are also large variations in the amount of objective price discovery that occurs across regional USDA AMS markets and the volume in those markets. There is no basic recommendation that a certain minimum cash trade will result in significant price discovery.

Returning to the big picture, the structure that we see today of the meatpacking and cattle feeding industries has been determined by economics and the environment. Industry structure is the number of firms, the number of business units within firms, the size of these firms, geographic dispersion, and other aspects related to the footprint of these industries. Both industries provide the needed services

for the lowest cost. Both industries have also been innovative and have made substantial improvements in the quality of food products offered.

The impact of the environment on the cattle and beef markets is straightforward. Cattle consume forage and live and grow outdoors in a relatively slow biological process. The underlying beef cow herd is also dispersed across the continent. It is concentrated in areas where the cattle enterprises do not compete with crop production but where there are grasslands, pastures, and forage production. Relative profitability of cow-calf enterprises creates incentives or disincentives to expand or contract the national herd. But this profit motive must be supported by available forage. It is in the context of this variation in beef cow and calf numbers that the cattle feeding and meatpacking industries offer services, create opportunities and wealth, offer products to domestic and international consumers, and are faced with constraints and limits. Cattle feeders and meatpackers make strategic and operational decisions well-after underlying industry size decisions, in terms of available animal numbers, are made.

At the other end of the market channel, it is also important to recognize that all revenue available to cattle and beef industry participants originates from consumers. The cow-calf industry only has economic success if it and the downstream participants – cattle feeding and meatpacking – offer products and services that result in products in which the consumer is interested. These products and services must be offered in combination as each step creates value and economic opportunity. There are no other industries outside of cattle and beef of which I am aware that work in their entirety in this type of setting – whereby supply decisions, demand revelation, and changing the product form are in distinctly different industries. Coordinating the system is difficult.

Returning to the idea that economics has determined industry structure. The meatpacking industry is comprised of large firms owning multiple and geographically disperse large plants. These large plants are substantially more cost efficient than small plants and can pay more for inputs such as cattle. Prior to the COVID period, reasonable and approximate costs of beef animal slaughter and fabrication for the most efficient plants were $180-$210 per head. Modestly smaller commercial sized plants had costs of about $300-$425 per head. And very small local plants had costs of about $600-$750 per head. Large plants are very efficient but require substantially more animals to realize this efficiency. The largest plants require something on the order of 20-25 thousand animals per week to achieve these economies. Modestly smaller plants might process 8-10 thousand head per week. While the smallest plants may only require several hundred head per week. Nationally, there are slightly more than 30 individual plants that slaughter and fabricate about 20 million animals. The substantial economies of size in this industry are a well-known research result. These plant economies of size are leveraged by unified management and marketing personnel. This marketing function reaches internationally.

Similar economies or efficiencies are observed in the cattle feeding industry. Relatively smaller and usually diversified feeders in the upper Midwestern US might only feed several hundred to several thousand head per year. While larger commercial feeders further south and west would have one-time capacity at any single location larger than this amount. These larger commercial feeding enterprises specialize in feeding cattle often in multiple locations. Specifics of the relative costs for this industry are less well known and less easy to document. These often depend on local climate, feed availability, animal availability and distance to the closest packer, and local ability to use animal waste. But like the packer, the spreading of fixed costs associated with the feeding operation across as many animals as possible given capacity creates substantial economies of size.

These economies benefit not just the feeding and packing industries, but also consumers in terms of increasing the volume of product offered and lowering the price. The same is true for producers but with a reversed price impact. Cow-calf producers have and will market more animals at higher prices. Without size economies beef prices for consumers would be substantially higher and cattle prices for producers would be substantially lower.[1]

Both industries have also been creative and innovative in pursuit of continued improved efficiencies and expanded quality offerings. Once economies of size have been largely realized the next opportunities were in lowering transactions costs associated with variations in the flow of fed animals and beef through the system. The individuals worked to better coordinate the system. Alternative marketing arrangements are essential in this cost cutting and efficiency gaining exercise. Individuals are rewarded for innovation and then the innovations became the industry standard. These alternative marketing arrangements optimize the performance of group/pens of cattle and help optimize the performance of large packing facilities. These gains were well documented in the USDA-RTI Study. Those basic economic assessments remain today and are without doubt much larger.

In the cattle industry, alternative marketing agreements (AMAs) are formulas and forward contracts. These marketing methods are alternatives to using the cash market. Formulas value cattle transactions based on usually USDA AMS reported regional prices as the base with premiums and discounts assessed based on the agreement between the feeder and packer. Forward contracts are transactions that are valued today and delivered at least 30 days into the future. AMAs are reasonably worth about $25 per head for animals marketed through AMAs to the cattle feeding enterprise. This valuation can be considerably higher. AMAs are also worth about $25 per head to the packer. This is a reasonable valuation for most packers but for some the valuation is modestly lower while for others it is higher. What are the sources of these benefits?

For the cattle feeding enterprise, it is mainly improved cattle management – improved management of the individual pens of cattle. The improved cattle management also allow the targeting and securing of quality premiums. These premiums are from a variety of sources – animals may be fed to specific carcass yield programs, meat quality programs, or programs looking for specific characteristics such as natural, organic, source verified, and international market requirements. There is an increasing multitude of market outlets that require some level of coordination beyond negotiating today for delivery in the next two weeks. This improved cattle management cannot simply be secured through use of the negotiated grid. This is because negotiations in any given week can fail and failure impacts management of the individual pen of cattle, cascades into groups of animals, and entire feeding enterprise. Formula use improves the functioning of the entire market – both cash and AMA.

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[1] The efficiency versus market power question has been asked often of the meatpacking industry. The findings are rather conclusively that efficiency gains are larger and that the industry is relatively competitive. See for example the early work Lopez, R. A., A. M. Azzam, and C. Liron-Espana. 2002. "Market Power and/or Efficiency: A Structural Approach." *Review of Industrial Organization* 20:115-126. And see a recent assessment Azzam, A. and S. Dhoubhadel. 2022. "COVID-19, Beef Price Spreads, and Market Power." *Journal of Agricultural and Resource Economics* (in press). The conclusion in this recent work is that fed cattle prices are competitive as opposed to exhibiting market power. Finally – Bouras, D. and A. Azzam. 2013. "Market and Welfare Effects of Multi-product Mergers with Reference to the Tyson-IBP Merger." *Journal of Business and Economics Research* 11:521-536 – offer the following, "we infer that the Tyson-IBP merger has generated the cost-efficiencies necessary to make consumers and livestock producers better off."

For the packer, AMAs also improve operations of the slaughter and fabrication facilities. Facilities with more AMA use have lower costs, operate at larger volumes, can better manage or maximize capacity utilization, and have more consistent volumes all of which combine for lower costs. Further, AMAs and formulas are important to develop and source supplies of animals with specific characteristics. Thus, like the feeding industry, the benefits to the packing industry are two-fold. More efficient operations with lower costs and improved end-product quality and different kinds of quality. These efficiencies and improved quality are not minor – values are substantial. This is a research conclusion.[2]

The incentive to not use the cash market is observed by both sides of the market. The main incentive is to timely market animals and the incentive is mainly realized by the cattleman or the cattle feeding enterprise. Cattle are not kept too long – increasing cost and impacting some qualities – and cattle are not marketed too soon – consumers prefer longer fed animals but not overfed. Packers also have an incentive for the correct quality of animals, but the packer will work with the animals that are available in the market. Packers do ***not*** have an incentive to ***not*** participate. Packers have the incentive to make a market – as do feeding enterprises – if prices observed do not represent the market conditions. Packers have stated to me over the years that they will purchase animals anyway cattlemen choose to sell them. The seller is in the driver's seat and largely makes the market-choice decision. And the cattle industry has the incentive to sell at as high a price as possible. If cash trade were deficient then it is the cattle industry that has the impetus to engage.

Further, the more complicated or subtle the combination of attributes the buyer is looking for, the more production decisions further back up the supply chain impact availability, then the more a contractual arrangement is needed to create investment, guarantee supply, and grow demand. AMAs have allowed producers through the cattle and beef supply chain to make changes and get compensated. AMAs have allowed purveyors to create new products and programs. AMAs are the source of innovation in the cattle and beef industry in the past 10-15 years. These innovations guarantee supplies and allow producers to participate. The coordination is done through a relative price – a price relative to the market price for cattle. I offer a "natural beef" example as an illustration. Some consumers have communicated a strong demand for beef labeled natural. Natural beef costs more to produce – some advanced production technologies are precluded – and the market size is not as large as that for all beef – as this beef is more expensive and is of interest to a subset of all beef consumers. Natural product lines are often coordinated through AMAs. Producers agree to participate and commit animals to the program before the calves are born. Production practices that allow for natural labeling are followed for the animal's life which spans nearly two years. Packers commit product volumes to interested buyers with negotiated premiums. This model could not be developed or maintained in the cash market. Supplies of natural animals may easily be out of balance with demands. Natural animals may be valued well above costs of production or may not cover costs of production. That uncertainty will cause the system to fail. We see new product lines and other innovations because of AMAs.

The choice of market used, be it cash or formula or forward contract, is a choice made that benefits the underlying business – also recognizing the market level impacts. I have yet to meet an individual with marketing responsibilities that does not recognize their actions can impact the overall marketplace.

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[2] Detailed in Koontz, S.R., and J.D. Lawrence. "Impacts of Alternative Marketing Agreement Cattle Procurement Volumes on Packer Costs: Evidence from Plant Level Profit & Loss Data." *Agribusiness: An International Journal* 26(Winter 2010): 1-24.

Therefore, any policy which mandates more negotiated cash trade will require less AMA use and will impart a cost on the cattle and beef system and cattle and beef supply chain. Costs placed on packers and feeders will result in higher costs and lower quality offerings to consumers and will also result in lower prices to producers supplying calves to the system. The impact on producers is far larger than the impact on consumers. Consumers substitute to other proteins. This is a minor reduction is consumer wellbeing. Producers will market fewer animals at lower prices. This is a substantial reduction in producer – cow/calf producer – wellbeing. This is a definitive research conclusion.

The costs of a mandate associated with the 50/14 policy proposal are at least in the hundreds of millions of dollars for the cattle and beef system and are more likely over a billion. The proposed legislation (S. 4030) offers the 50/14 policy as an option at the discretion of the Secretary of Agriculture. These cost estimates are the published scientific result from the USDA-RTI Study. This impact consumes 12-14% of the wealth created by the cow-calf industry and that was the result in 2005. The costs and lost wealth are likely far higher today in 2022. There is no situation where mandating cash trade is not a cost. If cash trade created value or was not inefficient then there would be an incentive to do it. And this cost is incurred annually for as long as the policy is in existence. Nonprice coordination is beneficial. Price coordination of the whole supply chain is proven to be costly. This is a well-known research result.

The proposed policies are focused on price discovery, and price discovery is an appropriate question when the cash market is thinning, but price determination is the relevant topic for concerns about market outcomes.

Will mandating cash trade improve fed cattle prices – impact price determination? And thereby result in improved feeder cattle and calf prices? There is no research which offers this as a conclusion. Research which examines fed cattle prices for market power finds that these prices are impacted primarily by supply and demand conditions, characteristics of the pen or transaction, and inventories of market ready cattle. Inventories of AMA cattle or formula volumes have very small impacts on cash prices once a more comprehensive assessment of the market is considered. Reducing or eliminating AMA volumes would have at most very small impacts increasing cash prices – less than $1-3 per head. These increases are many orders of magnitude smaller than the gains from AMA use. And this requires assuming that all market power is driven by AMA use – which is also unlikely.

And the lack of a meaningful impact is the practical conclusion, the cattle feeding industry which makes use of formulas would have a strong interest in more cash trade if it was understood that formula use negatively impacted cash prices or if more cash trade resulted in higher prices. It is straightforward to show that formula use, or AMA use, does not change the supply and demand balance in a marketplace and therefore is unlikely to impact price determination.[3] Further, I have tried to make use of statistical research methods to find any relationship between AMA volume and impacts on fed cattle price – the industry sometime refers to this as market leverage. I have been unsuccessful. Further, I communicate with other academics and industry participants that study fed cattle markets, trade the markets, and offer market analysis. AMA volume is just not something that is used to understand cattle and beef market dynamics and price behavior.

[3] For details see the write up PD-2022-01 Alternative Marketing Agreement Use and the Supply/Demand Balance in the Fed Cattle Market at the LMIC website.

The only potential benefit to mandating some minimum cash trade volume is to guarantee some level of price discovery. Discovering fed cattle prices in a cash market environment requires at least the trade of some cash fed cattle. One of the shortcomings of existing research is that it has not as addressed questions regarding price discovery. But there were no concerns expressed until in 2014-15 – and again in 2018-19 – about price discovery in fed cattle markets. (I coined the term "robust price discovery" and it is a vague description. It will elicit discussion, which was its purpose, but the meaning only speaks to the individual. There is no scientifically accepted definition of robust price discovery.) AMA use was not as common or substantial as it has been since the major studies. But the changes in AMA use over time should not be a surprise. The thorough adoption of AMAs and especially in some regions give rise to the next economic question. How thin is too thin? The largest portion of AMAs – formula transactions – have prices based on what has become the residual negotiated cash trade.

This is an area of research which I have devoted the past several years and there is no published research that I am aware of that links the amount of objectively measured price discovery to the volume of negotiated cash trade. My work in this area is not published and is only informally reviewed by some of my peers. Answering the question of, "How thin is too thin?" requires objective measures of price discovery. There are three measures that are used in the research literature. When the five USDA AMS reporting regions are examined using these tools there are a variety of conclusions. For example, the different measures offer different conclusions in different time periods. The price discovery process is very fluid and very easy to change. The main conclusion is that there is no relationship between price discovery and the volume of negotiated cash trade. There is no clear overall problem that price discovery is somehow deficient in regional fed cattle markets. Mandating cash trade does not address a price discovery problem that is observed today or since the beginning of Livestock Mandatory Reporting.

Price discovery is effective with large cash volumes and small cash volumes. Price discovery is not performed in any single USDA AMS regional market. Price discovery is at times performed mainly in the upper Midwest and at times mainly in the Southern Plains. The CME live cattle futures at times are very important and the downstream boxed beef value is at time also important. None of the price discovery results are clearly related to the volume of negotiated cash trade.

Thus, mandating cash trade has high costs and no benefit – there will be no benefit to price levels seen by producers nor to the price discovery process.

It is also important to recognize what price discovery is not – price discovery is not higher prices. Price discovery is the market moving quickly and clearly to the appropriate price level. At times this is a lower fed cattle price and other times a higher price. It is a common misconception that better price discovery implies better prices for the individual contemplating the issue. And there is no scientific evidence that improved price discovery has value not already revealed in price nor will improve prices to producers.

So how can packer margins have changed so much without there being a problem with price discovery or price determination? The reason is the lack of coordination between packing capacity and cattle industry size decisions. There is no coordination and decisions in both industries are made by many-many individual businesses. For almost my entire career there has been substantial excess packing capacity. There has been far more packing capacity than beef animals to process. This was the case when I started my career path in the 1986 until 2016. For 30 years the essential question to understand changes in the packing industry was to understand what firm was going to have the most financial difficulty and what plant or plants would most likely close. This changed only in 2017. Since 2017, there

have been more animals available for slaughter than packing capacity. In today's market and since 2017, the marketplace needs packing facilities to operate six days per week. Prior to 2016, there was little incentive to invest in building packing infrastructure. The newest facilities built prior to 2016 have had multiple owner changes. Thus, the margin is needed to recover capital losses, fund renovation and innovation, and encourage expansion. The margin is market determined. If you are offended by the magnitude, then I ask did you see this coming in 2016? Few, and I know of none, that did.

I would like to conclude by offering a summary. Mandating minimum cash trade is substantially costly. Costs are at least hundreds of millions of dollars and more likely billions of dollars. These costs will be leveled on cow-calf producers nationwide and consumers of beef both domestically and internationally. Primary research which discovered these costs is almost 20 years old – but the economic concepts are foundational and the costs today are likely substantially higher. There is no research which can attribute higher cattle prices to mandated cash trade. Likewise, my preliminary work has revealed to me that price discovery is not improved with mandated cash trade. The price discovery we currently have in regional fed cattle markets is not deficient. And the cost-benefit of mandated cash trade is clear.

In June 2021, USDA Office of the Chief Economist and the Agricultural and Food Policy Center (AFPC) at Texas A&M University jointly sponsored a workshop in Kansas City, Missouri at which a series of papers summarizing work on fed cattle pricing issues were presented and discussed. These papers, along with a summary of the workshop, were compiled into a book published by AFPC and available on their website at https://www.afpc.tamu.edu/research/publications/710/cattle.pdf. This work is a unique summary of prior and new research. It offers an assessment of issues, concerns, research results, and some policy options. The work is also available at https://www.lmic.info/page/cattle-markets-price-discovery-and-emerging-issues. Along with the workshop book, some of the authors have written extension audience documents summarizing some of the topics. My statements in this testimony are consistent with the conclusions from that effort by 18 other agricultural economists.

Statements made by supporters of the legislation conclude that the policy will result in substantial gains. And yet I am aware of no research which concludes this. If the system is so broken, if the meatpacking industry is so taking advantage of producers, then why isn't there substantial much less no evidence that this is the case? Wouldn't there have been evidence as to that case presented in the OCE-AFPC joint workshop? Key findings from the book are listed on page *x-xi* and it is not a key finding that a minimum cash trade should be mandated. Wouldn't it be a conclusion from research? Wouldn't it be largely recognized across the population of market analysts and other followers of the cattle and beef markets? The reason is because the premise is not true.

However, any passage of the legislation will provide the opportunity for a unique experiment. Prior research assessing the costs and benefits had to be constructed from what we know about cattle and beef market economics – supply and demand, costs, incentives, and market dynamics. The actual passage of legislation and the resulting real-world adjustments in the marketplace will be measurable. We, the research community, will be able to assess whether the costs and benefits are as one-sided as our *a priori* research concludes.

I offer this assessment as a scientist with only an interest in communicating what we know from research. I have no vested interests that will benefit or deteriorate in the outcome of this committee's decision. If I can be of any further service, then I view that as an obligation.

DOCUMENTS SUBMITTED FOR THE RECORD

APRIL 26, 2022

FIVE RIVERS
CATTLE FEEDING

April 20, 2022

The Honorable Jerry Moran
521 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Moran:

I write today to share Five Rivers Cattle Feeding's opposition to S. 4030, the Cattle Market Price Discovery and Transparency Act.

Five Rivers Cattle Feeding is the world's largest cattle feeding company with 11 feedyards in Colorado, Kansas, Oklahoma, Texas, Arizona and Idaho. We have a one-time feeding capacity of more than 865,000 head of cattle, market more than 1.2 million head of cattle per year and employ more than 650 people. 51% of our staff are minorities and 16% are women. Five Rivers provides high quality cattle on a timely basis to processing facilities and other customers. Through our research programs, we actively improve our cattle feeding nutrition programs, production practices and operations to develop cattle that meet the needs of a wide range of specialty markets and customers. We take pride in our safe, environmentally sustainable feedyard operations.

In Kansas, Five Rivers owns one feedyard located in Grant County near the town of Ulysses with a one-time cattle capacity of 98,0000 head. Five Rivers employs 70 Kansans with gross wages of $3.5 million in 2021.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Five Rivers Cattle Feeding, the freedom to market our cattle in the manner that best suits our business, without government interference, is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe. The industry has established a value-based marketing system and this legislation will negate much of the progress that has been made by jeopardizing many of the confidential business-to-business contracts that have been established.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors.

Five Rivers Cattle Feeding LLC 4848 Thompson Parkway, Ste410 Johnstown, CO 80534 970-408-0148



As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Five Rivers Cattle Feeding understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Establishing regional mandatory cash trade minimums could result in unintended consequences for our Grant County Feeders located in Ulysses, Kansas, jeopardizing our business model, and hurting our employees and their families. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work, wasting taxpayer dollars. Furthermore, the bill will also provide market information which will be utilized by the beef processing and retail sectors of the industry to potentially gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library.

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[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).



A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure no harm comes to individual producers or the industry.

Providing confidential, business-to-business information to the most sophisticated segment of the cattle industry likely shifts additional market leverage to the segment of the beef supply chain that holds all the market leverage today: the beef processing and retail sectors.

Consumer demand for beef today is strong, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety, and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential AMAs. These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to the highest levels of beef demand in the past 30 years.

Restricting free market principles and limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products. Finally, Congress should not be in the business of overreaching and injecting artificial market signals, either through regional mandatory cash minimums or publishing information in a cattle contract library, that provides, in perpetuity, more leverage to one segment of the industry at the expense of all others and the end consumer.

We were the firm that brainstormed, co-developed and helped launched the Fed Cattle Exchange platform- an electronic platform which allows buyers and sellers to observe market dynamics in a real time in a fully transparent setting. We have and continue to enroll multiple sets of cattle from multiple yards on a weekly basis since the platform's inception. Through this activity we have led and encouraged our peers to participate in this process as well. Once the process was well established, it was sold it to an independent firm to further establish its credibility and independence.

Legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers.

Five Rivers Cattle Feeding LLC 4848 Thompson Parkway, Ste410 Johnstown, CO 80534 970-408-0148

FIVE RIVERS
CATTLE FEEDING

Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

Five Rivers Cattle Feeding appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,

Mike Thoren
President and CEO, Five Rivers Cattle Feeding
mike.thoren@5rcattle.com 970-408-0171

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

DEPARTMENT OF AGRICULTURE
Assistant Secretary
Congressional Relations
Washington, D.C. 20250-0100

April 22, 2022

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition, and Forestry
U.S. Senate
328A Russell Senate Office Building
Washington, D.C. 20510

Dear Ranking Member John Boozman:

Thank you for your letter to Chief Economist Seth Meyers requesting testimony for the forthcoming hearing on the Cattle Price Discovery and Transparency Act of 2022 (S. 4030) and the Meat and Poultry Special Investigator Act of 2022 (S. 3870).

The United States Department of Agriculture (USDA) serves in an advisory capacity to Congress, providing testimony and technical assistance on legislative proposals under consideration.
As you are likely aware, the Senate Committee on Agriculture, Nutrition, and Forestry formally requested USDA witnesses and the Department has agreed to provide testimony on the proposed legislation from the USDA Senior Advisor for Competition, Andy Green, who will be supported by Agricultural Marketing Service (AMS) Administrator Bruce Summers. They look forward to providing USDA's perspective on April 26th.

Additionally, the Department has provided significant technical assistance on S. 4030 and will continue to do so. The Chief Economist is happy to brief your staff on the provisions included in this legislation. If your staff is interested, please have them contact me at adrienne.wojciechowski@usda.gov.

Sincerely,

Adrienne Wojciechowski
Assistant Secretary of Agriculture for Congressional Relations

BEEF NORTHWEST FEEDERS est. 1991

April 20, 2022

The Honorable Senator Ron Wyden
221 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Wyden:

As a family owned business and one of the largest cattle operation in Oregon, we are very concerned about S.4030 and oppose the legislation. Several months ago, we met with your staff member, Kathleen Cathey, and explained the negative impact this type of legislation will have on the livestock industry. If approved, this legislation will impose unnecessary regulations that attempt to reconcile short term market imbalances with long term regulations that will have many unintended consequences for the industry.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Beef Northwest, the freedom to market our cattle in the manner that best suits our business needs is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors. As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of

[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).

cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Beef Northwest understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Currently, under the Department of Agriculture's (USDA) Agricultural Marketing Service (AMS) Livestock Mandatory Reporting (LMR), there are five reporting regions; Oregon and Washington are not included within these reporting regions. The interaction between LMR and S. 4030 could result in unintended consequences for our Oregon and Washington operations jeopardizing our business model and hurting our employees and their families. Establishing regional mandatory cash trade minimums is not the answer. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work. while also providing market information which will be utilized by the beef processing and retail sectors of the industry to gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library. A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure that there are no unintended consequences. Beef Northwest strongly opposes the publication of any part of confidential business transactions for public consumption.

Consumer demand for beef today is the highest on record in the last 30 years, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential alternative marketing arrangements (AMAs). These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to strong consumer demand for beef through the 2000s.

Beef Northwest is one of the major buyers of feeder cattle in the PNW and we have developed many long-term relationships with ranchers throughout the region. Through these relationships we have worked to continuously improve the quality of the cattle we purchase based on the market signals we receive from the market place. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

This legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers.

Beef Northwest appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,

Julian Garcia, CEO
Beef Northwest Feedersw
North Powder, OR
541-898-2288 Office
julian.garcia@beefnw.com

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

WILSON CATTLE COMPANY 1884

April 20, 2022

The Honorable Senator Ron Wyden
221 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Wyden:

As a family owned business and one of the largest cattle operation in Oregon, we are very concerned about S.4030 and oppose the legislation. Several months ago, we met with your staff member, Kathleen Cathey, and explained the negative impact this type of legislation will have on the livestock industry. If approved, this legislation will impose unnecessary regulations that attempt to reconcile short term market imbalances with long term regulations that will have many unintended consequences for the industry.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Beef Northwest, the freedom to market our cattle in the manner that best suits our business needs is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors. As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of

[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-

cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Beef Northwest understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Currently, under the Department of Agriculture's (USDA) Agricultural Marketing Service (AMS) Livestock Mandatory Reporting (LMR), there are five reporting regions; Oregon and Washington are not included within these reporting regions. The interaction between LMR and S. 4030 could result in unintended consequences for our Oregon and Washington operations jeopardizing our business model and hurting our employees and their families. Establishing regional mandatory cash trade minimums is not the answer. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

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Consumer demand for beef today is the highest on record in the last 30 years, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential alternative marketing arrangements (AMAs). These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to strong consumer demand for beef through the 2000s.

Beef Northwest is one of the major buyers of feeder cattle in the PNW and we have developed many long-term relationships with ranchers throughout the region. Through these relationships we have worked to continuously improve the quality of the cattle we purchase based on the market signals we receive from the market place. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef

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inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).

industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

This legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers.

Beef Northwest appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,

Zach Wilson, President
Wilson Cattle Company
North Powder, OR
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zach@beefnw.com

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

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April 18, 2022

The Honorable Debbie Stabenow
Chairwoman
U.S. Senate Committee on Agriculture,
Nutrition, and Forestry

The Honorable John Boozman
Ranking Member
U.S. Senate Committee on Agriculture,
Nutrition, and Forestry

TRANSMITTED ELECTRONICALLY

Dear Chairwoman Stabenow, Ranking Member Boozman, and Members of the Committee:

For good reason, R-CALF USA is deeply concerned that Section 7 (Market Acquisition of Fed Cattle), including new Section 259 (Mandatory Minimums), (collectively, Sec. 7 *et seq.*) included in the *Cattle Price Discovery and Transparency Act of 2022* (S.4030) represents an ineffectual reform to the abject market failure plaguing the U.S. fed cattle market since 2015. For reasons stated below, R-CALF USA strongly urges the committee to reject Sec. 7 *et seq.* (The basis for R-CALF USA's standing is found farther below.)

On a continuum between maintaining the status quo and achieving reform, Sec. 7 *et seq.* decisively favors the status quo. The only market-impacting directives from Congress are that the U.S. Department of Agriculture (USDA) may not change the five in-region proportions of negotiated transactions below their 2020-2021 averages and may not increase any region's negotiated quota above 50%. But even the unacceptably low negotiated floor is likely inapplicable as Congress further directs the USDA to establish as many as seven new regions, without effectively preserving the preexisting regions to which the 2020-2021 average proportions exclusively apply.

In effect, Sec. 7 *et seq.* constitutes the granting to the USDA carte blanche as to whether any change in the current mix of negotiated versus non-negotiated transactions will ever occur in the fed cattle market, and the USDA will have up to two years to make its initial decision.

Very recently, two economic studies have emerged that should substantially alter Congress' thinking and goals. Chief among the goals of Sec. 7 *et seq.* is to determine the levels of negotiated transactions necessary to achieve robust price discovery in each of the up to seven regions without disrupting, to the extent practicable, contemporary fed cattle purchase practices, which include pre-existing contractual arrangements (*i.e.*, alternative marketing arrangements (AMAs) such as formula contracts) of the packers. But one of the new studies suggest the pre-existing AMAs of the packers are themselves the likely culprit undermining fed cattle prices (hence, true price discovery) when, as here, those contractual arrangements are combined with an oligopolistic packing industry.[1] The other study suggests it is the packers' internal coordination of their multiple plants in combination with

[1] *See* Buyer Power in the Beef Packing Industry: An Update on Research in Progress, Francisco Garrido, Nathan Miller et al., April 13, 2022 (hereafter, "the Miller study"), available at http://www.nathanhmiller.org/cattlemarkets.pdf.

other factors, including AMAs, that explain persistently wide spreads between beef prices and fed cattle prices at the aggregate level.[2]

Given these findings, a prudent course of action would be for Congress to reject Sec. 7 *et seq*. and, instead, hold a hearing to learn first-hand the ramifications of AMAs and packer concentration on the cattle market even when negotiated transactions are deemed sufficient for price discovery purposes under earlier economic theories. Further, Congress should explore the ramifications of multi-plant coordination to determine whether the adverse effects of such coordination are exacerbated when a packing firm coordinates its procurement and slaughter activities among its multiple plants in multiple regions, each with differing negotiated transaction requirements.

But there are more reasons to reject Sec. 7 *et seq*. First, it codifies both a 50% maximum requirement for negotiated transactions and the unfounded and controversial notion that the fed cattle market's ills can be rectified using arbitrary regions that are not themselves economically independent geographic areas.[3] Consequently, the enactment of Sec. 7 *et seq.* will stifle implementation of President Biden's July 9, 2021 executive order. That order urges the USDA to write rules to identify recurrent practices that violate the Packers and Stockyards Act of 1921 (PSA).

However, pursuant to that order, a packer's practice of purchasing out-of-region cattle to suppress in-region prices intrinsically tied to the base price of the packers' own AMA contracts could be deemed an unfair practice under the PSA that would call for a national solution. But such a solution and/or its enforcement could prove untenable should Congress sanction a regional approach with differing procurement requirements while the packing firms themselves operate nationally.

Additionally, if emerging studies determine that packer buyer power is accentuated when captive supplies, such as AMAs, account for more than 50% of packer procurement, Sec. 7 *et seq*. would preempt USDA's ability to require non-captive procurements to exceed 50%. This is no small concern given the finding in the Miller study that a one percent increase in the fraction of cattle purchased under AMAs is associated with a 5.9% reduction in the cash market price.[4]

Sec. 7 *et seq*., therefore, does not compliment the USDA's preexisting authorities to promulgate rules under the PSA to protect cattle producers from unfair, deceptive, unjustly discriminatory, or preferential practices. Instead, it encumbers the agency by limiting its regulatory options to that of recognizing cattle procurement regions heretofore established exclusively for price reporting purposes, and by limiting its ability to restore whatever appropriate mix between negotiated transactions and formula transactions is needed to ensure packers do not maintain an unfair pricing advantage over cattle sellers.

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[2] *See* Multi-plant Coordination in the US Beef Packing Industry, Christopher Pudenz and Lee L. Schulz, Center for Agricultural and Rural Development, Iowa State University (hereafter, "ISU Study"), available at https://www.card.iastate.edu/products/publications/synopsis/?p=1343#:~:text=Abstract%20U.S.%20beef%20packers%20openly%20began%20employing%20multi-plant,downstream%20beef%20prices%20and%20upstream%20fed%20cattle%20prices.

[3] *See* Miller study, at 8.

[4] *See Id*., at 13.

Second, while Sec. 7 *et seq*. suggests that the USDA examine academic literature to, *inter alia*, eliminate the potential for price manipulation, the agency's Office of the Chief Economist completed just such a review as recently as last year and found, "Indeed, a large body of empirical work by agricultural economists has investigated the question over the past decades and has tended to find that meatpacking plants do not exercise market power to harm livestock suppliers or consumers."[5] The agency's ultimate conclusion that "[t]he resulting reduction in demand for livestock and supply of beef and pork [a function of reduced packing capacity] caused lower livestock prices and higher meat prices in the spring and summer of 2020," despite the manifest lower livestock prices and higher beef prices since 2015, is ominously void of long-recognized findings in other academic literature that a negative correlation exists between AMA purchases and cash market prices,[6] and that AMAs can distort pricing incentives."[7] As exemplified here, the USDA's ongoing defense of the packers' procurement practices, despite evidence to the contrary as to their effects, favors minimal, if any, movement beyond the status quo under Sec. 7 *et seq*.

Particularly noteworthy is the finding in the Miller study that the effect of AMAs interact with oligopsony power, and modeling shows that the current mix of negotiated transactions versus AMAs may result in a 100% increase in packer markdowns that would otherwise be expected to arise without the AMAs.[8] This finding has significant implications regarding the packers' current exercise of buyer power in the fed cattle market that has heretofore been ignored.

Congress should take note that from 2015-2019, the regions consisting of TX/OK/NM and Kansas – the regions with the lowest proportion of negotiated cash sales (7.4% and 12.5%, respectively[9]), sold fed cattle for the lowest average prices within the 5-area procurement region.[10] Conversely, the highest average cattle prices within the 5-area region were sold in the IA/MN/MO, and Nebraska regions,[11] which also had the highest proportion of cash sales (47.5% and 31.1%, respectively).[12] Indeed, the average difference in prices between the two low and two high regions was $100 per head during this five-year period. This argues against any extension of the status quo.

Third, because Sec. 7 *et seq*. allows packers between 7-30 days with which to comply with the mandatory minimum purchase requirements, it is possible that packers could shun the negotiated market for 1 or more weeks, thus depriving cash sellers timely market access.

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[5] The Impact of Coronavirus COVID-19 on U.S. Meat and Livestock Markets, USDA Office of the Chief Economist, J Joseph Balagtas and Joseph Cooper, March 2021, at 10, available at https://www.usda.gov/sites/default/files/documents/covid-impact-livestock-markets.pdf.
[6] *See* Miller study, at 13.
[7] *See Id*., at 12.
[8] *See Id*., at 18-19 (A markdown (downstream price minus price paid for cattle minus marginal cost of packing), is a potentially new measure for evaluating buyer power or oligopsony power in the packing industry).
[9] *See* National Weekly Cattle And Beef Summary, USDA Livestock, Poultry & Grain Market News, Jan. 17, 2022, (data based for calendar year 2021), available at https://usda.library.cornell.edu/concern/publications/qr46r082r?locale=en.
[10] *See* Miller study, at 8.
[11] *See Ibid.*
[12] *See* National Weekly Cattle And Beef Summary, USDA Livestock, Poultry & Grain Market News, Jan. 17, 2022, (data based for calendar year 2021), available at https://usda.library.cornell.edu/concern/publications/qr46r082r?locale=en.

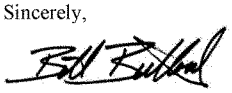
Given the substantial harm America's cattle producers have suffered under the chronically dysfunctional cattle market since at least 2015, Congress should take swift and decisive action, but not the ill-informed and minimalist action embodied in Sec. 7 *et seq.* Instead, Congress should amend the *Cattle Price Discovery and Transparency Act of 2022* (S.4030) by deleting entirely Sec. 7 *et seq.* and inserting in its place the entire contents of S.949, the spot market protection bill. Unlike Sec. 7 *et seq.*, S.949 would immediately lessen the adverse effects of AMAs found in the Miller study by reducing AMA volume to no more than 50% nationwide. It also would alleviate the potential problems associated with reliance on non-economically independent geographic areas subject to multi-plant coordination by packers with plants located in one or more regions. And, importantly, S.949 could be implemented immediately following enactment and would then immediately cause packers to begin once again to compete against each other for available fed cattle supplies. While acknowledging that S.949 would only reduce the negative price impact of AMAs by 50%, not eliminate it, R-CALF USA suggests this as a preferred starting point. Next logical steps would include severing the link between the remaining AMAs and prices realized in the cash market, which are presently subject to packer control, and ending packer-ownership and -control of cattle.

R-CALF USA has standing to make this important request as its about 5,000 independent cattle-producing members in 43 states makes it the largest U.S. cattle trade association whose membership is exclusively voluntary and whose voting members consist exclusively of live cattle producers within the multi-segmented beef supply chain. R-CALF USA's members comprise the entire live cattle supply chain – from seedstock producers to cow/calf producers, to backgrounders and stockers, and to cattle feedlots, both farmer/feeders and large commercial feedlots.

R-CALF USA's members have been substantially harmed by the disconnect between live cattle prices and wholesale and retail beef prices that has persisted since 2015. That disconnect results in our members' inability to achieve timely market access and recovery of production costs plus a profit from the market. Anecdotal information suggests large numbers of independent cattle producers have been and continue to be forced to exit the industry. Data from the USDA indicates another 1,000 feedlots exited the industry between 2020 and 2021, representing about 4% of all remaining feedlots. If independent beef cattle operations exited the industry at the same 4% rate during that period, then another 30,000 beef cattle operations would have been forced from the U.S. cattle industry in one year.[13]

Finally, Congress should be cognizant of the dire conditions faced by independent U.S. cattle producers this year. The prolonged and chronically dysfunctional cattle market combined with persistent and widespread drought, and further worsened by record feed prices, will likely spell absolute disaster for the United States cattle industry as we know it today.

Sincerely,



Bill Bullard, CEO
406-670-8157

[13] The USDA no longer publishes annual data regarding number of beef cattle operations remaining in the United States, so this estimate is conjecture pending the completion of the next 5-year Census of Agriculture.

F Cross Cattle Company, LLC

April 13, 2022

Senator Debbie Stabenow
Chairwoman
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
Washington, DC 20510

Senator John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
Washington, DC 20510

Re: SB 4030

Dear Senators Stabenow and Boozman:

I am a 4th generation beef cattle producer from Colorado concerned about the potential loss of my market options resulting from Senate Bill 4030. The result of this proposed legislation would reduce flexibility in marketing my cattle and our product would become less responsive to consumer demands.

Senator Fischer and Grassley's proposal to divide the country into geographic regions with disparate marketing mandates does not meet the reality of a national industry. I own cattle born in South Dakota, raised in Colorado, processed in Kansas, for ultimate consumption by a consumer in California. Location of links in the beef supply chain should be determined by resource availability and market need, not at the discretion of a politically appointed administrator with no vested interest. Further, the bill directs USDA to "examine academic literature regarding minimum levels of negotiated transactions necessary to achieve robust price discovery." There is no agreement on minimum cash trade, and in fact multiple researchers and market analysts have testified in committee that the volume of negotiated transactions has no material impact on the historical price received by producers.

An inconvenient fact regarding mandatory levels of negotiated purchases necessarily means producers will also be required to sell on a cash basis. Presently, a large majority of cattle ranchers choose to market their production via an Alternative Marketing Arrangement (AMA)

frasier@kci.net 60 Reid Road Fort Morgan, CO 80701 970 867 4877

because they recognize value in being rewarded and paid for the quality they produce. Under the proposed legislation if packers are required to purchase up to 50% of their needs on the cash market, then 50% of producers will be mandated to sell production on the average and unable to capture market premiums created by superior quality. At the root of this issue is a desire for greater options to market fed cattle and it seems ironic the result would be less flexibility for producers in total. Legislation that pairs the term "mandatory purchase" with "price discovery" is simply at odds with itself.

The beef industry enjoys strong domestic consumer demand and growing export sales because producers have worked diligently to develop and raise a high-quality protein that efficiently meets the needs and desires of the modern diet. Our complex market structure has evolved to include economic incentives to produce what consumers want while putting more dollars into ranchers' pockets. Animal genetics and advanced production practices have made tremendous gains in response to market incentives that reward doing the right thing and doing it well.

An actively traded cash market is vital to the US beef cattle industry and is in fact the foundation on which AMA's are built. The producing and processing segments of our business are diligently working hand in hand to preserve market integrity and cash signals that accurately reflect the functions of supply and demand. Any attempt to create artificial limits or requirements to market structure will ultimately disrupt the signals we need to remain responsive to consumer interests. SB 4030 reflects an emotionally impulsive influence of populism, devoid of factual basis, arbitrarily applied, and is destructive to the interests of consumers and producers alike.

I urge the Committee to reject this misguided effort to skew an active market and impair our national beef supply chain.

Respectfully,

Mark Frasier
F Cross Cattle Company

cc: Senator Michael Bennet
Senator John Hickenlooper

frasier@kci.net 60 Reid Road Fort Morgan, CO 80701 970 867 4877



DOWNEY RANCH, Inc.

April 20, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

RE: Senate Bill 4030

Dear Chairwoman Stabenow & Ranking Member Boozman,

I am strongly opposed to Senate Bill 4030, also known as the Grassley-Fischer Mandate. I represent the 4th generation of my family to make a living on a ranch. Our daughters hope to come home in the next 5-10 years and be the 5th and beyond. For family operations like mine to thrive now & into the future, we must have the ability to control our own destinies. If S. 4030 were to go into effect, it would be difficult if not impossible for me to be paid what my cattle are worth. When that happens to folks like me, you'll see consolidation into larger operations capable of making a living on extremely narrow margins; the "big box store" model vs. a "Mom & Pop" model. I refuse to believe that is what the Senators that represent us have in mind and why SB 4030 must NOT go into effect.

Back in the late 1980s and early 90s, I was part of a group of cattlemen/women who were frustrated with the fact that most cattle sold live; before you knew if that animal was a high-quality, USDA Prime steer, or a low-quality USDA Select. When cattle sold predominantly live, ALL of them brought within $1-$2/lb, regardless of their true value. Our ranch had developed a vision of where we needed to go to remain sustainable, and that meant we were going to raise the best of the best. What was missing was a way to get paid for it. Thus the formation of US Premium Beef, LLC, of which my family are founding stockholders. USPB epitomizes what Americans do best; innovate, solve problems, and make a living doing it. The results of that innovation are easily seen in the evolution of the US beef supply. US producers are now paid more for high quality cattle and because of that, we raise more USDA Prime & Choice beef than ever before. Demand for this premium US beef is up both domestically & abroad. Because US families produce the best, US beef is the standard by which all others are measured and most are found wanting. I have worked hard & done my part since 1986 to make US beef THE preferred choice the world over.

I strongly urge the Senate Ag Committee members to kill this ill-advised bill. Let me continue to do what I do best: innovate & solve problems with like-minded producers that live this everyday. Please do not fall prey to those voices that think government regulation of an intricate & necessarily complex system is the answer. History has shown again and again that a one size fits all approach doesn't work. We as US producers continue to evolve and move forward. Innovative operators are differentiating themselves right now with new, small & large format plans. Let us continue. Please do not place restrictions on the way we see fit to run our businesses. If you do, it won't be the bigger guy that gets hit. Instead, it will be the family operations like mine, without the scale & power, who will be the ones affected. You will make us "average." You will force us to produce average cattle, because we will become margin operators instead of craftsmen. This giant step backwards is bad for everyone: my family, my neighbors, the US beef supply, and the consumer. PLEASE vote no on S. 4030.

Respectfully,

Barbara A. Downey

37929 Wabaunsee Rd. Wamego, KS 66547 (785)456-8160, 8186 fax
www.downeyranch.com



Royalcrest LLC

April 19, 2022

The Honorable Debbie Stabenow, Chairwoman
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

RE: Senate Bill 4030

Dear Senators Stabenow and Boozman,

I am a young cattle feeder in Central Iowa, where my family has operated a small feedlot for three generations. The proposed Senate Bill 4030 threatens the profitability and viability of my operation for future generations.

When National Beef Packing Company purchased the Iowa Premium beef plant in Tama, Iowa in Spring of 2019, it changed our small business for the better. Since then, we have participated both the traditional cash markets as well as a value-based grid with US Premium Beef, a producer owned cattle marketing cooperative. This arrangement has added substantial value to our cattle. We seek out high quality feeder cattle from ranches across the US and pay these ranchers a premium for their cattle. We feed home grown corn and forages to these cattle that in turn produce high quality beef products. Our cattle are above the industry averages on quality, and thus command premiums when we sell. Our strategy is driven by the demand for high quality beef which has ballooned in recent years as evidenced by the large spread between payments for the prime and select quality grades.

Proposed Senate Bill 4030 will place unnecessary and intrusive requirements on packer cattle purchases which will in turn place a overreaching mandate on my business strategy. I am concerned that I will not be able to market my cattle the way I deem most appropriate. For example, if a packer has reached the maximum grid purchases, I will have to sell my premium cattle into the cash market for commodity cattle prices. I will not receive any premium for adding quality beef to the supply chain and my operation will have tighter margins and possibly loses.

1502 W Ave, Grand Junction, IA 50107 info@royalcrestllc.com 515.370.4356

Robust cash markets are the foundation of grid marketing. The grids that I participate on are derived from average cash markets in different regions. Mandating cash negotiations will flatten the curve between high quality and commodity cattle, and push smaller family operations focused on quality, like my own, out of the cattle business in favor of larger feedlots that can sell on volume This bill could stop the progress that US cattlemen have been achieving for decades.

From my perspective, the problem with the current system is not the lack of cash negotiated cattle but rather the type and kind of cattle that are reported. Currently, many commodity cattle are pricing the grids that high quality cattle participate in. The reporting needs to be reformed to reflect the current market conditions. Also, the Agricultural Marketing Service needs to monitor that cattle are being reported in the correct quality slots on the report. Small errors in reporting have cascading effects on prices for the collective.

I do believe that other provisions in the bill will be beneficial to the cattle industry. Faster and more accurate reporting on carcass weights, kill head counts, and box beef pricing will help the information flow in the market. Currently, there is significant delay on many of these reports, and I believe beef processing and government entities can invest in faster turn times for this data.

In conclusion, I agree with American Farm Bureau, National Cattlemen's Beef Association and many other industry trade groups opposition to mandatory cash negotiation. I hope you take this letter in consideration when discussing this important matter.

Sincerely,

James Holz
Grand Junction, Iowa

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Ashland Veterinary Center Inc.

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April 22, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328A Russell Senate Office Building
Washington, DC 20510

RE: Senate Bill 4030

Dear Senator Stabenow and Ranking Member Boozman
and members of the Senate Committee on Agriculture, Nutrition & Forestry:

I am writing to oppose Senate Bill 4030, which is a regurgitation of your failed attempts through SB 3229 and SB 593 in 2021. The current iteration is equally as flawed. The spirit of these bills, from 3229 to 593 and now 4030 is, at best, detrimental to our current robust value-based marketing system. At its worst, the current bill has the potential to turn the quality clock back three decades.

I am a senior veterinarian and small business owner in Southwestern Kansas. Our clinic is a five-veterinarian practice serving 13 Kansas counties, five in Oklahoma and several counties in Texas. I am a livestock producer and charter member of U.S. Premium Beef (USPB). Our business has evolved and changed over the last 30 years. However, one factor that has enabled Southwestern Kansas to be sustainable and prosper is the reality that our producer/clients have invested in a marketing system that provides opportunity for them to be more profitable by earning premiums for higher quality beef production.

Value-based marketing has proven, over decades, to be a win-win for the entire beef supply chain, including the consumer. Producers flourish because of their investment in a system that creates incentives to produce higher quality beef. They understand that high quality beef production is a lifetime process that begins with their genetic, nutrition and herd health management decisions. Because of their discipline and financial commitment to quality production, they have access to a marketing system that systematically yields greater returns on their investments.

The evolution of Alternative Marketing Arrangements (AMA) is the result of nearly thirty years of producers seeking a pricing system to capture the complete value of their livestock. Progressive producers have used scientific tools to manage genetics, health, and nutrition on the ranch. Capturing value on investments in beef cattle is at harvest time when the animal produces a higher quality carcass with more value throughout the supply chain, including the meat case.

Most producers choosing to ignore sound science and opportunity are commodity stakeholders averse to competition. Commodity stakeholders have resisted change, refused to make improvements in their production systems and cow herds. Senate Bill 4030, same as its predecessor, appears to be driven by those invested in a commodity system that signals all beef, regardless of quality or retail value, is equal.

We all know the pitfalls of populism, especially when it is driven by a population largely disconnected from how safe, nutritious, and high-quality meat protein gets to their tables. Uninformed populism devolves to inequality as tangible value and competitive differences are disincentivized. Value-based marketing systems are the "rising tide that lifts all boats."

A study conducted in 2018 predicted the demand for USDA Select (i.e.: commodity beef) would be reduced to less than 25% of market share in just a few years. Market reports during the third quarter of 2020 documented the demand for USDA Select (commodity) beef fell to "14%, the lowest seven-month average on record and 3.5 percent

lower than the first seven months of 2019." Conversely, today more than 80% of beef cattle processed grade USDA Prime and Choice. The dramatic increase in beef quality is largely the result of a robust marketing system rewarding stakeholders for making investments in higher quality beef production. SB 4030 is an antithetical attempt to force the supply system to pay less, yet, expect the same higher quality, and ignores the consumer's signal consistently sent down the supply chain for decades. If SB 4030 is passed, the unintended consequences to our county in Kansas will be catastrophic. Today, livestock sales account for 85% of Clark County revenue. The five largest taxpayers in the county are large, family-owned beef producers. Commodity beef production does not enable us to remain economically solvent.

The Grassley-Fischer Mandate will ultimately limit how cattle producers sell their cattle. Under the Act, some cattle producers who currently manage their price risk through marketing agreements with packers will lose their agreements, not because they want to, but because the government requires it. Meanwhile, other producers – particularly those in other yet-to-be-defined regions – will be allowed to keep their agreements. Government intervention in the market would impose costs.

More daily cash negotiations require more time and financial resources for feeders and packers. Fewer AMAs mean fewer opportunities for producers and feeders to manage risk in periods of market volatility. At the 2022 American Farm Bureau Federation Annual Convention, Dr. Stephen R. Koontz, professor in the Department of Agricultural and Resource Economics at Colorado State University said, "Mandated cash trade is not going to get you better price discovery." Many of the most respected ag economists in the U.S. have evaluated the bill and conclude the bill will cost cattlemen money and will result in unintended consequences to a functioning livestock marketing system. Not a single expert has provided data asserting the Grassley-Fischer mandate will be profitable to producers.

None among us argue the importance of price discovery. In fact, value-based marketing over the past three decades has done more to improve transparency and price discovery that any government regulation. Many of our industry critics have no connection to the supply chain past their farm or ranch gate. They militantly discount the prosperity that value-based marketing has returned to progressive producers willing to invest. They deny the reality that our supply issues are largely cyclical. Their memories are short, and they forget that in 2015, the beef market was historically high, and they were likely overpaid for their product. Many also fail to recall the dramatic reduction of national cow herd numbers a mere decade ago, forcing packers to close plants and reduce capacity because the supply of fed cattle was not enough to keep the plants solvent. No doubt processing disruptions and the pandemic created significant pressure and market volatility. As we continue to recover from the Pandemic, our marketing system based on quality, supply and demand continues to work precisely as it was intended. The difference today is the reality the majority of stakeholders marketing beef prefer to work within a quality-based system that creates opportunity and the incentive to continue to improve.

It is baffling to try to understand the rational of our government leadership that insists on requiring industry stakeholders to appear before your committees to defend a marketing infrastructure that functions as it is intended. Packers to producers to world renown ag economist all agree, and substantiate their almost 12 months of testimonies with facts, intervention in how livestock is marketed is seriously flawed and will most certainly have unintended consequences. In other words, another government boondoggle.

SB 4030 will result in turning back the clock more than 30 years and ignore the clear and present signals sent by consumers for higher quality beef. It will be an industry travesty to succumb to the pressure of uninformed or misinformed constituents, disrupt an economic marketing system based on quality and value. The beef industry, from gate to plate is incredibly complex and, at times, precarious. We must find solutions that do not involve government intervention. Please reject SB 4030.

Sincerely,

Randall K. Spare DVM

Randall K. Spare DVM
Ashland Veterinary Center Inc

April 19, 2022

The Honorable John Boozman, Ranking Member
Senate committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, D.C. 20510

RE: SB 4030

Dear Honorable John Boozman:

I am writing to oppose Senate Bill 4030. This bill will deter our effective value-based marketing system and reverse the quality of beef animal production from three decades of progress.

I own a finishing cattle operation with my three brothers. Our operation started with my father and my uncle in the 1960s. Our operation has seen many changes in the industry over these decades and the philosophy of improving the beef animal and marketing practices are on the forefront. These two proposed bills from Sen. Chuck Grassley and Sen. Deb Fischer threaten the quality of beef produced by giving every animal the same value rather than focusing on the underlying beef carcass.

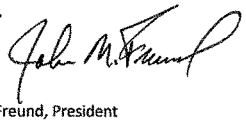
As a member and participant in US Premium Beef, our operation strives to produce high-quality beef for the consumer. We rely on the grid pricing structure of US Premium Beef and their association with National Beef to capture the value of the beef carcass.

Marketing cattle on an Alternative Marketing Arrangement (AMA) where value is established by the quality of product: producers are rewarded and paid for what they produce. Under the '50/14 rule' packers are required to purchase 50 percent of their needs in the cash market. Separated into 5 to 7 regions, these regions are not set today and I'm afraid we will group some producers into a market they do not want to be a part of, whereas today they are only limited by the freight cost, and/or the wellbeing of their animals in shipping distance to the market of their choice. So, I cannot support the bills as written.

Value-based marketing has proven to be a win for the industry for the entire beef supply chain especially the consumer. SB 4030 will turn our progress back and ignore consumer's preference and willingness to pay for high quality of beef. The evolution of Alternative Marketing Arrangement (AMA) is the result of nearly 30 years of producers seeking a pricing system to capture the complete value of the livestock. Capturing value on investments in beef cattle at harvest time when the animal produces a higher quality carcass with more value throughout the supply chain, including the meat case.

Packers have not forced cattle producers into marketing agreements. The cattle producer has just sought out a better value for their respective cattle. I have rarely seen a time when government has made anything better with a mandate, just picked different winners and losers. Private industry (our beef industry) will figure this disparity in margins out on our own, and our industry will evolve and become stronger for it in the long run.

Sincerely,



John M. Freund, President
J.W. Freund Farms, Inc.
63200 570th Street
Lewis, IA 51544

April 21, 2022

To:

Honorable Chairwoman, Debbie Stabenow

Honorable John Boozman

Senate Committee on Agriculture, Nutrition and Forestry

I write to you today from my desk in Southwest Kansas. A proud third generation member to a diversified agricultural company that celebrated its 80th year in business last year. We are farmers, ranchers and dairy men and women but most importantly we are stewards of the land we call home and the livestock that nourish our lands and our nation of people. As the fourth-generation members begin to come of age and work together within our business I write to you today with concerns regarding; Senate Bill 4030- "Cattle Price Discovery and Transparency Act."

I will be brief now that you know where I am coming from. The pandemic initiated a supply and demand issue in every business sector. Food insecurities and prices rose, while supply shelves emptied. Our world became flatter than it has ever been as we worked to conquer the invisible monster called Covid 19. The effect I need not illustrate, however as a producer who packs and contracts with a large packer we too felt and observed some painful realizations and I too made phone calls to try and understand the difficulties rising. Bottom line, the complications and details in this bill do little to conquer a supply and demand issue nor does it fix pricing practices and to call the bill transparent is an oxymoron at best. Is the problem real or perceived? How will adding regulation, reduce cost and level a playing field that before the pandemic only improved the quality of cattle across the nation, with incentive to produce a better animal. What appears to be hiding in this bill is who is actually driving it. The political objectives remain to be fully seen and I decline to write my own suspicions, however please do not pass a bill that is flawed, clearly not transparent, will create unfair practices across the regions and yet again place the producer in a position to foot the bill; our margins are thin enough.

Most respectfully,

Michele Irsik-Flax

Irsik Farms Inc.

President/Chairman BOD



April 15, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

Dear Senators Stabenow and Boozman,

I am writing to provide my comments on Senate Bill 4030 and to share my perspective on the issue of price discovery in the beef industry. Along with my brother, son and nephew, I run a diversified Angus seedstock operation in western South Dakota. We focus on genetics that produce high quality beef and have expanded our operation to include a calf buy-back program. Through this program we purchase calves from our seedstock customers that we finish in feedyards in Kansas, Nebraska, and Iowa. Blair Brothers Angus Ranch is also a founding member of US Premium Beef, which is a marketing cooperative established by producers to enable them to produce high-quality beef and own it all the way through the beef supply chain. We rely on the grid pricing structure of US Premium Beef and their association with National Beef Packers to capture value from our efforts to produce high-quality beef.

I have also spent over 40 years as a cattle market analyst and have a broad understanding of the cattle and commodity markets. From my perspective both as a market analyst and as a rancher I am very concerned with the unintended consequences of this bill. It is important to understand that packers have not forced feedyards into marketing agreements. Feedyard managers have used these agreements as highly effective risk management tools, and they have in turn made feedyards more efficient. Further, mandatory price reporting actually made USDA market reports slower and incomplete in some areas due to confidentiality issues. If the Cattle Price Discovery and Transparency Act were passed, the current price reporting system would still not allow for rapid price reporting due to these limitations. With over 40 years of experience studying and engaging with the cattle market, I can remember in the 1980's and 1990's the predominate pricing mechanism was negotiated cash, which resulted in all cattle being sold at essentially the same price. This mechanism was not able to differentiate high quality cattle from lower quality cattle, resulting in low beef demand. This stagnation in the market was the driver behind the development of Alternative Marketing Agreements. Mandating a set percentage of negotiated cash and rejecting pricing mechanisms that reward producers for raising cattle that produce the type of beef consumers demand is not sound legislation and will be detrimental to both producers and consumers. It's highly questionable if mandating a set percentage of negotiated cash will have different results than 30 years ago – doing the same thing and expecting different results is the definition of insanity.

While the present system is not perfect, it has evolved over time into a workable system. When it stops working for the majority of feeders then they will make a change, because again, they are not forced into these arrangements. If there was an easy answer, we would already have a different method of price discovery, however it is my sincere opinion that a legislative mandate fueled by a vocal minority is not the answer. The plan outlined in Senate Bill 4030 would effectively reward the inefficient and uninformed beef producer. In our experience, many of the small producers we have sold seedstock to are very progressive in their desire to improve their genetics and produce higher quality beef. This bill would hurt small producers that are working to find a niche in the market and add value to their cattle.

The central issue driving this discussion in the cattle market today has been a lack of slaughter capacity. Capacity limitations have been exacerbated by the Holcomb packing plant fire that eliminated that plant from production for 5 months followed shortly thereafter by packing plant shut-downs and slow-downs due to COVID-19. The cattlemen that have worked on their genetics and are producing the kind of cattle that the packer, retailer, and consumer desires are not having a hard time selling their cattle and furthermore they are able to sell them at a premium to the cash market because value-based marketing arrangements exist. We personally have cattle that beat average prices by $200-270 per head. This is possible because premiums were paid based on the quality of beef we are producing.

I would urge you and the Senate Committee on Agriculture, Nutrition and Forestry to recognize that if Senate Bill 4030 went into effect, the incentives to produce high-quality beef would be minimized, resulting in lower prices for quality cattle, lower quality beef for consumers, and loss of the competitive edge U.S. beef holds in the world market.

Best regards,

Richard Blair

Rich Blair
Blair Brothers Angus Ranch
Rich Blair Commodities
605-347-1212

CC Senator John Thune
Senator Mike Rounds
Representative Dusty Johnson

Kelly Hoeme
1208 Hillside Drive
Scott City, Kansas 67871
(620) 874-1132

April 21, 2022

The Honorable Debbie Stabenow, Chairwowman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition and Forestry
328 A Russell Senate Office Building
Washington, DC 20510

Dear Madam Chair and Members of the Committee:

As a feed yard owner and cattleman, I am writing to voice my strong opposition to Senate Bill 4030, the bill to reform the marketing of fed cattle through price discovery and transparency.

I am overly concerned about this dangerous plan which will limit the way producers market their cattle. We have worked hard to determine the best ways to raise and market our high-quality cattle through genetics, packer performance grids, feed options, and numerous other factors. Our operation has spent years to determine the best alternatives to bring our fed cattle to market. This bill will limit our options and threaten our marketing agreements that we have developed with packers.

This bill will cost our operation and countless others in our profession a tremendous amount of money. This proposed bill does not have the data to support how or if it will be profitable to the producers. Isn't the purpose of the bill to aid cattle producers? I do not see how limiting our options to market our cattle can help us be more profitable. We have worked diligently to increase the quality of our beef that the consumers are demanding. Value-based grids have been a great tool for us to deliver top quality beef for which we are known. This bill puts those tools in jeopardy.

Please oppose SB 4030 on the basis that this mandated bill will cost cattleman money with its lack of options for marketing our cattle, and lack of data supporting it would be profitable to producers.

Sincerely,

Kelly Hoeme

CC:
Senator Jerry Moran
Sentator Roger Marshall
Representative Tracey Mann

Bradley Scott
Scott and Son Cattle Inc.
45W619 Wheeler Rd
Sugar Grove, IL 60554

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

April 22, 2022

Dear Debbie Stabenow and John Boozman,

As a fourth-generation cattle feeder from Big Rock, Illinois, I feel compelled to express my strong opposition to Senate Bill 4030.

I have been using value-based grids to sell my finished cattle to meat packers since 2006. It has been my experience that having access to value-based grids has increased profitably versus only having one marketing option in the cash market. My motivation to market cattle this way not only benefits myself but the consumer as well. This system yields higher quality beef which not only rewards the producer but gives the consumer what they demand. Domestic beef consumption is at a 28-year high because our product has never been better.

It is in the best interest of our industry to compensate producers for superior quality. Having a singular marketing option in the cash market would disincentivize quality and result in quantity being the producer's sole concern. This is not in the best interest of the producer nor the consumer.

Respectfully,

Bradley Scott



Means Ranch Company, LTD.

Post Office Box 489

Van Horn, Texas 79855

April 14, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
United States Senate
Washington, D.C. 20510

and:

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
United States Senate
Washington, D.C. 20510

Dear Senators Stabenow and Boozman,

I am writing this letter to you to express my concern and opposition to Senate Bill S. 4030 introduced by Senators Grassley and Fischer.

While I understand and appreciate the concerns many cattle producers have over the current process by which cattle prices are determined when sold to packers, I must disagree with Senators Grassley and Fischer that this bill they propose is a good option for addressing those concerns.

Let me say first that everyone agrees vigorous price discovery is necessary for all market participants. However, this latest Senate bill is potentially damaging to value-based marketing, and Alternative Marketing Arrangements (AMA's) in general. Government intervention in how I ultimately market my finished cattle is concerning. S. 4030 calls for just that kind of intervention.

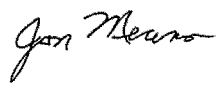
My first concern is that this bill wants to divide up the market into regions and require cattle purchase through approved pricing mechanisms. Approved by whom? Do I as a producer have any say in this approval process? And the regions? Who will be allied with whom in this plan?

How does the establishment of regions and approved pricing mechanisms ensure fair access for all producers to these marketing arrangements? Then there is the library of marketing contracts, mandated reporting (here we go again) of boxed beef output, carcass weights and head counts scheduled for harvest. Who is going to pay for all these additional reporting costs? Doubtless it will be producers like me. The consumer is already bearing the burden of sky-high costs due to the serious supply constraints and input costs associated with our product.

In addition, I have concerns about how the mandated cash trade is going to work. The increase in the percent of USDA Choice and Prime grading carcasses has been significant in the past few years. Data exists which confirms that the consumer is willing and wanting to consume higher quality beef at higher prices. It was producers, not packers who conceived, developed and implemented value-based marketing and AMA's which have helped to fuel this higher quality/higher price beef market. Value-based marketing has shifted the risk surrounding potential carcass quality to the producer. This shift in risk is one of the reasons why processors are willing to pay premiums for targeted beef products that result in greater revenue. I know that the use of value-based grids has allowed us to improve the quality of our product delivering a better eating experience for consumers. And it has put money in my pocket. I take pride in the high-quality beef now available everywhere in this country. If it is mandated for the industry to shift a percentage of the risk back to the packer as a spot market transaction will surely do, this action will NOT be healthy for value-based marketing or put more money in the pocket of producers like myself. These new rules could ultimately force many producers to abandon our desire to participate in an AMA.

I urge you to resist Senator Grassley's and Senator Fischer's ill-conceived bills and to allow those of us in the industry to utilize ingenuity and hard work to produce excellent quality beef that is safe and healthy for all Americans and consumers worldwide at prices that reward producers fairly.

Sincerely,



Jon Means



DALEBANKS.COM

April 19, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510
Dear Senator Boozman,

I write you today in opposition to Senate Bill 4030 (S. 4030), the Cattle Price Discovery and Transparency Act of 2022, introduced by Senators Charles Grassley (R-IA) and Deb Fischer (R-NE).

In 155 years farming and ranching in the Flint Hills of Kansas, our family has seen its share of market challenges. In nearly all of these market downturns, we have witnessed a few vocal cattlemen asking for help from the government. And usually, the well-intentioned programs that were designed to "help" ranchers resulted in even more pain for producers in the long run. We believe that industry-led solutions are much more effective than costly government mandates.

I graduated from Kansas State University in 1996. It was a bleak time in the cattle business, with low prices for both cattle and beef. Consumer demand was at its lowest point in history. Nearly all fed cattle sold in the negotiated cash market, and most sold for the same price. It was a true commodity scenario, with little incentive to produce higher-quality beef. Meanwhile, consumers turned to other proteins, because much of the beef purchased at the time did not meet their expectations for quality.

About that same time, a group of cow-calf producers had a series of meetings to address this issue of the "one size fits all" pricing structure of fed cattle. These cattlemen knew there were quality differences in beef, and they believed that consumers would pay more for "the good stuff." They were also businessmen, and they realized that no one would produce better beef if they were not paid premiums to do so. They saw the long-term effects of falling consumer demand, and they knew we had to build more consistent profit opportunities into the beef production system.

So they gathered support for their value-based marketing "grid" concept, and then they sat down with representatives of the beef processing segment until they found someone who would give them a chance to put their model into practice. This was the start of US Premium Beef, and in reality, the beginning of the quality revolution that has regained beef's position as the premium protein across the world.

As with any novel concept, there were unintended consequences. One of these is a large movement of "negotiated cash cattle" toward grids, formulas and other alternative marketing arrangements (AMAs). Most cattlemen will agree that we need to address this reduced number of "cash" cattle, which

620-583-5033 · mattperrier@dalebanks.com · 1021 River Road, Eureka, KS 67045 · DalebanksAngus



effectively sets the base for most of these AMAs. **I agree. Our beef community needs to find better ways to establish adequate price discovery.**

But I do **not** believe that government regulation will result in sustainable profitability for cattlemen. Regardless of what supporters of the Grassley-Fischer Mandate may say, our industry has not shown the ability to equitably price fed cattle based on their true consumer value. Therefore, I fear that requiring minimum levels of cattle marketed through "approved" pricing mechanisms may quickly return us to a "one price takes all" scenario of commodity pricing. This could move us back toward low-cost production instead of the consumer-focused mindset that the industry has moved toward in recent years.

From my perspective, this is a discussion of short-term vs. long-term benefits to cattlemen. S. 4030 may take us back to the tough-guy image of cowboys squeezing a few more dollars out of the packer's pocket when we have leverage, just to give it all back when market leverage shifts back in the packers' favor. Meanwhile, we'll leak billions out of the entire beef industry as consumers see beef quality and consistency decrease. Let us remember that the true source of additional value (DOLLARS) injected into the beef industry must come from the consumer purchasing our products.

Cattlemen have historically been an independent bunch. We believe in smaller government and less market intervention. When faced with challenges, we sit deep and find ways to improve our profitability. The Grassley-Fischer Mandate flies in the face of everything in which we have historically believed. It would not only invite a government mandate to send false market signals, it would jeopardize our ability to create value at the consumer level and incentivize producers for meeting that demand.

Do we need to address price discovery in fed cattle? I believe that **indeed we do**. But let CATTLEMEN address this complex issue ourselves instead of making government mandates that force us to retreat to a commodity market. Beef producers have made huge strides in the areas of beef quality, consistency and carcass utilization in the last two decades. It is not worth erasing that progress, when we should be addressing a more intelligent solution: consumer-driven price discovery.

Thank you for your time and attention to this important issue. Those of us who are busy improving our cowherds and the beef they produce ask that you give us the opportunity to address our own marketing issues instead of adding regulations that will likely create even more problems.

Sincerely,

Matt Perrier
Dalebanks Angus Ranch
Eureka, KS

620-583-5033 · mattperrier@dalebanks.com · 1021 River Road, Eureka, KS 67045 · DalebanksAngus

MESQUITE CATTLE FEEDERS INC.

P. O. Box 1025 • Brawley, CA 92227 • (760) 344-4718 Office • (760) 344-9770 Fax

April 13, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

From: Paul Cameron, Mesquite Cattle Feeders Inc.

Subject: Cattle Price Discovery and Transparency Act of 2022

My name is Paul Cameron and I am the President of Mesquite Cattle feeders Inc. located in Brawley California. Our company also owns Lariat Feeders Inc., located in Dodge City Kansas. We are multi-generational family-owned businesses that have been in operation since the 1950's.

I am writing this letter today in strong opposition to the Cattle Price Discovery and Transparency Act of 2022. The Grassley-Fischer Mandate will limit the way we are able to market cattle. We rely on marketing agreements to manage price risk and to stay competitive in a business with very tight margins.

We are a custom owned cattle operation that feeds and markets fed cattle for ranchers and cattle feeders located throughout the United States. Our customers rely on our marketing agreement to have their cattle bring top dollar at time of marketing. Because of these agreements our customers have been able to continuously improve the genetics in their herds, and therefore increase the quality of beef we are producing. This in turn increases beef demand and the satisfaction of the consumers who purchase our beef.

With the extreme market volatility seen in our industry since 2020 the marketing agreements have been a way for us to manage price risk during these periods and provide a safety net to our customers during these times. I strongly believe that the Cattle Price Discovery and Transparency Act is a step in the wrong direction for the industry, and will create more adversity than benefits to producers. Thank you.

Sincerely,

Paul Cameron

STEDJE LIVESTOCK
14780 FM 1262
Gruver, TX 79040

Tim Stedje
(806) 338-0181 Cell
tstedje@gmail.com

Brent Stedje
(806) 664-6646 Cell
bjsted@hotmail.com

Date: April 19, 2022
To: The Honorable Debbie Stabenow, Chairwoman
From: Tim Stedje
Subject: S. 4030

Senator Stabenow,

I'm reaching out regarding S. 4030 – the latest version of the Cattle Price Discovery and Transparency Act of 2022. As you may recall, this bill was first introduced as S. 3229, designed to reform fed-cattle marketing and introduce more robust price discovery and transparency in the marketplace.

Despite the author's good intentions, S. 4030 would effectively handicap producers across the Texas Panhandle by limiting the way we market cattle. Under the bill's current language, those of us who manage price risk via direct agreements with packers could experience unintended consequences, potentially resulting in substantial revenue losses. In particular, our operation has benefitted greatly from premium-based grids – a marketing tool that could face limits under S. 4030.

In addition to the marketing limitations imposed by this bill, the increased level of government intervention will inevitably raise costs to producers by forcing reliance on cash negotiations. Government-mandated cash transactions would require more time and more resources from both producers and packers.

In closing, I am a farmer/feeder in the Texas panhandle. We finish cattle in our family-owned feed yard and market 100% of our fed cattle with US Premium Beef. We're proud to provide a safe, wholesome, high-quality product. We're asking for your help to ensure that our operation, and countless others across the Texas Panhandle, can continue to market our cattle in the way that works best for our businesses.

Please feel free to call or email with any questions you may have.

Respectfully,

T Stedje

Tim Stedje

4/19/2022

TO:

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

RE: Cattle Price Discovery and Transparency Act of 2022

I am writing in opposition to Senate Bill 4030, the Grassley-Fischer Mandate. Our company operates commercial cattle feeding operations in Kansas and Oklahoma. We have owned U.S. Premium Beef shares since the beginning of that organization. We also market cattle on other grids that are available from other sources.

Our business produces high quality beef and markets it on a grid designed to pay the producer for a superior product. We buy feeder cattle, paying premium prices when warranted, and manage them to optimize their performance against the grid. It has been a successful business model. We also produce commodity beef that is marketed in the cash market. Having both options available allows us to feed the right cattle to their optimum potential. Quality has improved over the years as we have learned the genetics and management practices needed to get the best outcomes from the cattle we feed.

- The Grassley-Fischer Mandate will ultimately limit the way cattle producers are able to sell their cattle. Under the Act, some cattle producers who currently manage their price risk through marketing agreements with packers will lose their agreements, not because they want to, but because the government requires it. Meanwhile, other producers – particularly those in other yet-to-be-defined regions – will be allowed to keep their agreements.

- Government intervention in the market would impose costs. More daily cash negotiations require more time and financial resources for feeders and packers. Fewer AMAs mean fewer opportunities for producers and feeders to manage risk in periods of market volatility. At the 2022 American Farm Bureau Federation Annual Convention, Dr. Stephen R. Koontz, professor in the Department of Agricultural and Resource Economics at Colorado State University said, "Mandated cash trade is not going to get you better price discovery."

- Several ag economists at multiple universities have evaluated the bill and concluded this bill will cost cattlemen money. No one has provided data to support the Grassley-Fischer assertion that the mandate will be profitable to producers.

We have spent decades developing and refining a business model that produces high quality beef. Please don't pass legislation that will interfere with our ability to market cattle for the best economic and quality outcomes.

David Latta
General Manager
Pratt Feeders, LLC
Pratt, KS

Wayne Peck
4125 Harper Rd.
Mason, Mi. 48854

April 19, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition and Forestery
328 A Russell Senate Office Building
United States Senate
Washington, D.C. 20510

Dear Senator Boozman

Ref. Senate Bill 4030

I am writing to express my concerns on the 4030 Bill. As an initial unit holder in US Premium Beef, have seen the advantages of value based marketing. In the last 27 years there has been a large increase in the percent of USDA Choice and Prime grading carcasses. This was made possible because producers adjusted their herds to produce the higher grades. This was done to get a premium when the fed cattle were marketed.

Everyone agrees vigorous price discovery is necessary for all market participants. However this bill is potentially damaging to value-base marketing, and Alternative Marketing Arrangements (AMA's). Government intervention in how we market our cattle is very concerning. If S.4030 were to be approved, who determines how finished cattle are marketed, will it be the feeder, owner, processor or the government? Mandating procurement is not synergistic with the manner USPB members market their finished cattle. It was producers, not packers who conceived, developed and implemented value based marketing and AMA's. With a spot market transaction, much of the risk regarding carcass quality is squarely with the packer.

With value-based marketing this risk shifts to the producer. This is one reason processors are willing to pay premiums for targeted beef products that result in greater revenue. Shifting the risk back to the packers will not be healthy for value-based marketing. I have been down the spot market road and the results were not good.

This increased quality has given the consumer more choices to obtain quality beef that is superior in taste and more consistent than it was years ago. This improved customer satisfaction has increased demand for choice, Black Angus and prime beef. This has gone up considerably in the past ten years. These grades are now much more available at the retail level and the consumer is willing to pay a premium for this product.

Sincerely yours.

Wayne Peck

Wayne Peck



PERFORMANCE BLENDERS

Where Performance is an Ingredient

The Honorable Debbie Stabenow
Chairwoman
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
United States Senate
Washington, D.C. 20510

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
United States Senate
Washington, DC 20510

April 20, 2022

Dear Senator Stabenow and Senator Boozman,

Comments: Senate Bill 4030 – Cattle Price Discovery and Transparency Act of 2022

I am a small business owner and livestock producer. I have been in the livestock feed business for 40 years. In the late 1990's the production and marketing of swine made some dramatic changes which affected many of my small customers. About this same time the finished cattle markets in my area began to disappear. In an effort to keep my smaller cow/calf, farmer feeder customers in business with a marketing program, I became affiliated with U.S. Premium Beef (USPB). I leased and later purchased shares/units of USPB to gain market access and collect carcass data for my producers. Since the beginning, we have worked with over 200 producers, marketed over 30,000 head of cattle, and made tremendous improvement in genetics and created a marketing program that is consumer driven and focused. Every animal has been sold on a value-based carcass merit program. The captured quality and brand premiums have allowed my customers and me to survive and thrive in a very competitive industry. Some of our accomplishments will follow.

The national average of cattle that grade USDA Prime is 6%. My customers have improved their genetics and feeding practices over the last 20 years. In the 2019 marketing year, we sold 97% Choice and Prime, of which 36% was Prime (6 times the national average), 71% qualified for Certified Angus Beef, and 7% Black Canyon Premium Reserve. After the first case of BSE (mad cow), was found in the U.S in December of 2003, we provided Age and Source verified cattle that were eligible for export to Japan and other countries. We have also provided cattle that were eligible for natural programs where no animal by-products, antibiotics or implants could be administered. All of these accomplishments by my producers have given them the opportunity to compete by capturing premiums in the marketplace. During May 2020, during the worst of COVID-19, we sold a pen of cattle that graded 85% USDA Prime. Just recently, a small local producer produced 75% USDA Prime on 20 head. There is still a way to make a profit with the cash cattle reporting/pricing structure that is in place along with Alternative Marketing Arrangements (AMA's).

PERFORMANCE BLENDERS

Where Performance is an Ingredient

In the past 20 years we have only had to delay the delivery of cattle ONE time for ONE week. Most of the time the national cash market is significantly higher than the "local cash" if we can even find that price. Many times a local cash price is on one or two animals….not any volume. Many producers and local processors call us to determine the most current carcass quality prices.

In 2021, we had the highest premiums for USDA Prime beef we have ever experienced. Our program has focused on producing high grading cattle for over 20 years. The packers have offered premiums and we have bred and fed cattle to supply this consumer driven market. During the last half of 2021, we had 13 different producers capturing $150-$400 PER HEAD in premiums for Prime cattle. These producers used genetics, feeding programs, and marketing to ADD and CAPTURE VALUE for their operation. These premiums were high because consumers have a more enjoyable eating experience, demand has increased, and the industry has been rewarded.

Our program has worked well for those producers with replacement heifer development programs, selling freezer beef and small producers selling one or two head at a time. We become their back-up marketing option. Many times we have five to seven owners on one semi load. This involves working together, focusing on genetics and quality, being consumer driven, and the beef producers being more responsible for what, where, and how they market their cattle. I DO NOT believe this bill would improve the marketing and/or pricing opportunities for small producers. We have proven that the present program of price discovery and marketing has worked for me and my participating producers. Now there are other individuals in my area doing the same thing as we have been doing for the past 20 years. I think that says there is opportunity to make more money for everyone while improving the quality of beef for the world and supplying the wants and the needs of the American consumer.

Thank you for reading my comments. I appreciate your time and consideration of my viewpoint.

Gerald E. Shinn

Gerald E. Shinn
Owner

Performance Blenders, LLC
P.O. Box 200
Gordonville, MO 63752-0200

April 21, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328 A Russell Senate Office Building
Washington, DC 20510

RE: Senate Bill 4030

Dear Chairwoman Stabenow and Ranking Member Boozman:

I am writing to express my opposition to Senate Bill 4030. It is detrimental to the free-market system that our independent beef industry prides itself on.

I began feeding in 1971 with my father & grandfather. At that time, each sale was negotiated by the owner, not the feedyard, with the packer. We were paid for the quality of the cattle we were selling. Details of the trade were not published for the public or other producers & buyers to see. It was felt by many that those details should be made public so mandatory reporting was established by our government. The results were that everyone wanted the top price, regardless of the quality they were selling. Poor quality began receiving more money and high quality less as we began moving toward being paid an "average" price. For the next 25 year we lost market share to pork & chicken as there was no market incentive to produce or improve on quality.

In the 1990s value-based marketing began to emerge to better reward producers who were improving the quality they produced. With the monetary incentive to produce quality beef rising, more and more "good" cattle were being raised and the beef industry began to recover domestic and foreign market share from pork & chicken. Consumers want good beef and are willing to pay for it!

As all this has taken place the better cattle are being sold on grids to reward the producers for the quality they are producing, leaving the poorer quality cattle in the cash market, thus driving down the cash prices to reflect what is being sold.

We are currently in an oversupply problem due to an array of factors including an oversupply of cattle, the Tyson plant fire, too few plants in operation, and not enough workers for those few plants to run at capacity. The free market is working to correct these factors on its own: cow numbers are declining, more plants are being built and the removal of COVID restrictions is getting people back to work.

In my 50+ years of feeding cattle I have seen numerous attempts from government intervention wreck me and fellow cattlemen. In the dairy buyout of 1973, we lost money for 18 months straight due to the government trying to make things better for dairies. In Carter's administration, he froze the price for a period, interrupting the normal market flow, resulting in catastrophic consequences to farmers and rancher. Post covid we can't afford a repeat of "good intentions" if this bill passes.

The cattle industry can rectify itself if left alone. Please let the market correct itself. We DO NOT need government intervention!
Sincerely,

Roger Giles
Giles Ranch
Ashland, Kansas

Harp Farms, Inc.
Larry and Rebecca Harp
Post Office Box 452
Green Forest, Arkansas 72638

April 18, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Committee Agriculture, Nutrition and Forestry
328A Russell Senate
Washington, DC 20510

Senator Stabenow,

I am writing you regarding my opposition to Senate Bill 4030. If enacted, this bill would require U.S. Secretary of Agriculture to establish 5-7 regions throughout the country and establish minimum levels of fed cattle purchases through "approved" pricing mechanisms. This includes negotiated cash, negotiated grid, cattle sold through stockyard and through trading system that multiple buyer and seller can make and accept bids. A publicly available contract library of marketing contracts, mandating boxed beef reporting, expediting reporting of caress weights, and require packers to report the head count scheduled to be delivered for slaughter each day for the next 14 days. Also penalties would be assessed to cover packers for violations. A 'covered packer' are those required to report via Mandatory Price Reporting.

As a member of the U. S. Premium Beef, associate from 36 states share a belief that quality beef begins at the ranch and end with satisfied consumers. We have made a commitment to select the right genetics and to use the best possible production practices to produce consistent, high-quality beef. The Grassley-Fischer Mandate will ultimately limit the way cattle producers are able to sell their cattle. Under the Act, some cattle producers who currently manage their price risk through marketing agreement with packers will lose their agreement, not because they want to, but because the government requires it. Meanwhile, other producers – particularly those in other yet-to-be-defined regions – will be allowed to keep their agreement.

Government intervention in the market would impose costs. More daily cash negotiations require more time and financial resources for feeders and packer. Fewer AMAs mean fewer opportunities for producer and feeders to manage risk in periods of market volatility. At the 2022 American Farm Bureau Federation Annual Convention, Dr. Stephen R. Koontz, professor in the Department of Agricultural and Resource and Economic at Colorado State University said "Mandated cash trade is not going to get you better price discovery." Also, several ag economists at multiple universities have evaluated the bill ad concluded this bill will cost cattleman money. No one has provided data to support the Grassley-Fischer assertion that the mandate will be profitable to producers.
This introduced legislation is very concerning to value-based marketing, and those that participate in Alternative Marketing Arrangements (AMA's).

USPB members have worked for many years to understand all aspect of the beef production industry. Data clearly exists which confirm consumer inclination and want to consume higher quality beef at higher prices. Mandating procurement as describe in Senate Bill 4030 is not cooperative with the ways

USPB members market their finish cattle.

Please review and consider this when making a decision on Senate Bill 4030. I would appreciate your vote against this bill as it is will negatively impact beef producers nationwide.

Sincerely,

Larry D Harp

Larry D Harp

Arkansas Cattlemen's Association
www.arbeef.org • 310 Executive Court • Little Rock, Arkansas 72205 • (501) 224-2114

April 25, 2022

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition and Forestry
328A Russell Senate Office Building
Washington, DC 20510

Dear Ranking Member Boozman:

I write today to express the Arkansas Cattlemen's Associations (ACA) thoughts on S. 4030, the Cattle Market Price Discovery and Transparency Act of 2022. Founded in 1959, and representing over 8,500 members, the ACA is a grassroots organization that serves as the trusted voice of cattle producers across the great state of Arkansas.

As you are aware, Arkansas cattle producers face unprecedented challenges. Soaring fuel prices, inflated fertilizer costs, and rising feed bills are taking a daily toll on our industry. While cattle prices have increased, excessive input costs negate any positive margin. Arkansas cattle producers need greater opportunities and options to freely market their cattle as they deem appropriate for their business model. Therefore, the ACA opposes S. 4030 as currently written since it would limit producer's ability to execute a business model that works best for their operation.

During extensive discussions and meetings on S. 4030, and prior versions of the bill, which included presentations from subject matter experts across the country, the ACA's Cattle Marketing Working Group could find no positive correlation between mandating a certain percentage of cash trade in the fed cattle market to improved prices in the live cattle markets. In fact, a study recently published by well-respected economists from the University of Arkansas noted, "Quantitative and qualitative results suggest that the [Cattle Price Discovery and Transparency Act] may decrease Arkansas cattle prices, reduce incentives to improve cattle quality in Arkansas, and shrink the size of the Arkansas cattle industry…Analysis show that even small increases in negotiated trade volumes through mandates could reduce Arkansas cattle value by $4 million to $6 million per year." Given the current state of inflationary economy and its impact on our industry, a reduction in cattle value due to government interference is unacceptable.

Arkansas Cattlemen's Association
www.arbeef.org • 310 Executive Court • Little Rock, Arkansas 72205 • (501) 224-2114

The ACA supports legislation that would increase competition in the packing sector of the beef cattle industry, remove unnecessary regulatory burdens on cattle producers, and increase marketplace transparency. But S.4030 does not meet these goals and places arbitrary restrictions on cattle producer's ability to operate in a free market. While the ACA appreciates you and members of the Senate Agriculture Committee for holding a legislative hearing on the bill to discuss the policy, we respectfully request S. 4030 remain in the Committee until a workable solution is more broadly recognized and supported.

The ACA appreciates your willingness to consider our thoughts. As an organization, we stand ready to be a resource to you and your staff as the Committee considers this, and other legislation, related to live cattle marketing.

Respectfully,

Phillip DeSalvo
President
Arkansas Cattlemen's Association

CALIFORNIA CATTLEMEN'S ASSOCIATION
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April 12, 2022

The Honorable Debbie Stabenow
Chairwoman
Sen. Agriculture, Nutrition & Forestry Comm.
328A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Ranking Member
Sen. Agriculture, Nutrition & Forestry Comm.
328A Russell Senate Office Building
Washington, DC 20510

RE: S. 4030, the Cattle Price Discovery and Transparency Act – OPPOSE

Dear Chairwoman Stabenow and Ranking Member Boozman:

The California Cattlemen's Association (CCA), on behalf of more than 1,700 cattle ranchers and beef producers throughout the State of California, writes in **strong opposition** to S. 4030, the Cattle Price Discovery and Transparency Act.

CCA supports efforts to improve price discovery and ensure market transparency, but such measures must not interfere with producers' ability to choose marketing methods which best suit their individual business models and which allow them to manage risk and realize returns on investments in a manner that best suits their operation. CCA has been supportive, for instance, of efforts to improve price discovery and market transparency through the establishment of a cattle contract pilot program and reforms to Livestock Mandatory Reporting. CCA cannot, however, support policies which impose market-altering mandates which limit producers' freedom to market cattle in a manner that returns the highest possible value.

At the 2022 Cattle Industry Convention this February, CCA leadership (advised by the Association's Price Discovery Subcommittee) advanced a policy resolution opposing any mandates on negotiated cash trade volumes for cattle, as well as any other policies which limit producers' freedom to utilize existing marketing arrangements. Based on the California delegation's policy proposal, the National Cattlemen's Beef Association's membership subsequently adopted policy stating that "NCBA opposes any mandate on cash trade volumes for cattle or any other legislative or regulatory policies that would limit the methods producers utilize to market cattle."

CCA must oppose S. 4030 because it would impose precisely those "mandate[s] on cash trade volumes for cattle" to which California's cattle ranchers – and indeed, cattle ranchers nationwide – have voiced their fervent objection. Particularly troubling is S. 4030's establishment of "5 to 7 contiguous regions…that…together encompass the entire continental United States" and the imposition of "a mandatory minimum…for each covered region." Currently, California producers overwhelmingly market via contract-traded cattle, with very little cash trade. By imposing mandatory minimums in each region of the country, S. 4030 would be guaranteed to severely disrupt the way California cattle ranchers have chosen to market their cattle.

TONY TOSO
PRESIDENT
HORNITOS

BEV BIGGER
TREASURER
VENTURA

BILLY GATLIN
EXECUTIVE VICE PRESIDENT
SACRAMENTO

SHEILA BOWEN
SECOND VICE PRESIDENT
GLENNVILLE

TREVOR FREITAS
SECOND VICE PRESIDENT
TIPTON

STEVE ARNOLD
FIRST VICE PRESIDENT
SANTA MARGARITA

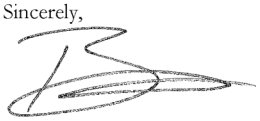
JESSE LARIOS
FEEDER COUNCIL CHAIR
BRAWLEY

RICK ROBERTI
SECOND VICE PRESIDENT
LOYALTON

JOE DAN CAMERON
FEEDER COUNCIL VICECHAIR
BRAWLEY

CCA urges your opposition to S. 4030, the Cattle Price Discovery and Transparency Act, and we stand ready to work with you moving forward to develop the price discovery and market transparency tools the nation's cattle producers need.

Sincerely,



Billy Gatlin
Executive Vice President

CC: The Honorable Senator Dianne Feinstein
The Honorable Senator Alex Padilla

Comments on the "Cattle Price Discovery and Transparency Act of 2022"

Authors:
Derrell S. Peel, Breedlove Professor of Agribusiness and Extension Livestock Marketing Specialist, Oklahoma State University
David Anderson, Professor and Extension Livestock Marketing Specialist, Texas A&M University
John Anderson, Professor and Head, Department of Agricultural Economics & Agribusiness and Director, Fryar Price Risk Management Center of Excellence, University of Arkansas
James Mitchell, Assistant Professor and Extension Livestock Marketing Specialist, University of Arkansas
Christopher Bastian, Professor, University of Wyoming
Scott Brown, Professor and Extension Livestock Marketing Specialist, University of Missouri
Stephen Koontz, Professor and Extension Livestock Marketing Specialist, Colorado State University

Date: April 20, 2022

1. The cattle contract library (CCL) may add transparency and understanding as to the nature of types of contracts used in AMAs. Should this library happen, there needs to be some mechanism for weeding out contracts that are not used on a regular basis or perhaps putting them in some type of archive by date of use. This would allow producers and researchers to investigate current contract norms versus contract terms that are not currently in use. This is a problem with the current pork contract library.

2. Does AMS really have the resources and ability to implement this CCL in the way intended? It seems unlikely.

3. There is no research evidence of any significant or persistent fed cattle price discovery problem at this time. This legislation is attempting to solve a problem that does not exist. As such, this legislation offers zero benefits for fed cattle markets and imposes many millions of dollars of additional cost, added risk, and lost value. The exact cost will depend on details of implementation, but the cost is minimally hundreds of millions of dollars resulting in lower feeder cattle prices and higher consumer beef prices.

4. Thinning negotiated trade is a concern and could become a problem. Price discovery is a public good problem, in that market participants collectively value and use negotiated price information, but individually have numerous incentives to not participate in price discovery. There is a need for continued monitoring and research to understand how to mitigate a potential lack of adequate price discovery and to identify alternatives and mechanisms to mitigate or compensate for the disincentives to participate in price discovery.

5. Definition of regions may well be an issue given confidentiality rules. For example, three separate parties must be in a region for something to be reported, not three separate plants. If three plants operate in a region, but only two parties own them, confidentiality rules will preclude public reporting from those three plants. In some instances, large regions would need to be defined to include three separate parties that also slaughter 5% of the weekly total. How useful these regions would be for providing regional market information on prices is questionable.

6. The public price reporting system has never before been used for regulatory purposes. Using reported prices in a regulatory system will create incentives for market participants to circumvent intended definitions. That is, firms will seek ways to reduce their transactions costs by defining trades such that they meet the negotiated trade rule. This could result in more cash trade (according to the definition), but lower quality information that is actually less useful.

7. The previous version of the bill had language related to the USDA Office of the Chief Economist being involved in implementation. Language in this version of the bill puts the responsibility of setting minimum threshold levels solely with the Secretary of Ag. The current language suggests the Secretary will "examine the academic literature regarding minimum levels of negotiated transactions necessary to achieve robust price discovery...". These thresholds do not exist in the reviewed/published academic literature. Moreover, it is our contention that even if

such thresholds did exist they would not simply be constant values. Rather, these thresholds would vary with supply changes, demand changes, and unforeseen exogenous shocks occurring in the market. Given the complexity of this concept and the paucity of objective data and analysis related to it, the Secretary of Agriculture will be more than likely left with "political" objectives, not "economic efficiency" as a guiding principle in determining "minimum thresholds". The current cap of 50% is in the bill, will this be the new threshold? What other politically driven numbers could this result in? **The higher the thresholds, the higher the "known economic costs and negative impacts to the beef sector overall."**

8. The incentives to reduce risks and transactions costs for producers and packers associated with quality and timing of sales and deliveries to plants will still exist with implementation of this bill. As such, forcing "minimum thresholds" will increase these risks and transactions costs for both producers and packing plants utilizing AMAs at a level beyond whatever the prescribed minimums, that cannot be objectively justified, turn out to be if this bill is implemented.

9. There is no academic literature that indicates any analysis pointing toward benefits that can be quantified with these minimum thresholds. Benefits of reduced AMA use (alternatively, higher negotiated cash trade) are generally speculative. As noted, evidence that higher negotiated trade will positively impact prices, reduce marketing margins, or improve price discovery is lacking. However, many market participants clearly see negotiated cash trade as a good in and of itself. To the extent the industry desires greater cash market engagement, lower cost means of achieving this outcome are available.

10. Feedlots and packers will respond to the incentives that this legislation creates. Research is needed to understand the incentives the bill creates and the market outcomes that would follow. Specific areas of research are highlighted below.
    a. The bill would be administered at the plant level, and a plant-level assessment of the data is needed to fully understand how plants would realize increased costs and adjust their business models and marketing practices.
    b. Research is needed to understand how feedlots and packers will substitute formula trades with negotiated trades. Similarly, research is necessary to know how feedlots and packers will substitute away from formulas using a cash base price to other formulas, e.g., futures price plus basis as the base price. Determining which of these substitution effects dominates will be a crucial piece of information. If the latter example (futures market) substitution dominates the market, the bill could actually lead to further erosion in cash market participation.
    c. The bill proposes redefining market reporting regions. Considerable research is needed to evaluate the impacts on public information of alternative specifications for these regions. Consideration should also be given to how some level of continuity of data could be maintained in the event of a significant reconfiguration of regions. This is necessary for an accurate assessment of any benefits or costs associated with such change before and after implementation of different regions.

11. The phrase "robust price discovery" is subjective, with no formal definition in the economics literature. To our knowledge, no research exists that offers prescriptive levels of regional negotiated trade that would improve a subjective measure of robust price discovery. On the basis of improving price discovery, it is unlikely that research will be able to offer estimates for regional mandatory minimums because price discovery is dependent on the situational supply and demand fundamentals. An alternative research perspective would be to determine the regional mandatory minimums that minimize the economic deadweight loss of restrictions on marketing alternatives such as those proposed in the Cattle Price Discovery and Transparency Act of 2022.

Costs and Benefits of Mandatory Negotiated Cash Participation in Fed Cattle Markets

Stephen R. Koontz
Department of Agricultural & Resource Economics – Colorado State University
January 12, 2022

What are the costs and benefits of mandating levels of negotiated cash market participation in fed cattle markets? This document offers a perspective from a synthesis of research evidence (see chapters and references in "The U.S. Beef Supply Chain: Issues and Challenges" published by Texas A&M University Agricultural and Food Policy Center 2021) and from understanding economics within the cattle and beef industry. Mandating increased cash market participation will result in less use of Alternative Marketing Arrangements or AMAs. In fed cattle markets AMAs are predominantly formulas and forward contracts. Formulas, forward contracts, and the cash market are how almost all fed cattle are exchanged between and valued by the cattle feeding and meatpacking enterprises. About 20% of fed cattle transactions occur in the cash market and about 10% occur through forward contracts. Thus, increasing the cash trade will require less use of formula methods which are about 70% of fed cattle trade. Therefore, costs of increased negotiated cash trade will be at least the reduced benefits from formula use.

Why to cattle feeders use formulas? Because formulas create value. When interviewed about the value of formulas to individual operations those cattle feeders stated this marketing method was worth about $20 per head and that was in 2003-04. When asked again in 2013-14 cattle feeders stated formulas were worth at least $25 per head. Cattle feeders that used formulas could support that valuation with a discussion of evidence. What are these benefits? Cattle feeding operations that used AMAs were more efficient, had lower costs, and higher returns. Over the 2018-19 period informal discussions with cattle feeders suggest the value of formulas had increased briefly to $65-$80 per head. The value of formulas is greater than the average profitability associated with cattle feeding.

Why do meatpackers use formulas? Mainly because cattle feeders insist. The innovation and creativity in this marketing method was primarily discovered by cattle feeding enterprises. However, once implemented then meatpackers also became more efficient, had lower costs, and higher returns. Published research also showed that packers that used formulas operated at higher volumes, had more consistent volumes, lower slaughter and fabrication costs, and sold the resulting beef for more money – this was observed in packer P&L data at the plant level. These results were supported by interviews, and when interviewed about the value of formulas to individual operations those packers stated this marketing method was worth about $10 per head 2003-04. When asked again in 2013-14 packers could construct valuations closer to $25 per head.

Mandating cash market participation is mandating potentially less efficiency, higher costs, and lower returns for the cattle feeding and meatpacking industries. How large is the impact? It is reasonably between $30 and $50 per head on the share of the industry impacted – the mandate does not impact every animal but those no longer on formulas. If a 30% cash trade mandate is adopted, and 20% is currently traded in the cash market, then the losses are on 10% of the total animals fed – or 10% of the $30 to $50 per head -- $3-$5 per animal. If a 50% cash trade mandate is adopted the losses are on 30% of the total animals fed – or 30% of the $30 to $50 per head -- $9-$15 per head. These $3-$5 or $9-$15 per head impacts are reductions in feeder cattle prices of animals going into feedlots. If packers are less efficient, have higher costs, and lower revenues then they will pay less for fed animals. If cattle feeders

are less efficient, have higher costs, and lower revenues then they will pay less for feeder cattle. And the two impacts are combined in the resulting impact on feeder cattle and calf prices. In today's dollars the total direct impact to the producers supplying animals into the cattle feeding system is reasonably from $35 per head to $65 per head. These are per animal losses or costs to upstream producers.

Further, *and this is an important contingency*, these impacts are not distributed evenly across the entire cow-calf or calf backgrounding industries. The mandates under consideration will impact all cattle feeding regions of the country but will impact cattle feeders in the upper Midwest the least while impacting cattle feeders in the southern plains the most. Formulas are most used in the southern plains and mandates would be the most disruptive to cattle feeding enterprises marketing cattle in the Texas-Oklahoma-New Mexico USDA AMS price reporting region and in the Kansas AMS region. Cattle feeding in Colorado would also be strongly impacted. Impacts in the southern plains will be close to the total $35 to $65 per head amount.

Why are formulas used more extensively in the southern plains than in the upper Midwest? The throughput of cattle in the southern plains is more easily out of balance between cattle feeders and packers. Packers in the region can easily have their entire animal needs bought for the subsequent three to four weeks. Additional information is needed to coordinate the cattle flow in the southern plains. This is especially the case since the closure of the large packing plant in Plainview, Texas as of February 1, 2013. Cattle numbers were extremely tight in this period and there were insufficient supplies to operate all the plants in the region. Closing that plant prevented severe losses to its owner that would have occurred in 2013 through 2016. But as a result, cattle feeding and packing capacities in the region are more narrowly in balance. And getting out of balance can persist for months.

Returning to the current market environment and today's price levels, and thinking about future marketing environments, the value of AMA use will be larger. It will not be smaller, mandates will have larger negative impacts, and those impacts cannot simply be managed around. Going forward the impacts will be $50 per head or larger. However, making use of this $50 per head negative impact, 25 million fed cattle marketed per year, and an impact on 10% of those animals then the total impact is at least a $125 million cost per year. If the impact is on 30% of the industry, then the total impact is a $375 million cost per year – in perpetuity or for the life of the policy mandate. And again, the distribution of the impacts is in the southern plains and on cow-calf producers – particularly in the southeast U.S. – and backgrounding operations that supply those regions.

The negative impacts of lost use of AMAs will also have *market level ramification* and not simply stop with $50 per head negative impacts on calf prices for animals going into formula agreements. First, there is strong research evidence that AMAs are risk reducing. This is in part traditional price risk but that is not the only risk. There are a variety of other production, financial, and market risks mitigated through AMAs. Limiting AMA use will increase risk and the costs associated with cattle feeding. Second, there is evidence that AMA use has led to improvements in beef animal carcass quality and feeding performance. Through AMA use the innovators that have made these improvements have been able to recover the higher value of fed animals. This is not possible within a more commodity system. Finally, there is strong belief within the meats industry that AMA use is in part responsible for improved beef demand. The improvements in quality have been rewarded by consumers in increased spending on beef – *the entire cattle industry has benefited from improved quality within some portion of the industry.* All these factors combine to move supply and demand relationships and impact to entire cattle and beef marketing system. Estimating the impacts of mandates within this context reveal valuations of over $1

billion per year. This magnitude was published in Congressionally funded prior research (i.e., the USDA-RTI Livestock and Meat Marketing Study).

The economic benefits of AMAs are large and well-documented. What are the costs? One dimension of the costs of AMA use has been well researched. The line of questioning was related to *market access*. Are producers forced to use AMAs or, on the other hand, are producers prohibited from using AMAs? The answers are a resounding "no" to both. Surveys and interviews with producers revealed no firsthand experience whereby producers were forced into formulas. Surveys and interviews with producers also revealed that producers had access to formulas which they negotiated – with the packer with which they were doing business—and between two business entities with trust. There are packers with well-known interests in high quality grade animals, or high yield grade animals, or animals to satisfy demand from a market interested in characteristics not in USDA grading systems – for example, natural, NHTC (nonhormone treated cattle), or cattle for an export market. Producers were able to negotiate participating in these opportunities to the extent that packers were involved in these markets, had the ability to commit, and where entities worked together to common business goals.

The portion of costs of AMA use that has not been well researched is the impact of AMA use on price discovery. Prior research has not much examined specifically the price discovery impacts. But livestock and meat markets are very well studied and understood. *There is no research position that prices in cattle and beef markets do not reflect underlying supply and demand conditions*. There is some evidence of market power being exercised in cattle and beef markets, but the market power distortion is small compared to benefits of economies of size and to benefits from AMA use. In particular, the research-based impact of AMA use on cattle prices is very small.

AMAs do impart a cost on fed cattle markets, but it is not market power related. The cost is related to the provision of information. The marketing of fed cattle through AMAs makes use of the price information discovered by those who negotiate in the cash market. Formulas are almost always based on a USDA AMS price reported in one of the five major regional markets. Likewise, forward contracts make use of basis information – the spread between cash and futures prices – where the underlying cash price is a USDA-reported price. Forward contracts are the other main AMA used in the cattle industry. Finally, almost all cattle feeding operations benchmark transactions against some reported USDA AMS price. Price discovery and the information provided through that process is a *public good*. The marketing methods that do not use the cash market make use of information provided by that process. Price discovery is work. Users of AMAs avoid that work. Users of AMAs make use of cash price information – saving the cost of negotiating as well as the cost associated with the risk of the negotiation failing – and contribute little. This is the tragedy of the commons, and it is a *market failure*. However, market failures in the provision of information are very common and certainly not at all unique to fed cattle markets.

However, and this is critical, AMA use does not create or dissipate leverage in market price negotiation – relative supply and demand does. *AMAs only impact the provision of information, but there is no evidence that the resulting prices are somehow wrong*. Market participants may need to work to improve market function, but efforts to do so must maintain balance between innovation, cost-savings, efficiency, knowledge, and any mandate. Changing the level of AMA use will not improve market prices for cattle producers, nor would it change the supply and demand picture; but it does have the potential to disrupt efficient operations and make market outcomes worse for producers. This is especially the case in the southern plains and southeast.

Public goods are underprovided in a market economy – this is the case with negotiated fed cattle cash price information – and it is made worse by AMAs. But the issue is not that the market failure exists. Under-provision of public goods is more or less a tautology. The examples of portions of our economy and society that benefit from the benevolence of others – without payment – are substantial and numerous. (*For example, AMA use has improved beef demand and the entire industry has benefited from the actions of those using AMAs.*) The issue at hand is whether or not the remaining and resulting cash market transactions are accurate. Are the transitions that take place in the resulting thinned cash market biased or inefficient? Are the resulting transactions systematically incorrect? There is no research-based evidence of this. Such a result cannot be concluded from in the scientific literature. Changes to marketing institutions that could improve market function – and also limit market power – are possible, but such changes would need to be more sophisticated than volume mandates.

Price discovery is about prices adjusting quickly to new market conditions – and that may be higher prices or lower prices. Some of the highest cattle market prices in history have been when the negotiated cash trade was the smallest. This is because of the supply/demand imbalance and not AMA use. Likewise, low cattle prices are due to the supply/demand balance or imbalance and not due the path by which cattle are marketed. For example, mandating levels of negotiated cash trade would not have changed the supply/demand imbalance in the 2020-21 period.

While it should be clear that AMA use does not impact fundamental supply and demand conditions in the fed cattle market, it should also be clear that valuing a week's worth of fed cattle transactions based on a very small number of animals that are actually negotiated is not without potential problems. The market power question and similarly the leverage question that has been the focus of so much recent discussion and debate within the industry are not the same as the question or problem of how thin is too thin in the fed cattle negotiated cash market. Changing the number of animals marketed through the cash market as opposed to through formulas does not change the underlying supply and demand balance and will not reduce market power or change market leverage. The discussion needs to move into determining how thin is too thin? This should be done in the context of objective measures of price discovery. This is a researchable question.

Cash market mandates would not have changed the market conditions seen in 2020-21 or seen since the cattle market price peaks of 2014-15. Cash market mandates will not create market conditions seen prior to 2013 and will not improve cattle and calf prices. More price discovery will not result in better fed cattle and calf prices – and will likewise not result in more market leverage for producers. Cash market mandates have high costs and little to no benefits. AMA use has clear benefits -- $35 to $65 per animal within AMA market channels -- $50 per head is a reasonable and conservative amount. AMA use only imparts costs on the system to price discovery. *But there is no evidence the lost price discovery is worth $1-$2 per head, much less worth $50 per head. Cash market mandates will cost the cattle and beef industry on net at least hundreds of millions of dollars per year and possibly over a billion.*

If minimums are adopted, then it is reasonable to require those minimums should be enforced on both cattle feeders as well as packers. This is not only fair but recognizes the incentive, or lack of economic incentive, to change. The overwhelming interest in developing formulas came from the cattle feeding industry. Packers have created value through formula use, but it is the cattle feeding industry that created the impetus to move to formula use. Interestingly, there are vocal cattle feeders that use formulas that have also pressed for more price discovery. But this simply recognizes that everyone that uses formulas would like more *other* businesses to not use formulas and trade cash cattle. Again, this is

the market failure and is evidence of the underlying economics at work. Formulas are valuable, but need cash market information to work, everyone wants to keep using their formula, and have other businesses cash trade. It is a substantial problem that mandates, as are being considered, do not recognize the primary source of the incentive to use formulas and not trade in the cash market.

Finally, it is worth discussing the potential impact of mandating a minimum volume of cash trade on what is reported for price information and known about cattle valuation. It is also possible that these mandates may lead to some substantial changes in trading of fed cattle – and feeder cattle and calves – or simply reveal the limits to a mandate. The creators of and businesses that make use of formulas view those efforts as negotiations. Both the cattle feeder and packer are involved in determining how the formula works. Cattle feeders and packers have agreed to trade cattle this week using a base last week's reported price. It would be easy to simply continue to do so and agree that transaction is a negotiated grid price. The transaction would be called negotiated in the price reporting system. It is easy and possible to simply transition as much of the formula trade as needed to negotiated grid category and not increase price discovery activity. If cattle feeders and packer agree to trade cattle at last week's price as a base, then is that not negotiation? It is negotiated. Current price reporting relies on the individuals that are doing the trading to determine if the trade is negotiated. In this case the goal of the mandates is defeated. And we will not be able to determine if the volume of cash trade impacts the amount and quality of price discovery. Or will some third-party verification be needed? And for everyone who trades fed cattle? Mandates can require negotiated trade but cannot enforce bid and ask. And then in this situation what is learned by knowing negotiated versus formula prices? Mandates will not work without enforcement that currently does not exist. Or without knowing the hearts and minds of participants. Enforcement does not appear possible without knowing market participant's intent. I do not believe this conduct can be mandated – the reporting of categories can – but behavior such as this by individuals in a marketplace cannot. I am not the only academic with this perspective. Is legislation going to make people, who don't want to trade cattle, trade cattle? The realizing intent of legislated – or even administrative – mandates simply do not appear possible.

For mandates to work then it appears to require that all fed cattle trading be conducted through auction houses. Institutions which do not currently exist. Perhaps this will cause – or require – the development of cattle trading through electronic platforms. That is currently something that does not much exist now and has the potential to lead to a marketing system – for fed cattle, feeder cattle and calves – that is substantially different from what exists today. This is likely the direction the marketplace will go in the future, but it is substantially different from the marketplace that exists today. Some portion of the industry can trade on purely arms-length transactions but other, and substantial, portions appear to require additional communication and coordination. Formulas are alternatives to the cash market that are innovations and improvements that have benefited the entire industry – and not without cost but costs appear minimal. Risks associated rejecting these innovations appear substantial.

In short, the potential costs of mandates are many and high while the benefits are few and negligible. The benefits are also likely not achievable – or enforceable – without tremendous change. An objective assessment of mandates results in a rather one-sided conclusion. This is a conclusion drawn when an assessment of existing research undertaken, when a position is established based on facts and science, and when viewed based on economics of cattle and beef markets.

WILSON CATTLE COMPANY 1884

Dear Bobby, Isaiah and Jeff,

I am Zach Wilson, General Manager of Wilson Cattle Co, yearling cattle company and cow-calf operation in Oregon with a footprint throughout the state. As you may be aware, on Tuesday, April 26, the Senate Ag Committee will hold a legislative hearing on S. 4030, the Cattle Market Price Discovery and Transparency Act of 2022 and S. 3870, the Meat and Poultry Special Investigator Act of 2022. I am aware that Senator Wyden is a cosponsor of S. 4030 and that he is not a member of the Committee. However, I wanted to make you and the Senator aware of our concerns with both bills. Specifically, S. 4030 would create regional mandatory cash minimums for traded fed cattle, which would result in unintended consequences for those of us who retain ownership of our cattle through the final feed period, like Wilson Cattle Co. This will also negatively affect other small farmer feeders & cow/calf producers through suppressed feeder prices, as well as consumers who rely on us to provide their families with high quality, safe, nutritious beef.

Attached is a letter outlining, in more detail, our concerns with S. 4030. Please do not hesitate to reach out if you have any questions or need further clarification.

Thank you,

Zach Wilson, General Manager
Wilson Cattle Co
North Powder, OR
541-898-2288 office
zach@beefnw.com



500 S. Taylor, Suite 601
Amarillo, TX 79101

April 21, 2022

The Honorable Jerry Moran
521 Dirksen Senate Office Building
Washington, DC 20510

Dear Senator Moran:

I write today to share Friona Industries opposition to S. 4030, the Cattle Market Price Discovery and Transparency Act.

Today, Friona Industries has eight state-of-the-art feedyards in north Texas and southwest Kansas, with a feeding capacity that ranks us as the second largest cattle feeder in the United States. We continue to focus on a vertically aligned production system that creates a consistent, safe, tender and flavorful beef for branded product lines marketed in 2,300 retails stores in the U.S.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Friona Industries the freedom to market our cattle in the manner that best suits our business, without government interference, is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe. The industry has established a value-based marketing system and this legislation will negate much of the progress that has been made by jeopardizing many of the confidential business-to-business contracts that have been established.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors. As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market

FRIONA INDUSTRIES

500 S. Taylor, Suite 601
Amarillo, TX 79101

condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, illustrating that now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Friona Industries understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Establishing regional mandatory cash trade minimums could result in unintended consequences for our eight Feedyards located in Texas and Kansas jeopardizing our business model, and hurting our employees and their families. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work, wasting taxpayer dollars. Furthermore, the bill will also provide market information which will be utilized by the beef processing and retail sectors of the industry to potentially gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library. A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure no harm comes to individual producers or the industry. Providing confidential, business-to-business information to the most sophisticated segment of the cattle industry likely shifts additional market leverage to the segment of the beef supply chain that holds all the market leverage today: the beef processing and retail sectors.

Consumer demand for beef today is strong, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety, and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential AMAs. These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are

[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).

FRIONA INDUSTRIES

500 S. Taylor, Suite 601
Amarillo, TX 79101

applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to the highest levels of beef demand in the past 30 years.

Legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

Friona Industries appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,



Don Gales
CEO
Friona Industries
763.219.2756

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

LAVACA
CATTLE CO. INC.

April 21, 2022

The Honorable Michael Bennet
261 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Bennet:

I write today to share LaVaca Cattle Company's opposition to S. 4030, the Cattle Market Price Discovery and Transparency Act.

LaVaca Cattle Co, headquartered in Littleton, has a significant footprint in beef cattle production and cattle marketing in Colorado. We operate multiple agribusiness firms, which include 4M Feeders, a 55,000 head feedyard and a 25,000-acre row crow farm, located in Eastern Colorado. Additionally, LaVaca Cattle Co. owns five ranches in Colorado, the Bueck, Lone Cedar, Denver Buffalo Company, Comanche Creek, Proudfoot and the Bradberry Ranch, collectively managing 4,000-plus mother cows. Furthermore, we are partners with the Gabel Family in Magnum Feedyards, which is a 22,000 head cattle feedyard and 2,500-acres of farmland, located near Wiggins.

As a business, we market over 500,000 head of beef cattle annually within our feedyards as well as 75,000 to 80,000 futures trades – primarily agriculture commodities – per month through our commodity brokerage firm, LaVaca Trading, which operates out of our Littleton offices. LaVaca Cattle Co. is active in Colorado agriculture, and we strive to employ high quality, hardworking people who share our commitment to safeguard our state's natural resources while producing the safest, most abundant, highest quality beef products.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At LaVaca Cattle Co. the freedom to market our cattle in the manner that best suits our business, without government interference, is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe. The industry has established a value-based marketing system and this legislation will negate much of the progress that has been made by putting at risk many of the confidential business-to-business contracts that have been established.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture

2489 W. Main St.
Ph: 303-730-2300 Littleton, CO 80120 Fax: 303-730-3223

immigration reform, among other factors. As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

LaVaca Cattle Co. understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Establishing regional mandatory cash trade minimums could result in unintended consequences for our multiple cattle partnerships, jeopardizing our business model, and hurting our employees and their families. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work, wasting taxpayer dollars. Furthermore, the bill will also provide market information which will be utilized by the beef processing and retail sectors of the industry to potentially gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library. A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure no harm comes to individual producers or the industry. Providing confidential, business-to-business information to the most sophisticated segment of the cattle industry likely shifts additional market leverage to the segment of the beef supply chain that holds all the market leverage today: the beef processing and retail sectors.

Consumer demand for beef today is strong, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety, and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential AMAs.

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[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).

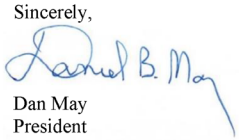
These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to the highest levels of beef demand in the past 30 years.

Restricting free market principles and limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products. Finally, Congress should not be in the business of overreaching and injecting artificial market signals, either through regional mandatory cash minimums or publishing information in a cattle contract library, that provides, in perpetuity, more leverage to one segment of the industry at the expense of all others and the end consumer.

Legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

LaVaca Cattle Co. appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,



Dan May
President
LaVaca Cattle Company
2489 Main Street
Littleton, CO 80120
dmay@lavacattle.com

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

April 25, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Committee on Agriculture,
Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC, 20510

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture,
Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC, 20510

Re: Cattle Price Discovery and Transparency Act of 2022

Dear Chairwoman Stabenow and Ranking Member Boozman:

The undersigned state cattle organizations respectfully urge that you and other members of the Senate Committee on Agriculture, Nutrition, and Forestry oppose the Cattle Price Discovery and Transparency Act of 2022 (S. 4030).

Our organizations have successfully led a voluntary, private-sector, market-based effort that has increased negotiated cattle trade to levels recommended by university economists and supported by extensive economic research. We remain diligent in these efforts and are opposed to any proposals that would mandate how cattle must be sold or limit cattle producers' freedom to market cattle in a manner that returns the highest value. S. 4030 would set a dangerous precedent and lead to significant unintended consequences for producers and consumers.

Price discovery and transparency are necessary and important to the cattle industry to ensure functional markets and efficient risk management. Our organizations and members are supportive of efforts that accomplish better price discovery and transparency through free market mechanisms that avoid unnecessary costs to cattle producers and maintain the freedom to realize value-based marketing arrangements that respond to consumer demands for high-quality, sustainably produced beef.

We support less intrusive transparency measures that center on data collection and dissemination rather than market interference. For instance, a cattle contract library pilot program passed in the Fiscal Year 2022 Omnibus Appropriations Act. Once this pilot program has been designed, implemented, and properly evaluated by Congress, USDA, and the larger cattle industry and proven to provide producers with useful market information, we would consider supporting a longer-term extension of the cattle contract library. In addition, Congress could enact changes to Livestock Mandatory Reporting (LMR) to ensure more trades appear in daily and weekly cattle market reports. Finally, certain LMR regions often have data excluded due to confidentiality constraints, while other areas of the country are not even included in LMR reports despite having significant numbers of fed cattle trade on a regular basis. Congress should expand current LMR regions to supplement existing data. For example, a 2019 USDA-funded study recommended that Wyoming should be added to the Colorado Region and South Dakota and Illinois should be added to the Iowa/Minnesota Region.

The threat of government control over cattle markets is extremely concerning. We respectively request that you oppose S. 4030 and let cattle producers continue to address this issue through a voluntary approach based on sound, free-market principles.

Sincerely,

American National CattleWomen
Arizona Cattle Feeders Association
California Cattlemen's Association
Colorado Cattlemen's Association
Colorado Livestock Association
Florida Cattlemen's Association
Hawaii Cattlemen's Council
Idaho Cattle Association
Illinois Beef Association
Indiana Beef Cattle Association
Kansas Livestock Association
Kentucky Cattlemen's Association
Louisiana Cattlemen's Association
Michigan Cattlemen's Association
Montana Stockgrowers Association
National Cattlemen's Beef Association Livestock Marketing Council
Nevada Cattlemen's Association
North Carolina Cattlemen's Association
Ohio Cattlemen's Association
Oklahoma Cattlemen's Association
Pennsylvania Cattlemen's Association
South Carolina Cattlemen's Association
South Dakota Cattlemen's Association
Tennessee Cattlemen's Association
Texas and Southwestern Cattle Raisers Association
Texas Cattle Feeders Association
Utah Cattlemen's Association
Washington Cattlemen's Association
Washington Cattle Feeders Association
West Virginia Cattlemen's Association

cc:

Senator Patrick Leahy	Minority Leader Mitch McConnell
Senator Sherrod Brown	Senator John Hoeven
Senator Amy Klobuchar	Senator Joni Ernst
Senator Michael Bennet	Senator Cindy Hyde-Smith
Senator Kristin Gillibrand	Senator Roger Marshall
Senator Tina Smith	Senator Tommy Tuberville
Senator Richard Durbin	Senator Chuck Grassley
Senator Cory Booker	Senator John Thune
Senator Ben Ray Luján	Senator Deb Fischer
Senator Raphael Warnock	Senator Mike Braun

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April 25, 2022

The Honorable Debbie Stabenow
Chairwoman, Senate Committee on Agriculture, Nutrition, and Forestry
328-A Russell Senate Office Building
Washington, D.C. 20510

The Honorable John Boozman
Ranking Member, Senate Committee on Agriculture, Nutrition, and Forestry
328-A Russell Senate Office Building
Washington, D.C. 20510

Dear Chairwoman Stabenow and Ranking Member Boozman,

On behalf of the American Farm Bureau Federation (AFBF), the nation's largest general farm organization, we are pleased to provide comments on S. 4030, the Cattle Price Discovery and Transparency Act of 2022.

AFBF policy, which is developed, deliberated, voted on, and adopted by Farm Bureau members, generally supports certain provisions of S. 4030 that would benefit livestock producers, including:

- Section 3: 14-Day Cattle Slaughter Report
- Section 4: Expedited Carcass Weights Reporting
- Section 6: Cattle Contract Library

However, AFBF remains opposed to the provisions included in Section 2 and Section 7 specific to the establishment of federal mandatory minimum thresholds under which certain percentages of cattle are purchased. We are also concerned that there is a lack of economic evidence that suggests mandatory negotiated pricing raises prices for producers.

As discussions surrounding cattle markets and producer profitability continue, AFBF looks forward to working with the bill's sponsors and the Senate Agriculture Committee to identify reasonable solutions that benefit cattle producers nation-wide. AFBF encourages the Committee to consider alternative language that promotes transparency and price discovery without a federal mandate.

Thank you for holding this hearing and considering AFBF's views relating to the Cattle Price Discovery and Transparency Act.

Sincerely,



Zippy Duvall
President

ADAMS
LAND & CATTLE

April 21, 2022

The Honorable Deb Fischer
454 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Fischer:

I write today to share Adams Land & Cattle's opposition to S. 4030, the Cattle Market Price Discovery and Transparency Act.

As you are familiar with our operation, we employee over 150 employees and have three feedlots around Broken Bow and Bertrand, NE. These three feedlots have a capacity of 130,000 head and harvest 250,000 – 300,000 head yearly. We also have 120,000 head of one-time capacity in over 100 backgrounding locations in Nebraska and surrounding states.

Our company supplies cattle to Tyson, which, as you know has processing facilities in Lexington and Dakota Dunes, NE. Through our affiliation with Tyson, we negotiate an alternative marketing arrangement (AMA) grid structure which incentivizes us to produce consumers' preferences for choice and prime cattle. Because of these AMAs, our company has moved from 55 percent choice/prime to over 90 percent choice/prime. As a result, we continually pay extra premiums for high quality calves and have invested in expensive processes to achieve the consumers' desired preferences. If ALCC is mandated to operate our business in an artificial cash trade market place, we will be unable to pay more for high quality calves as it will not make economic sense for our business model.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Adams Land & Cattle, the freedom to market our cattle in the manner that best suits our business, without government interference, is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe. The industry has established a value-based marketing system and this legislation will negate much of the progress that has been made by jeopardizing many of the confidential business-to-business contracts that have been established.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors. As a result, the industry was forced to change operational

protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of AMAs. Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of cattle grading choice 35 percent since 2005. Finally, the economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Adams Land & Cattle understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Establishing regional mandatory cash trade minimums could result in unintended consequences for our three feedlots located near Broken Bow and Bertrand, jeopardizing our business model, and hurting our employees and their families. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work, wasting taxpayer dollars. Furthermore, the bill will also provide market information which will be utilized by the beef processing and retail sectors of the industry to potentially gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library. A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure no harm comes to individual producers or the industry. Providing confidential, business-to-business information to the most sophisticated segment of the cattle industry likely shifts additional market leverage to the segment of the beef supply chain that holds all the market leverage today: the beef processing and retail sectors.

Consumer demand for beef today is strong, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety, and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential AMAs.

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[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head."(https://www.drovers.com/news/beef-production/peel-feedlots-maintain-cattle-inventories#:~:text=Total%20steer%20and%20heifer%20(fed,the%20largest%20percentage%20since%202004) multiplied by $50/head (https://agfax.com/2022/01/11/livestock-cattle-packers-and-mandated-cash-trade-dtn/).

These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to the highest levels of beef demand in the past 30 years.

Restricting free market principles and limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products. Finally, Congress should not be in the business of overreaching and injecting artificial market signals, either through regional mandatory cash minimums or publishing information in a cattle contract library, that provides, in perpetuity, more leverage to one segment of the industry at the expense of all others and the end consumer.

Legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

Adams Land & Cattle appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,



Jerry D. Adams
CEO
Adams Land & Cattle
e-mail: jerry.adams@adamslandandcattle.com
Mobile: (308) 870-2427

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

Testimony Submitted for the Record
Julie Anna Potts, President and Chief Executive Officer,
North American Meat Institute

Hearing before the Senate Committee on Agriculture,
Nutrition, and Forestry

To Review
The Cattle Price Discovery and Transparency Act of 2022 and
The Meat and Poultry Special Investigator Act of 2022

April 26, 2022

On behalf of the North American Meat Institute (NAMI or the Meat Institute) based in Washington, DC, and its members around the country, thank you for the opportunity to submit this testimony.

The Meat Institute is the United States' oldest and largest trade association representing packers and processors of beef, pork, lamb, veal, turkey, and processed meat products. NAMI members include over 350 meat packing and processing companies, large and small, and account for over 95 percent of the United States' output of meat and 70 percent of turkey production.

Executive Summary

This testimony provides a comprehensive picture of the uniquely complex, dynamic, integrated, and competitive markets in which cow-calf producers, stockers, backgrounders, cattle feeders, beef packers, processors, distributors, wholesalers, retailers, food service operators, and others operate.

The testimony begins with a summary of the complex cattle and beef markets, followed by an examination of the supply and demand fundamentals driving the markets. U.S. Department of Agriculture (USDA) data show record beef production in 2019, 2020, and 2021, despite capacity constraints at packing and processing plants. Data also show cattle prices rebounded as packing capacity came into balance with the cattle supply, highlighted by cattle prices reaching their third-highest January price in the last decade during January 2022.

The testimony also rebuts claims that industry concentration has led to inflation. The four-firm concentration ratio for fed cattle slaughter has not changed appreciably in nearly 30 years; today's skyrocketing inflation across the economy results from supply chain issues and high demand, not industry concentration.

The testimony addresses proposed legislation and regulation. The cattle cash market mandate proposed by Senators Chuck Grassley and Deb Fischer would increase costs for producers and consumers at a time of high input costs and crippling inflation. Moreover, the mandate would have regional disparities: the Texas-Oklahoma-New Mexico region, Kansas, and Nebraska would shoulder the vast majority of the costs, while the Iowa-Minnesota region would escape relatively unscathed. For these and other reasons, lawmakers should oppose inserting the federal government into the free market.

Finally, USDA is promulgating new proposed rules to regulate packers, which are likely to have far reaching, unintended consequences. At the same time, Congress is considering establishing a politically appointed Special Investigator within USDA to add to the Department's existing enforcement personnel, duplicating resources. With the promulgation of the new rules, the Special Investigator (and staff) would be compelled to bring cases to test the legal limits of the new rules, even if those cases are not warranted. The resulting legal uncertainty and chaos will accelerate changes in livestock and poultry marketing that will up-end the supply chain, adding costs to producers, consumers, and packers.

Congress and USDA should resist making radical changes to the cattle and beef markets.

Overview of the Highly Complex and Dynamic Cattle and Beef Markets

Too often, the policy debate around the cattle and beef industry is an overly-simplified discussion limited to cattle producers versus beef packers. In discussions on these topics, it is imperative policy makers remember: packers don't buy fed cattle from cow-calf producers; nor do packers sell beef to consumers.

As Dr. Dustin Aherin testified before the House Agriculture Committee's Livestock and Foreign Agriculture Subcommittee last summer:

> …[C]attle are not beef. Cattle are one of several inputs into beef production. Other major inputs include labor, physical capital, and technology. These inputs are always seeking, but never finding, the perfect balance between one another.[1]

[1] Aherin, Testimony before the House Agriculture Livestock and Foreign Agriculture Subcommittee, July 28, 2021.

The policy debate should be focused on a much broader context encompassing the dynamics across the whole value chain. For example, a recent paper published by the Federal Reserve Bank of Kansas City notes that one animal – and the beef produced from it – "could be sold as many as six times before it finally reaches the consumer."[2]

Cattle change hands before they get to the slaughter plant, and for beef, each step in the post-slaughter process that are carried out by a variety of entities, is taken to add value and supply specific products for specific uses in various consumer markets.

Though the fundamentals of supply and demand that drive cattle and beef markets are relatively straightforward, the markets themselves are extremely complex. Although highly integrated, cattle markets and beef markets have their own supply and demand factors.

Derrell S. Peel, PhD, the Charles Breedlove Professor of Agribusiness in the Department of Agricultural Economics at Oklahoma State University, provides context in Chapter 1 of a must-read research paper for policymakers, *The U.S. Beef Supply Chain: Issues and Challenges*, published by The Agricultural and Food Policy Center, Texas A&M University.

Dr. Peel emphasizes the sheer complexity and magnitude of the cattle and beef market.

> It is reasonable to ask why the beef cattle industry should be plagued with so many contentious issues that have persisted for so long. Much of the reason is attributable to the fact that the U.S. cattle and beef industry may well be the most complex set of markets in existence. In its entirety, the cattle and beef industry represents an extraordinarily complicated set of cattle production and marketing activities which provide the source of a massive set of beef products marketed through a diverse set of final markets and all coordinated by a multitude of inter-related market transactions. (p. 3, emphasis added)

Looking at the cattle market first, from the ranch to the slaughter plant, live cattle typically change ownership two to three times – Dr. Peel describes "multiple distinct and separate" cattle production sectors.[3] Cow-calf producers market their calves to cattle feeders, or to backgrounders who in turn sell those cattle to feeders. While calves are an output for a cow-calf producer, they are an input for backgrounders and feedlots who also operate in the cattle market.

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[2] Cowley, C. Long-Term Pressures and Prospects for the U.S. Cattle Industry, Kansas City Federal Reserve Bank Economic Review, December 17, 2021

[3] See *The U.S. Beef Supply Chain: Issues and Challenges*, p. 3-4

The price for cattle at any of those three most common points of transactions is a function of how many cattle are in each respective market segment at a given point in time. In other words, the price is determined by supply of cattle to sell from one segment and the demand to buy cattle by the next segment. That explains why each segment can experience different margins and why there is a futures contract for two types of cattle: feeder cattle and fed cattle. When any of those segments are out of balance, prices move, and such moves can be dramatic.

But that's just the cattle production side. Once a fed steer or heifer is finished at the feedlot, it is sold to a packer: a feeder's output and one of a packer's inputs are fed cattle. That animal is slaughtered and processed into various primal cuts. Those primal cuts are fabricated by the packers and/or further processors into numerous products, from muscle cuts like steaks, to hamburger or processed beef products. Dr. Peel also shines a light on the complexity and diversity of the processing, retail, and food service sectors:

> Packers fabricate to specific product specifications for various retail grocery customers, further processing and food service customers, and a variety of export markets. As a result, the major packers produce several thousand different products from a basic fabrication process that begins with several hundred carcass products and by-products of slaughter and fabrication. Some packing facilities in certain locations have some or all packing capacity dedicated to value-added programs that operate as sole-source for upstream suppliers and downstream markets. (p. 23)
> ...
>
> The COVID-19 pandemic revealed, somewhat to the shock and surprise of both consumers and producers, that the supply chains for retail grocery and food service are largely separate, very specialized, and quite complex. Not only are various beef cuts often used in different supply chains or used differently, but products like ground beef for retail grocery and for food service originate in very different supply chains (Peel, 2021). (p. 24)

That was a lesson learned during COVID: as beef demand skyrocketed but packers' operational capacity to slaughter cattle was constrained, beef prices increased. This was seen across the beef supply chain, from the largest packers down to the local custom slaughter "locker plant."

Supply and Demand Fundamentals at Work in the Beef Industry during COVID.

Last summer, testifying before the Senate Committee on Agriculture, Nutrition, and Forestry, Dr. Glynn Tonsor of Kansas State University highlighted the relationship between cattle prices and the size of the cattle herd, which has too often been forgotten or conveniently ignored during cattle market policy discussions. Dr. Tonsor testified:

> Perhaps no relationship is currently more central to economic discussions in the U.S. beef-cattle industry than the relationship of fed cattle inventories to processor capacity.[4]

Cattle herd size must remain top-of-mind during any discussion of cattle prices. USDA released its annual cattle inventory report on January 31, 2022, which provides a snapshot of the total cattle herd in the U.S. as of January 1. Compared to a year earlier, the report showed a reduction at every level in the U.S. beef cattle herd:

- Beef cows for breeding down 2 percent;
- Replacement heifers for breeding down 3 percent;
- Calf crop born in 2021 down 1 percent;
- Expected calf crop in 2022 down 3 percent; and
- Feeder steers and heifers for beef harvest down 3 percent.

This, combined with strong beef demand continuing from 2021, suggests that 2022 will be a bullish year for cattle producers. This is especially the case as the supply of fed cattle becomes more aligned with the operational capacity of the packing industry's ability to harvest and process the available supply of cattle.

Indeed, after five years of growth in the cattle supply, combined with the impact that COVID, insufficient labor, and supply chain disruptions had on the packing industry, cattle supply and demand were out of balance.

Cattle prices hit record highs in 2014 and 2015, when the overall cattle herd was at its smallest since 1952 (for context, that was during the Truman Administration). Those record prices incentivized rapid herd expansion among producers.

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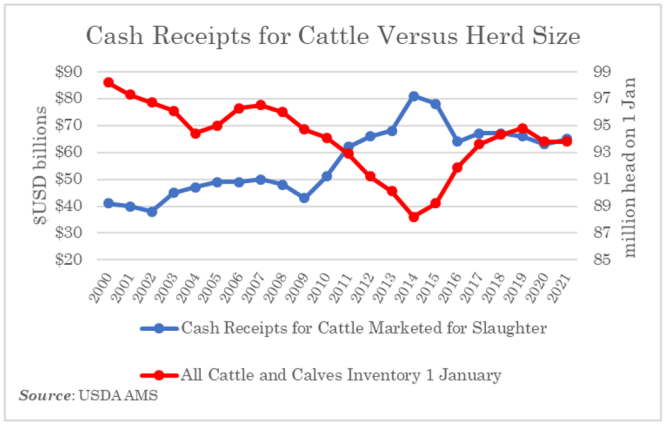
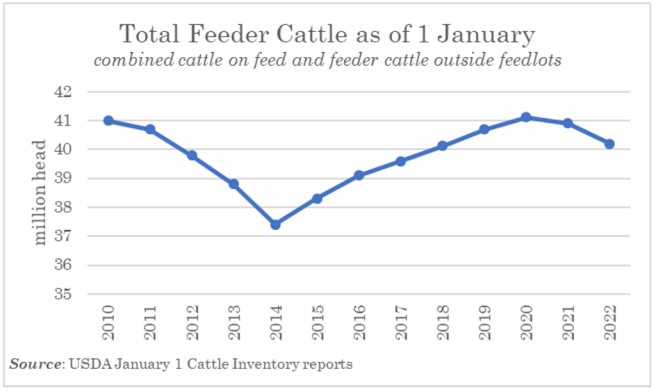
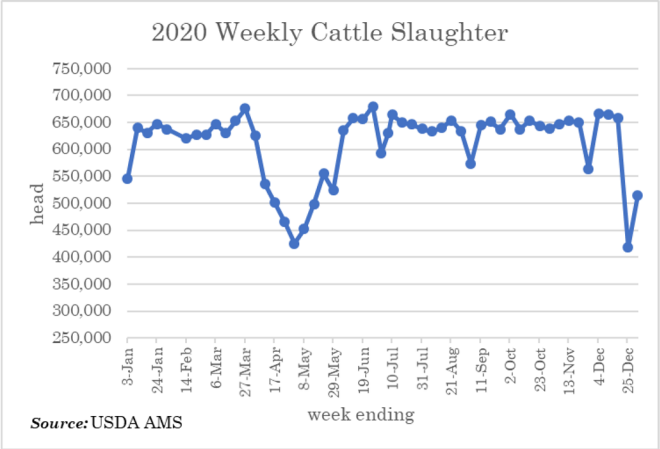
[4] Tonsor, Testimony before the Senate Committee on Agriculture, Nutrition, and Forestry, June 23, 2021



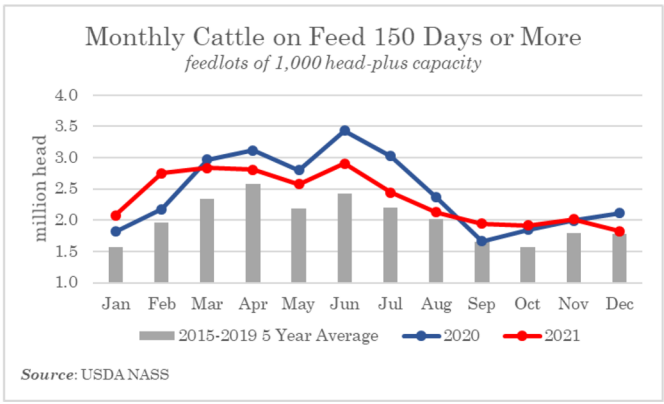
While the beginning-of-the-year cattle inventory in the U.S. hit its peak in 2019, given the time needed to raise a calf to market weight, the supply of feeder cattle in the herd on the first of the year did not peak until January 2020. Total feeder cattle supply began 2020 at the highest level in more than a decade.



Two and a half months later, in March 2020, COVID hit. Slaughter plants were idled beginning in April. By the week ending May 1, 2020, weekly slaughter dropped by 40 percent and didn't recover until late June, but still lagged behind what would have been normal volumes during the season.



This situation – more cattle and constrained ability to process them – created a backlog of cattle inventory already in feed lots. That can be measured by the number of cattle on feed for 150 days or more. These "long fed" cattle make up the supply of cattle closest to being ready to be marketed to packers for slaughter and processed into beef. The backlogged oversupply resulted in low prices for fed cattle, even as consumer and export demand for beef remained high and resulted in increased wholesale beef prices.

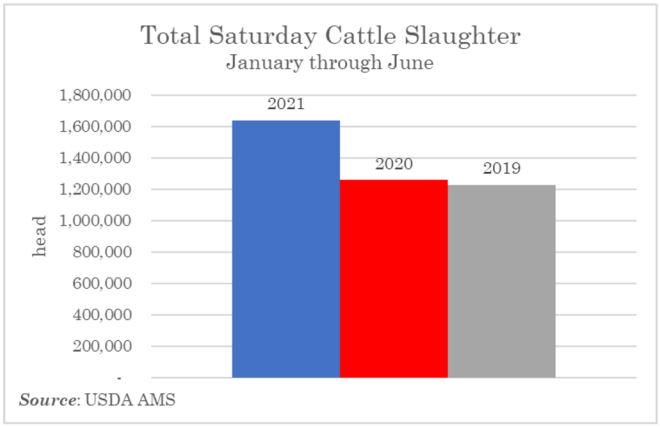


But in the face of the many challenges, the beef packing sector proved resilient. Total beef production in 2020 was a record 27.24 billion pounds, slightly larger than the previous record of 27.22 billion pounds in 2019. The increased volume was based on heavier slaughter weights. As expected, cattle weights increased because of the bottleneck of cattle on feed. Total head of commercial slaughter in 2020 was only down two percent from 2019, despite the dramatic disruption to the cattle harvest during the second quarter of 2020 due to the pandemic.

The supply of cattle remained large in 2021. USDA reports that in 2021, the cattle-on-feed inventory reached the second highest monthly total on record for seven months, each month from February through June, and then again in September and October.

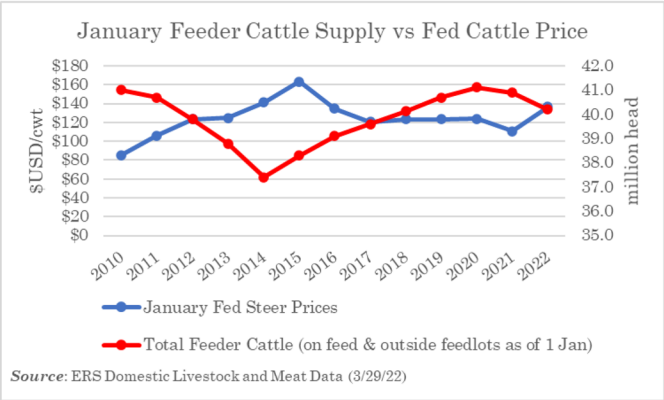
Throughout 2021, even as the comprehensive COVID-19 protections instituted by the meat industry since the spring of 2020 successfully lowered transmission among meatpacking workers and held case rates lower than case rates in the general U.S. population, worker shortages persisted. Through 2021, the Meat Institute regularly heard from member companies having up to 20 percent absenteeism on any day.

However, packers worked their way through the supply of market ready cattle last year, primarily by adding Saturday shifts, especially during the first half of the year. Total Saturday slaughter during January through July 2021 was up 30 percent over 2020 and 33 percent over 2019.



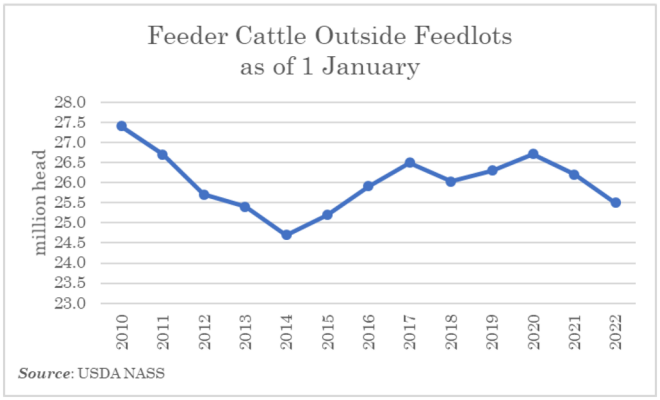
In 2021, beef production and cattle slaughter both were up three percent from 2020, making 2021 another record year for beef production at 28 billion pounds. As slaughter rates recovered, and the industry worked through the backlog of cattle,

supply and demand balance was restored. As a result, in January 2022, fed cattle prices rebounded to the highest January price since 2015, and the third highest January price in the past decade.



For 2022, based on the supply and demand trends for fed cattle, the outlook for cattle prices is bullish across the board. On January 1, 2022, the total number of cattle on feed on all sizes of feedlots was 14.7 million head. That is the same inventory as 2021 and tied for the highest in more than a decade.

However, unlike 2021, the inventory of feeder cattle outside of feedlots to be placed on feed during the year is smaller. Based on the numbers of steers, heifers not intended for cow replacement, and calves under 500 pounds, the beginning of the year supply of feeder cattle outside of feedlots is at its lowest since 2015 when fed cattle prices were at their historical peak.



The beginning of the year supply of feeder cattle outside of feedlots is a reliable indicator of a strong cattle market through 2022 into 2023. Operational capacity at packing plants has increased. In February, cattle slaughter was 2.69 million head, which was a six percent increase over February 2021. Beef production was an all-time record for the month of February.

In addition to seven-year highs for the January average fed cattle price, February, March, and April average fed cattle prices are also at their monthly high since 2015. In short, supply and demand fundamentals continue to drive the cattle and beef markets, as they did throughout the pandemic.

COVID-19 hit as the feeder cattle supply peaked at a point higher than it had been in the previous decade; packers and processors navigated changing markets (far less food service/far more retail), labor shortages, and other supply chain disruptions; all while beef demand boomed. But beef production met the challenge, with record production in 2019, 2020, and 2021.

Today, with the cattle herd contracting, meaning supply is tightening, and operational slaughter capacity increasing, meaning demand is expanding, cattle prices are rising. It is the cattle cycle in action. Policymakers should not intervene and attempt to control the free market fundamentals.

Misplaced Claims about Increasing Consolidation and Concentration.

Members of the Meat Institute – and the entire industry supply chain – benefit from, and depend on, a fair, transparent, and competitive market.

Much of the rhetoric about concentration in the beef packing sector wrongly implies that consolidation is on-going and that packers' market power is becoming more and more concentrated. That is not the case. The four-firm packer concentration ratio for fed cattle slaughter has not changed appreciably in nearly 30 years. According to the Agricultural Marketing Service's (AMS) Packers and Stockyards Division (P&S Division), the four firm concentration ratio was 82 percent in 1994; today it is 85 percent.

The meat packing industry has been, and continues to be, one of the most highly scrutinized industries when it comes to antitrust review. The P&S Division is uniquely charged, by statute, to provide on-going oversight for fair business practices and to ensure competitive markets in the livestock, meat, and poultry industries. Any potential merger or acquisition regulators believe threatens "too much market power" is subject to review by the Justice Department or the Federal Trade Commission. The last proposed merger of two of the "big four" fed cattle slaughterers occurred in 2008 – and it was blocked by the Department of Justice.

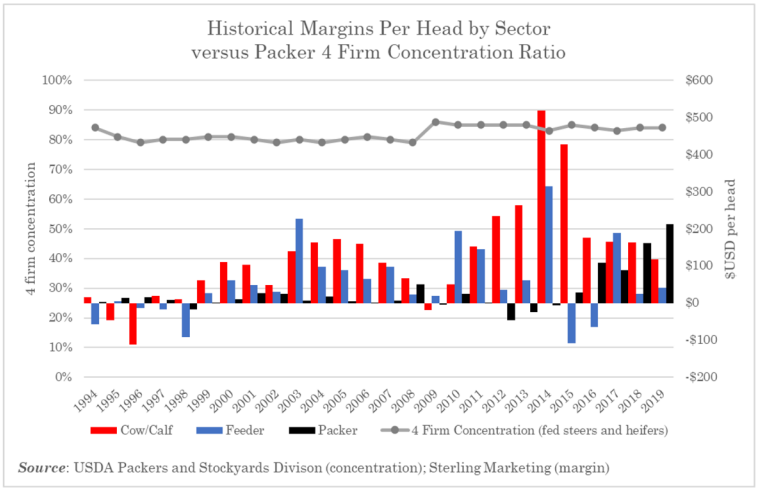
Another clarification is needed. It is frequently claimed that the big four packers control 85 percent of beef production in the U.S. Again, that is not the case and a misleading exaggeration. Fed cattle make up 79 percent of the total cattle slaughter. Cows and other non-fed cattle, make up the balance, primarily slaughtered to be made into hamburger. The lean meat from these animals is a necessary ingredient to be made into America's supply of hamburger produced in combination with the less demanded muscle cuts from the fed cattle. This distinction is important because up to 50 percent of all beef in the U.S. is consumed as hamburger. Even factoring in the non-fed cattle slaughter plants they own; the four largest beef packers represent about 70 percent of total U.S. beef production.

Critics of the industry frequently mistake individual packing plant size with overall industry concentration. The size and location of plants, however, reflect basic economic factors like the cattle supply and the economics of plant operations. Indeed, the cattle supply itself is concentrated. The farms and ranches that produce about half of all beef cattle in the U.S. are in just seven states. Further, more than 70 percent of all fed cattle are in just five states. Economies of scale drive the capacity and production of a packing plant. That is especially true in areas with large numbers of fed cattle. Likewise, cow slaughter plants rely on a supply of cull cows from pasture-based cow-calf farms or dairy farms and are structured based on those factors.

Each packing plant has its own cost structure. Packers bid on cattle based on the supply and demand factors in their own region. Owning a plant in Texas does not change the bottom-line to a company's operation in Iowa or Colorado.

Finally, given that the structure of the beef packing industry is driven by supply and demand factors, the false premise regarding concentration providing undue market power for beef packers must be corrected. The bottom-line is the current level of four-firm concentration has existed for nearly 30 years and it has not ensured packer profitability at the expense of producers.

No sector – cow-calf, feedlot, nor packer – has realized positive margins every year. For example, the four-firm ratio in 2014, when cow-calf and feedlot margins were at record highs, was the same as in 2017 when all three sectors showed positive margins. However, over this more than 25-year timeline, the cow-calf sector suffered negative margins the fewest number of years of the three as the chart below shows.



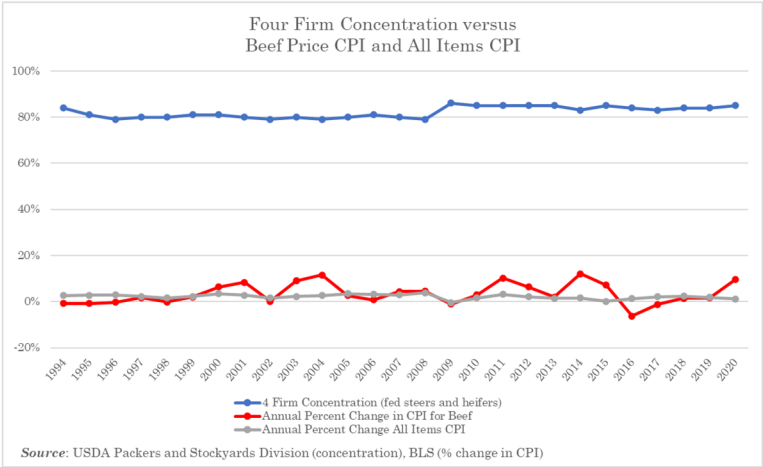
Source: USDA Packers and Stockyards Divison (concentration); Sterling Marketing (margin)

Beef Pricing and Inflation.

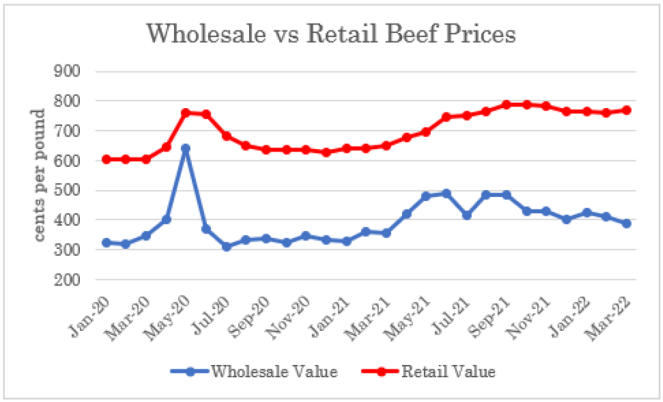
Despite claims by the Biden Administration, meat industry concentration is not the cause of inflation. As Larry Summers, Secretary of the Treasury for President Clinton, the Director of the National Economic Council for President Obama, and Charles W. Eliot Professor and President Emeritus at Harvard University tweeted:



Again, the four firm concentration ratio in beef packing hasn't changed appreciably in nearly three decades, yet meat price inflation has varied from year to year.

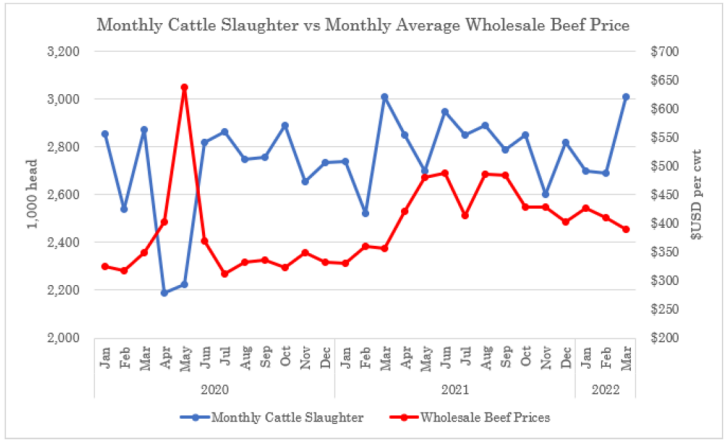


Further, <u>packers do not set retail prices: packers receive wholesale prices</u>. Retailers, and the prices for which they sell beef to consumers, are affected by all the supply chain issues and input costs facing the broader economy, from trucking availability and diesel prices, to warehousing, labor, and product demand, which all affect their segment of the value chain.



Source: USDA Meat Price Spreads

Last year, wholesale beef prices peaked as would be expected during the heavy demand period for beef from Memorial Day to Labor Day. Those higher prices resulted from still limited supply in the face of strong demand. The slower pace of slaughter – for the reasons discussed above – constrained the beef supply even as retailers demanded more beef to meet consumers' demand. With limited production and supply relative to demand, wholesale prices rose during the seasonal high demand period.



Source: USDA Economic Research Service

Per capita beef consumption during 2021 was above 2020 consumption by a half-pound, and more than three-quarters of a pound above per capita consumption during 2019.

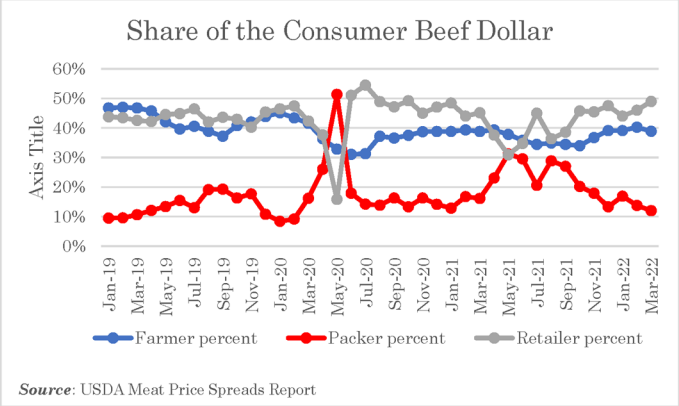
Consumer demand for beef was high based largely on increased consumer income. According to the Bureau of Economic Analysis (BEA), personal expenditures increased in June, July, August, and September 2021, as personal income (from all sources, not just wages and salaries, but including government social benefits including pandemic-related payments) grew – even compared to 2020.

In March 2021, Congress enacted additional COVID relief that included child tax credits, direct payments of $1,400, an increase in nutrition assistance (which supports retail purchases), and extended unemployment benefits. This added $4.232 trillion in government relief payments in addition to that which was paid in 2020. Coupled with economic and job recovery, this added an additional $21 trillion in personal income in 2021, compared to 2020.

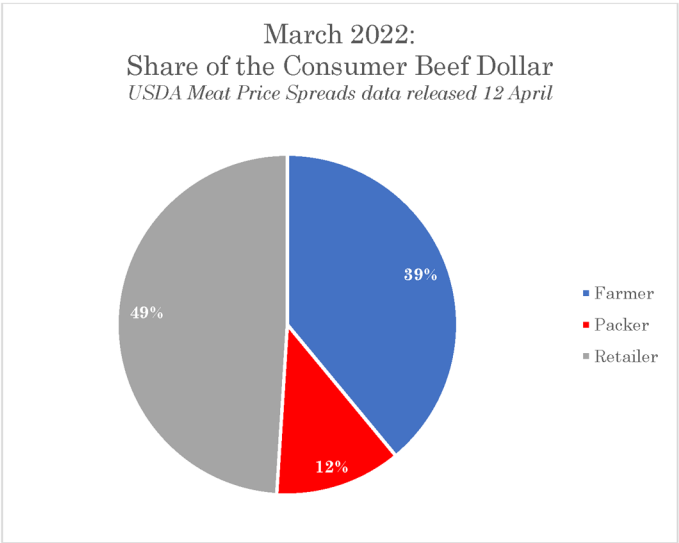
Much of the additional personal income was spent on food, and of that, spending focused on beef. Beef is the protein that is most sensitive to economic changes – consumption increases with higher income and decreases with lower income relative to other proteins. Also, during that time restaurants continued to re-open – increasing demand for wholesale beef. According to BEA spending on food service (restaurant demand) increased through 2021.

The bottom line is neither beef nor industry concentration has driven the record inflation we've experienced. In the calculation of the Consumer Price Index, beef accounts for 0.546%, so even at a 12 month increase of beef prices from January 2021 to January 2022 of 16%, beef added 0.08% inflation to the economy.

Finally, in the 627 months beginning January 1970 through March 2022, packers have received the smallest share of the consumer beef dollar in all months but May 2020, at the peak of the COVID related shutdowns on slaughter which reduced beef supplies.



As of last month, the USDA reported the retail value of Choice beef at $7.685 per pound. The packer share of the retail beef dollar in March was 12 percent.



On January 10, the *Washington Post's* editorial board rightly called out the administration's attempts to blame inflation on businesses:

> President Biden is facing mounting criticism for inflation's rise to its highest level since 1982. Unfortunately, the White House's latest response is to blame greedy businesses.
>
> Economists across the political spectrum are rightly calling out the White House for this foolishness. Even some within the White House are questioning this approach, The Post reports.
>
> Inflation, which was relatively low for years, did not suddenly rise in recent months because businesses decided now was the ideal time to squeeze their customers. What actually happened is that demand soared for many products as the economy recovered. Often, there were not enough products to meet it, thanks to supply chain hiccups and labor shortages, so prices went up. In a surprise to many, consumers kept buying goods such as cars and washing machines even at higher prices.

As explained above, we could add beef to the list of highly demanded products that consumers kept buying at higher prices.

Legislating and Regulating to "Fix the Problem."

There have been several proposals to restructure and regulate the cattle market through significant government intervention. Prominent among the proposals is to require cattle feeders to sell cattle to packers, and packers to buy from feeders, a mandatory minimum volume of fed cattle on a cash, spot market, or "negotiated" basis. These proposals, however, threaten the industry with numerous adverse and unintended consequences.

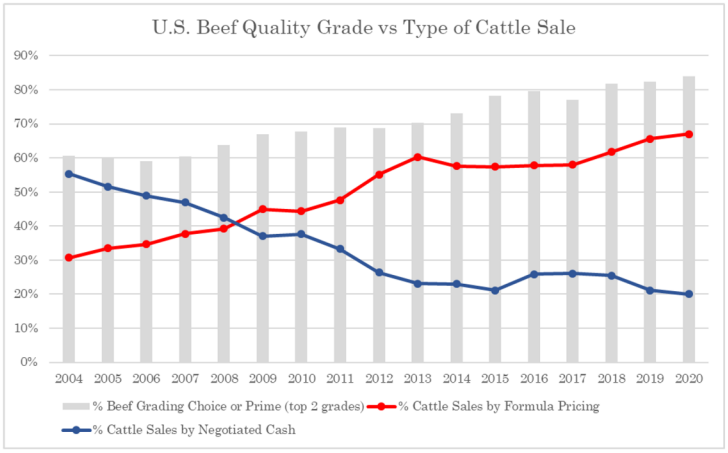
Innovation via formula and contract sales – collectively known as alternative marketing arrangements (AMAs) – originated with cattle feeders attempting to capture value associated with improved quality cattle.

Turning back to Dr. Peel, he describes the advent of AMAs and value-based marketing that shifted packers away from buying cattle on the average:

> Until the 1990s most fed cattle were priced on averages, at the pen level and even entire showlists. Very little quality differentiation meant that high quality cattle were undervalued, and low-quality cattle usually received the average price. Packers had little incentive to differentiate cattle quality since they had to process all the cattle anyway. All that was important to packers was to get the average correct. The lack of quality signals meant that producers had little incentive to improve cattle. The problem was apparent; quality grading

> was low and beef demand was declining. This led to a major push in the industry for "value-based marketing," which aimed to differentiate and value cattle according to quality differences. (p. 32)

The resulting shift towards AMAs and value-based marketing corresponded to an improvement in beef grade quality and has helped drive increased consumer demand.



The success behind value-based marketing and AMAs is based on transmitting market signals about consumers' preferences to producers. The results include increased choices for consumers and premiums and certainty for producers. Yet the black swan events of the past three years have brought calls for change from some producers – even though regulating the terms of fed cattle sales would not have resulted in a fundamental change in the cattle market over that period. The volume of cash market sales is roughly the same today as it was during the record cattle price years of 2014 and 2015.

Again, Dr. Peel:

> Indeed, the emotions, anger and frustration accompanying recent events such as the Holcomb packing plant fire in 2019, the ongoing COVID-19 pandemic beginning in 2020, and the winter storm of February 2021 have fueled demands for an array of potential legislative actions that attempt to jump to a solution without addressing the complex structural and behavioral issues that brought the industry to the current situation. The risk is that these overly

> simplistic solutions will have long term detrimental impacts on cattle producers, the industry, and consumers, and jeopardize the ability of the industry to compete in dynamic global protein markets for a successful future. (p. 2) (emphasis added)

Cattle Price Discovery and Transparency Act

Senators Chuck Grassley and Deb Fischer have introduced the Cattle Price Discovery and Transparency Act. The Grassley-Fischer bill mandates cattle feeders sell and packers buy a certain percentage of cattle on the negotiated, spot market, restricting the use of AMAs. In other words, some cattle producers who want to market their cattle through AMAs would be prohibited from doing so, by government fiat.

The Grassley-Fischer bill requires the Secretary of Agriculture to establish minimum thresholds below which negotiated trade volumes cannot fall. Those minimums would vary by region, cannot be less than the average percent of negotiated sales and negotiated grid sales in each region made during the two-year period between January 1, 2020, and January 1, 2022 – a period when cattle markets were most disrupted by COVID, labor shortages, and supply chain issues.

As expert witnesses have testified, even if 100 percent of fed cattle were sold on the cash market, prices for cattle producers would not have been any higher than what the market allowed in 2020 and the first half of 2021.

Interestingly, under this plan, no region may have a mandatory minimum of negotiated sales that exceeds 50 percent. According to an analysis of the legislation released last week by Texas A&M University's Agriculture and Food Policy Center (AFPC),[5] the upper limit for the mandate in the legislation – 50 percent cash sales – would only affect the Iowa-Minnesota region. Iowa-Minnesota is the only region in which the mandatory minimum would be set below the actual market. The 24-month average of negotiated sales in that region during the 2020-2022 baseline period established in the legislation was 51.3 percent. In short, this bill could reduce – albeit marginally – the percent of cash negotiated sales in Iowa and Minnesota, while forcing dramatic increases elsewhere.

Producers and feeders in Texas, Oklahoma, New Mexico and Kansas, have the most to lose. According to Texas A&M, based on the formula in the legislation, 53 percent of the weekly cattle marketings in 2020-2022 would not meet the mandatory minimum established. In the Texas, Oklahoma and New Mexico region, based on 2020-2022 actual cattle marketings, the proposed minimum would not be met 98 percent of the time. Moreover, the legislation gives the Secretary of

[5] Benavidez, J., Anderson, D., Fischer, B., Outlaw, J., Analysis of S. 4030 – Cattle Price Discovery and Transparency Act of 2022 Briefing Paper 22-04, Texas A&M AFPC, April 2022

Agriculture authority to set the mandatory minimum as high as 50 percent. In that scenario, the Texas A&M briefing paper projects the number of negotiated sales to "explode, increasing from roughly 1.7 million head…to more than 12 million head from 2022 to 2026," which would make the cost estimates "far greater than the estimates in this report."[6]

At the 2022 American Farm Bureau Federation Annual Convention in Atlanta, Dr. Stephen R. Koontz, professor in the Department of Agricultural and Resource Economics at Colorado State University said, "Mandated cash trade is not going to get you better price discovery. It's going to put a $50 cost on calves impacted." A January analysis[7] by Texas A&M of an earlier version of the Grassley Fischer bill concludes:

> Mandated levels of negotiated trade are expected to have negative effects on cattle and calf prices. That is to say that the mandate will result in lower short term fed cattle prices due to the increase in the costs of the feeder-packer cattle sale transaction. Research has shown there is a value to AMAs in the form of lower costs, improved logistics, and reduced risk. Mandating higher levels of negotiated trade will result in higher transaction costs. The higher transaction costs will result in lower cattle and calf prices and higher wholesale and retail beef prices. Lower prices will have the long-term effect of reducing cattle and beef production resulting in higher prices. We would suggest that fed cattle and feeder calf prices would increase back to their long-term expected levels, but not necessarily increase to higher levels. The long run price reversion back to earlier equilibrium levels is driven by the reduction in cattle and beef production. Based on this, one might argue that the industry will be smaller.

That paper analyzed the cost of cash market mandates projected over the next five years at the $50 per head cost calculated by Dr. Koontz. While that specific proposal is no longer on the table, a look at the regional disruption and inequity is apt. The Texas-Oklahoma-New Mexico region, at $50 per head cost, stood to lose $123.9 million, followed by Kansas at $102.9 million. Nebraska would have fared better at "only" $75.3 million in losses. As for Iowa, the aggregate five-year cost was projected at a mere $52,520.

Under the revised Grassley Fischer bill, Texas A&M estimates that in the Five Area region, the mandatory minimum if enacted now, would be expected to subject 2.252 million head of fed cattle to the $50 per head loss under the mandatory negotiated sales minimum. Again, the regional inequity is instructive, as shown in the chart below.

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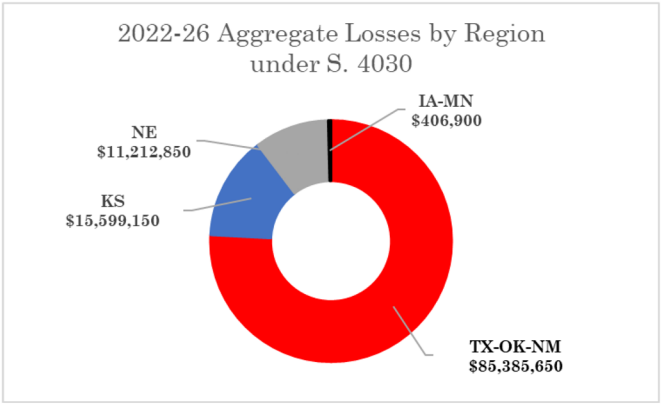
[6] *Ibid.* at p. 6.

[7] Benavidez, J., Anderson, D., Fischer, B., Outlaw, J., Analysis of S. 3229 – Cattle Price Discovery and Transparency Act of 2022 Briefing Paper 22-02, Texas A&M AFPC, January 2022



Based on Texas A&M analysis and estimates

The legislation could have far wider adverse impacts that are yet unknown and currently impossible to analyze. The proposal directs the Secretary to establish five to seven contiguous regions that encompass the entire continental U.S. – from Maine to Arizona, Washington to Florida – that reflect "similar fed cattle purchasing practices." A tall order. This effectively would cause regulatory gerrymandering for no other reason than to impose unnecessary and costly mandatory minimums for negotiated fed cattle sales.

Now, as cattle markets return to balance, is not the time to disrupt the cattle market with a sweeping new government mandate. At the end of 2021, cattle prices were at a five-year high. In the first quarter of 2022, cattle prices were at seven-year highs. And, as discussed below, USDA is drafting proposed regulatory changes under the Packers and Stockyards Act.

Proposals to implement a mandatory minimum volume of negotiated cash sales go far beyond the purported objective of market transparency and price discovery and instead would directly regulate the terms of sale in a private transaction between two businesses, the producers and packers. A cash market mandate would represent the beginning of the Federal government regulating more – or all – terms of sale in the cattle market. Such behavior should be concerning to producers given the number of transactions among the segments of the cattle production supply chain described earlier.

Further, there have been suggestions Congress should amend the confidentiality provisions in the Agricultural Marketing Act applicable to Livestock Mandatory Reporting (LMR). One bill has been introduced that would prohibit USDA from

withholding any "information, statistics, and documents." This concept has data privacy and antitrust implications for both packers and feeders. USDA has examined the LMR confidentiality requirements and determined relaxing the requirements would not ensure anonymity among the market participants. Producers are not the only market participants using the published LMR data: packers and others constantly analyze the data, and any loosening of the confidentiality requirements could provide some market participants full view of their competitors' actions in the market.

By design, a mandate for packers to meet a minimum volume of negotiated cash sales would limit a producer's ability to use other, preferred types of cattle procurement and marketing tools, including forward contracts and various formula-based purchases that comprise the majority of transactions for market-ready cattle. These pricing methods, combined and balanced with the negotiated cash market pricing, have served U.S. cattle producers, the beef industry, and consumers well over the past two decades by:

- Providing producers and cattle feeders with an effective risk management tool;
- Reducing marketing costs for cattle feeders and producers;
- Improving efficiency though the supply chain;
- Improving the quality of U.S. beef;
- Meeting U.S. consumer demand and building trust by incentivizing not only quality, but the safety, sustainability, and consistency of U.S. beef; and
- Enhancing the competitiveness of U.S. beef in global export markets.

The Grassley-Fischer bill contains a Sense of the Senate that begins:

> SENSE OF THE SENATE.—It is the sense of the Senate that—
> (1) all participants in the fed cattle market have a responsibility to contribute to sufficient levels of negotiated trade of fed cattle in all cattle feeding regions in order to achieve competitive bidding and maximum transparency in all relevant markets and robust price discovery for the benefit of all market participants… (emphasis added)

Despite the rhetoric, the latest version of the Grassley-Fischer cash market mandate targets the mandate so it only applies to the largest beef packers. The reduction in the scope of the mandate is illuminating. On one hand, it confirms the benefits and importance of AMAs for producers, packers, and consumers: if the cash market provided the same benefits as AMAs, there would have been no need scale-back the mandate.

But applying the cash market mandate to only the largest packers reveals the proposed mandate for what it is: a punitive tool. Under the latest version of the

bill, if a beef packer gets too large, they will be forced to buy a certain percentage of cattle on the cash market. But per the analysis discussed above, it will be the producers supplying these packers who will pay much of the price. Gone is the illusion that the cash market is somehow more virtuous than other means of marketing cattle; gone is the argument that the cash market is necessary for transparency and price discovery. Instead, the cash market mandate is just that: a government mandate designed to punish the largest companies and their suppliers. In this sense, the mandate is an antitrust tool that could be used in any industry. If a company gets too large, it will be punished with a government mandate directing how the company can purchase inputs. Such a government mandate should elicit opposition from anyone interested in protecting the free market.

The Grassley-Fischer cash mandate is rooted in the belief that a government-managed market is preferable to the free market; in the belief that legislators know the best way for cattle producers to market cattle; in the belief that when black swan events occur, the government, with an inflexible, prescriptive mandate, will be better situated to respond than the resilient free market.

Ultimately, all cattle are purchased by a packer. The packer will buy cattle by whichever method producers want to market them. If cattle marketing become less efficient and transaction costs go up, the packer will spread those costs elsewhere. As Dr. Peel noted, when cattle were purchased on the average, high quality cattle were undervalued, and low-quality cattle were overvalued, receiving the average price. Packers have little incentive to differentiate cattle quality since they have to process all the cattle anyway. All that will be important to packers is to get the average right to generate a margin.

Market Transparency

Despite claims to the contrary, there is robust price discovery in the cattle and beef markets.

Congress established and USDA administers the Livestock Mandatory Reporting Act (LMR) program to facilitate open, transparent price discovery and provide all market participants, both large and small, with comparable levels of market information for slaughter cattle and beef, and other species. Under LMR, packers must report to AMS daily the prices they pay to procure cattle, and other information, including slaughter data for cattle harvested during a specified time period and with net prices, actual weights, dressing percentages, percent of beef grading Choice, and price ranges, and then AMS publishes the anonymized data.

AMS publishes 24 daily and 20 weekly cattle reports each week. Weekly reports start Monday afternoon and end the next Monday morning. These reports cover time periods, regions, and activities and the data include actual cattle prices.

Further, packers report all original sale beef transactions in both volume and price through the Daily Boxed Beef Report. This data is reported twice daily, at 11:00 a.m. and at 3:00 p.m. Central Time. The morning report covers market activity since 1:30 p.m. of the prior business day until 9:30 a.m. of the current business day. The afternoon report is cumulative, including all market activity in the morning plus all additional transactions between 9:30 a.m. and 1:30 p.m., and is on the USDA DataMart website. The boxed beef report covers both individual beef item sales and beef cutout values and current volumes, both of which are derived from the individual beef item sales data.

Few if any other industries have this magnitude of transparency via mandatory reporting of detailed price and product data on an on-going, daily basis, published for all other market participants – including up-stream sellers, downstream buyers, and direct competitors – to view, analyze, and use strategically.

Meat and Poultry Special Investigator Act

The Meat and Poultry Special Investigator Act duplicates existing regulatory enforcement authority and is unnecessary.

The Agricultural Marketing Service's P&S Division currently investigates allegations of impropriety and brings administrative cases and levies fines when warranted. Under certain circumstances, the P&S Division takes civil action working through the Department of Justice (DOJ). Penalties for violations of the Packers and Stockyards Act (P&S Act) can include civil penalties, permanent injunctions, fines, and even jail sentences.

The bill, however, would create a new office led by a political appointee with the same responsibilities for enforcing the same authority, the P&S Act, as the current P&S Division has. A duplicative regulatory office is wasteful and unnecessary, and a political appointee leading a regulatory enforcement office such as this would have to respond to the political whims of the administration.

Just this year, USDA established a complaint portal for producers to use to submit allegations of P&S Act violations to USDA and DOJ. The new tool provides producers and the P&S Division another resource for submitting, evaluating, and, if necessary, prosecuting violations. If the P&S Division staff are not doing their jobs, there are other ways to address it than by adding a political appointee into the regulatory and enforcement mix.

USDA is promulgating new proposed rules under the P&S Act, discussed further below, which are likely to have far reaching, unintended consequences. Establishing a politically appointed Special Investigator at the same time is a regulatory time-bomb. The Special Investigator (and staff) would feel emboldened

and obligated to bring as many cases as possible, whether warranted or not, to test the legal limits of the new rules. The resulting legal uncertainty and chaos will accelerate changes in livestock and poultry marketing that will likely add cost to producers and packers and up-end the supply chain.

The Special Investigator Act is a solution in search of a problem, and would result in a politically-driven, substantial expansion of USDA's regulatory regime.

Proposed Regulatory Actions by USDA Under the Packers and Stockyards Act will Adversely Affect Producers and Packers.

In June 2021, USDA announced plans to propose rules to "strengthen enforcement" of the Packers and Stockyards Act (PSA).[8] The expected proposed regulations would be problematic for several reasons, including their impact on livestock producers' options to market their cattle, as described.

The concepts expressed in USDA's announcement are not new and were considered, and rejected, in the past. When proposed, they will conflict with legal precedent in no less than eight federal appellate circuits, and will hurt livestock producers, packers, and consumers.

For example, USDA plans on re-proposing a rule to clarify that a plaintiff need not demonstrate harm to competition to bring and prevail in Packers and Stockyards Act litigation. Additionally, USDA indicates that it intends to "propose a new rule that will provide greater clarity to strengthen enforcement of unfair and deceptive practices, undue preferences, and unjust prejudices."[9] It is beyond dispute that eliminating the need for a plaintiff to show harm to competition, or likely harm to competition, will encourage litigation, most of it likely specious litigation. That threat will severely limit or terminate AMAs with all the adverse unintended consequences discussed.

One unintended consequence so far overlooked could come in the form of compromising the livestock and meat industry's significant gains and ambitious goals for improving sustainability.

Today, the industry produces more than twice as much beef with roughly the same number of cattle as in 1959, and 18 percent more beef than when the U.S. cattle herd hit its largest size in 1975. Farmers and ranchers produce beef using 33% less land, 12% less water, and with a 16% smaller carbon footprint in 2007 compared to 1977.[10] That is an astounding sustainability success story.

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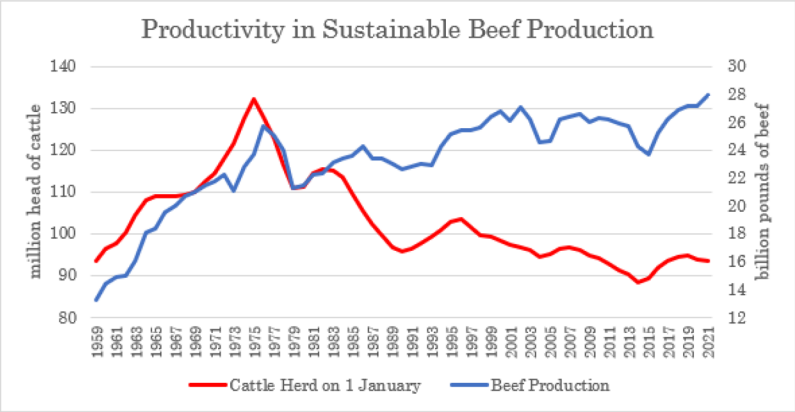
[8] https://www.usda.gov/media/press-releases/2021/06/11/usda-begin-work-strengthen-enforcement-packers-and-stockyards-act

[9] Ibid

[10] Neumeier and Mitloehner doi:10.2527/af.2013-0022



The U.S. meat industry cannot continue to build on this remarkable sustainable productivity growth and meet consumer expectations if the government restricts interactions between packers and producers. By design, USDA's proposed rules will discourage the use of AMAs – the very tools that have improved efficiency, productivity, and risk management over the past two decades and allowed the sector to meet consumer expectations for increased beef quality and sustainably produced cattle and beef.

As multiple agricultural economists[11] and cattle producers[12] have explained, AMAs increase market efficiency by transmitting market signals about consumers' preferences to producers. Restaurants, retailers, food service customers, and investors are moving rapidly to align their product and financial portfolios with environmental, social and corporate governance goals. This realignment – driven by consumers – will not be achieved by eliminating value-based marketing and turning back the clock to the days of commodity cattle purchased on the average.

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[11] See the following: The U.S. Beef Supply Chain: Issues and Challenges, Proceedings of a Workshop on Cattle Markets, Agriculture and Food Policy Center, Texas A&M University, 2021, cattle.pdf (tamu.edu); Anderson, et al, Univ. of Arkansas, 2022, https://cpb-us-e1.wpmucdn.com/wordpressua.uark.edu/dist/6/907/files/2022/01/CPDTA-analysis-01.18.22.pdf; Koontz, S., Costs and Benefits of Mandatory Negotiated Cash Participation in Fed Cattle Markets, 2022; Glynn Tonsor, Ph.D., Professor, Department of Agricultural Economics, Kansas State University, testimony before the Senate Agriculture Committee, June 23, 2021, https://www.agriculture.senate.gov/imo/media/doc/Testimony_Tonsor%2006.23.211.pdf

[12] See Gardiner, Testimony before the Senate Committee on Agriculture, Nutrition, and Forestry, June 23, 2021.

In his testimony before the House Agriculture Committee's Livestock and Foreign Agriculture Subcommittee, Dr. Jayson Lusk stated:

> [S]trengthening of consumer demand for beef over the past several decades has occurred over a period in which there was increased use of formula pricing that rewarded quality improvements. Eroding the ability of consumers, retailers, and packers to incentivize quality through formulas and vertical coordination may have detrimental impacts on demand.[13]

Conclusion

The discussion above demonstrates the complexity of the cattle and beef markets that defy overly simplistic policy prescriptions. Market fundamentals drive the cattle and beef markets, and what we saw before and during the course of the pandemic was to be expected. Indeed, cattle and beef markets were not the only sectors of the economy adversely impacted in the past two years. Congress and USDA should not make radical changes to the cattle and beef markets: such changes will up-end the markets, increase costs for the entire supply chain, including for consumers during this time of record inflation, and bring unintended consequences.

The North American Meat Institute is prepared to discuss these issues and work with the Committee on the issues facing the industry. Thank you for the opportunity to provide this testimony.

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[13] Jayson Lusk, Ph.D., Distinguished Professor and Head, Department of Economics, Perdue University, testimony before the House Agriculture Subcommittee on Livestock and Foreign Agriculture, July 28, 2021, https://docs.house.gov/meetings/AG/AG29/20210728/113973/HHRG-117-AG29-Wstate-LuskJ-20210728.pdf



NATIONAL CATTLEMEN'S BEEF ASSOCIATION
CENTER FOR PUBLIC POLICY

April 25, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Committee on Agriculture, Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture, Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Boozman:

The National Cattlemen's Beef Association (NCBA) writes today in strong opposition to S. 4030, the *Cattle Price Discovery and Transparency Act.*

The cattle industry is home to some of the most complex market structures in the world, with nearly infinite ways to differentiate livestock, access unique value chains, and capture premiums. No two animals are exactly alike, no two cattle operations are exactly alike, and thus no two marketing agreements are exactly alike. Producers choose trading methods based upon what works for their distinct business models, allowing them to better manage risk and realize returns on investments made in response to ever-evolving consumer demand trends. For some, the negotiated cash market is the best fit. For others, maintaining profitability is directly tied to their ability to access alternative marketing arrangements (AMAs) like formulas and forward contracts. S. 4030 would arbitrarily deny countless producers the economic freedom to choose between these important tools.

Proponents of this legislation often note the bill places mandates on meatpacker purchases of cattle, and mistakenly conclude that cattle producers will be minimally impacted as a result. Every transaction requires both a willing buyer and a willing seller. If meatpackers have purchased all the cattle offered on the negotiated market in a covered period, and still have not achieved their obligatory thresholds, producers who utilize AMAs would be forced to make a difficult decision: hold onto finished cattle until the next covered period—which would increase costs and erode net profit—or sell cattle in a manner which may not meet the needs of their existing business model.

NCBA has taken the issue of price discovery very seriously. In July of 2020, our producer membership, through NCBA's century-old grassroots policymaking process, instructed us to design a program to improve price discovery on a voluntary basis. Throughout implementation, considerable increases in negotiated trade volumes were achieved, particularly in the southern plains regions of Texas-Oklahoma-New Mexico and Kansas. This exercise proved that cattle producers are willing to, and capable of, addressing an industry problem without government intervention. In February of this year, our members once again used the policy process to reaffirm their opposition to government meddling in the cattle market. Specifically, they directed NCBA to "oppose any mandate on cash trade volumes for cattle or any other legislative or regulatory policies that would limit the methods producers utilize to market cattle."

The same policy process used to establish NCBA's opposition to trade mandates was used to voice our members' support for concepts like a cattle contract library, expedited carcass weight reporting, daily formula base price reporting, and 14-day delivery, but cattle producers from across the country were resoundingly clear: NCBA cannot support these proposals so long as they come with a market-altering government mandate.

NCBA stands ready to work with our friends on Capitol Hill, in both chambers and across party lines, to bring cattle producers the tools and transparency which they are asking for. We urge your opposition to S. 4030, the *Cattle Price Discovery and Transparency Act*, and invite you to contact our Center for Public Policy with any questions or concerns.

Sincerely,

Ethan Lane
Vice President, Government Affairs
National Cattlemen's Beef Association

1275 Pennsylvania Ave NW Suite 801
Washington, D.C. 20004 | policy.ncba.org | 202.347.0228

MAGNUM FEEDYARD CO. LLC

April 25, 2022

The Honorable Michael Bennet
261 Russell Senate Office Building
Washington, D.C. 20510

Dear Senator Bennet:

I write today to share Magnum Feedyard Co. LLC's opposition to S. 4030, the Cattle Market Price Discovery and Transparency Act.

Magnum Feedyard is a 35,000 head capacity feedyard located in one location at Wiggins, Co and has been in business since 1993.

The U.S. beef cattle industry is comprised of multiple segments with the most diverse operations of all sizes, backgrounds, and in all 50 states. Just as there is not a "one-size-fits-all" approach to raising and feeding cattle, there also is not a single, uniform method of marketing livestock. At Magnum Feedyard the freedom to market our cattle in the manner that best suits our business, without government interference, is paramount. S. 4030 would undo decades of progress in producing the high quality, safe and affordable beef products families desire across the country and around the globe. The industry has established a value-based marketing system and this legislation will negate much of the progress that has been made by jeopardizing many of the confidential business-to-business contracts that have been established.

Volatility is nothing new in cattle markets. Currently, black swan events, including the fire at the beef processing plant in Holcomb, KS, the Covid-19 pandemic, the drought in the West, and the war in Ukraine have been compounded with record-breaking cattle on feed numbers and limited packing capacity, due to labor shortages from Covid effects/infections and restrictions and lack of agriculture immigration reform, among other factors. As a result, the industry was forced to change operational protocols, in a tight time frame, due to a situation where the supply of cattle that needed to be harvested far exceeded the amount of available shackle space. Thus, cattle producers have been forced to navigate a roller-coaster marketplace with decreased live cattle prices and record high packer margins and boxed beef prices. These market shocks were felt across the entire beef value chain; from our small cow/calf producers to our consumers.

Additionally, the events have restricted the ability of the packers to harvest cattle and have weakened the negotiating power of the cattlemen in selling finished cattle. However, this has been more of a market condition issue versus a price transparency issue. Therefore, these events have distorted cash sales and the use of alternative marketing arrangements (AMAs). Limiting access to AMAs will reduce the amount of gross dollars available in the cattle production cycle by approximately $1.3 billion annually.[1] Moreover, AMAs have increased the percentage of cattle grading choice 35 percent since 2005. Finally, the

[1] "Total steer and heifer (fed) slaughter was 25.972 million head in 2021 with steer slaughter at 16.145 million head." (Https://www.drgevers.co[illegible]ay/beef-productio y/beef [illegible]ds-maintain-cattle .nven[illegible] [illegible]t?context=Total%20steer%2[illegible] %20heifer%20(fed,the%2[illegible] d%20percentage%20slaughter [illegible]2004) multiplied by $50/head (https://agfax.com/202[illegible] [illegible]/livestock-cattle-packers[illegible] -reinstated-cash-trade-dtn/).

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MAGNUM FEEDYARD CO, LLC

economic impact coupled with the highest beef quality in the past 50 years, now is *not* the time for a wholesale change to the way cattle are marketed due to a short-term swing in the dynamics of the marketplace.

Magnum Feedyard understands and supports the need for robust price discovery (which is the process of determining the price of an asset in the marketplace) in the cattle market. S. 4030 contains two concerning provisions: (1) the establishment of regional mandatory cash trade minimums, and (2) the creation of a cattle contract library. Establishing regional mandatory cash trade minimums could result in unintended consequences for our feedyard located in Wiggins, Colorado, jeopardizing our business model, and hurting our employees and their families. There are already voluntary, industry-driven efforts that are being taken today to ensure the price discovery mechanisms in the cattle industry are sufficient.

As you may know, AMS currently publishes 24 daily and 20 weekly cattle reports that provide a wide range of information. The cattle contract library established by S. 4020 will duplicate some existing USDA work, wasting taxpayer dollars. Furthermore, the bill will also provide market information which will be utilized by the beef processing and retail sectors of the industry to potentially gain greater market leverage. The size, financial resources, and capabilities of this sector allows them to analyze the data provided by the library. In addition, USDA is currently implementing a pilot cattle contract library. A permanent cattle contract library should not be established before the current pilot program has been reviewed by Congress to ensure no harm comes to individual producers or the industry. Providing confidential, business-to-business information to the most sophisticated segment of the cattle industry likely shifts additional market leverage to the segment of the beef supply chain that holds all the market leverage today: the beef processing and retail sectors.

Consumer demand for beef today is strong, but this has not always been the case. After decades of declining beef demand, the beef industry changed direction in the late 1990s. A conscious effort was made by beef producers through the entire industry to listen to consumer demands related to product quality, food safety, and product offering diversity. Much of this transition from a generic, commodity beef product was facilitated through value discovery – through the increased use of confidential AMAs. These voluntary, business-to-business arrangements allow for premiums to be earned for producing a specific type of product under agreed to terms. If the terms of these agreements are not met, discounts are applied. The result of these innovative AMAs has been a higher quality, more consistent beef product, which, in turn, has led to the highest levels of beef demand in the past 30 years.

Restricting free market principles and limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products. Finally, Congress should not be in the business of overreaching and injecting artificial market signals, either through regional mandatory cash minimums or publishing information in a cattle contract library, that provides, in perpetuity, more leverage to one segment of the industry at the expense of all others and the end consumer.

Legislative action will result in unintended consequences that will have far-reaching and long-lasting negative effects on the cattle industry. First to the commercial feedlot industry, which will then be pushed down to small farmer-feeders and cow/calf producers. Limiting the use of AMAs, as this legislation would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

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would ultimately do, would negate the market signals from consumers and move the beef industry back toward a commodity market with fewer incentives to produce higher quality cattle and beef products.

Magnum Feedyard appreciates your willingness to consider our concerns and urge you to oppose S.4030, the Cattle Price Discovery and Transparency Act. Producing high-quality, safe and affordable beef that is raised in a transparent and sustainable manner remains front of mind. We stand ready to be a resource for you and your staff as the Senate considers this, and other legislation, related to marketing fed cattle.

Sincerely,

Steven P. Gabel
President
Magnum Feedyard Co. LLC
(970) 483-7339
spgabel@magnumfeedyard.com

cc: Chairwoman Debbie Stabenow
Ranking Member John Boozman

STRASSBURGER

NEW YORK 1865

April 25, 2022

The Honorable Debbie Stabenow
Chairwoman
Senate Committee on Agriculture,
Nutrition & Forestry
328A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Ranking Member
Senate Committee on Agriculture,
Nutrition & Forestry
328A Russell Senate Office Building
Washington, DC 20510

Dear Chairwoman Stabenow and Ranking Member Boozman:

I write to express my strong opposition to S. 4030, the Cattle Price Discovery and Transparency Act. While enhancing transparency and accountability in the U.S. cattle market is a laudable goal, the provision requiring beef packers to purchase a government-mandated amount of cattle through "approved pricing mechanisms" will harm stakeholders across the entire beef supply chain and could potentially upend my own family-owned and operated business.

My name is Suzanne Strassburger. Together with my sister, Andrea, we represent the fifth generation to carry on our family business – a meat purveying company specializing in supplying beef to the largest metropolitan area in the United States. The Strassburger legacy began in 1865 when my great-grandfather, Harry Strassburger, founded the business, and we have supplied Manhattan's finest steakhouses with top-quality steak for over 150 years. I am also proud to serve as the first female CEO of Strassburger Steaks. I have worked hard to innovate and expand the company's reach in providing high-quality proteins to U.S. consumers. Today, our products can be found in restaurants throughout the tri-state area, are sold direct-to-consumer online, and available at wholesale to retailers all along the east coast. In 2011, I founded Suzy Sirloin, a branded product line of local and grass-fed beef options, organic pork, natural lamb, and veal.

Over the last century and a half, we have built a sustainable small business by responding directly to our consumer's demands—no matter what form that takes. Our ability to fulfill our customers' requests is dependent upon availability from the packers, and what American cattle producers can supply. If enacted, this legislation would turn back the clock to a time when beef quality was lacking, and consumer demand was at all-time lows. Let me be clear, purveyors are not ranchers or packers. However, our business model is susceptible to the same market volatilities which plague other segments of the beef supply chain. For example, wholesale meat prices vary daily depending on weather, time of year, cost of feed, foreign demand, and other factors. Strassburger Steaks sells specialty products, and the majority of our meats are sourced from large packers.

Meat purveyors and cattle producers are uniquely intertwined in a way that most people, even within our own industry, cannot comprehend. As beef sellers, we are the individuals who interface most closely with consumers in the wholesale, retail, and foodservice sectors. The information we obtain through our interactions with the beef-eating public is sent back to producers through a complex system of price signals. The success behind the myriad of alternative marketing arrangements (innovative agreements by which producers sell cattle to packers) is based on communicating the information we collect as

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NEW YORK 1865

purveyors back to the individuals who produce our products. These arrangements allow us to meet our customers demand and empowers cattle farmers to maintain viability by better responding to consumer needs. The result: more choices for consumers and a higher return to cattle producers. Reducing access to these pricing tools will result in higher prices and fewer options for beef consumers, which threatens my ability to compete with larger suppliers. This is especially true in the greater New York area my company services, where all-natural, hormone-free, and grass-fed products are the top selling items.

Our company prides itself on our partnership with America's cattle industry. We want nothing but the best for the people who work nonstop to supply us with a delicious and nutritious product we can share with our fellow New Yorkers. S. 4030 would greatly erode our access to the quality products the Strassburger name has come to represent, and if enacted would dramatically undermine our competitive edge against larger, corporate suppliers. I urge the members of the Senate Agriculture Committee to oppose the Cattle Price Discovery and Transparency Act.

Sincerely,

Suzanne Strassburger

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Agricultural and Food Policy Center
Texas A&M University

April 2022

Analysis of S. 4030 – Cattle Price Discovery and Transparency Act of 2022



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Analysis of S. 4030 – Cattle Price Discovery and Transparency Act of 2022

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Introduction

On April 7, 2022, Sens. Deb Fischer (R-Neb.), Chuck Grassley (R-Iowa), Jon Tester (D-Mont.), and Ron Wyden (D-Ore.) announced a compromise cattle market proposal that was subsequently introduced as S. 4030, the *Cattle Price Discovery and Transparency Act of 2022.* This latest bill modifies an earlier version that was introduced in November 2021 as S. 3229. Table 1 highlights the key differences between the two bills.

This latest bill proposes to establish a regional mandatory minimum threshold for the percentage of cattle purchased under negotiated grid or negotiated pricing terms, to establish five to seven contiguous regions encompassing the continental United States for fed cattle reporting purposes, to establish a contract library, and to expand and change certain reporting requirements and data collection for cattle pricing and slaughter.

Senator John Boozman, Ranking Member, Senate Committee on Agriculture, Nutrition, and Forestry, asked the Agricultural and Food Policy Center (AFPC) to examine the impact of S. 4030 on the various segments of the beef and cattle supply chain.

Expected Impact of Negotiated Trade Volume Mandates on Forecast Negotiated Trade Volume

S. 4030 requires the Secretary of Agriculture (the Secretary) to establish minimum thresholds below which negotiated trade volumes cannot fall, allowing for public input and the review and modification of those thresholds. Section 259 establishes bounds within which the Secretary must establish minimum negotiated volume thresholds. The bounds dictate that:

- No regional minimum can be less than the average percentage of negotiated purchases and negotiated grid purchases made in a region between January 1, 2020, and January 1, 2022, and
- No regional mandatory minimum can exceed 50 percent of total weekly or total monthly trade.

In practice, had the bill been enacted on January 1, 2022, the minimum bounds of required negotiated trade are presented in Table 2. The methodology utilized in this analysis is discussed at length in *Analysis of S. 3229 – Cattle Price Discovery and Transparency Act of 2021* by the Agricultural & Food Policy Center.[1] As with that earlier report, this analysis excludes Colorado from the typical 5-area cattle region due to lack of consistent data.

Importantly, S. 4030 calls for the Secretary to establish five to seven "covered regions" that encompass the entire continental U.S. and that reflect similar fed cattle purchasing practices. Because the publicly avail-

[1] https://afpc.tamu.edu/research/publications/files/712/BP-22-Cattle-Market-Transparency.pdf

Table 1. Key Differences in S. 3229 and S. 4030.

	S. 3229	S. 4030
Data Series to Develop Initial Mandatory Minimum Negotiated Trade Thresholds	July 2020 - December 2021	January 2020 - December 2021
Initial Mandatory Minimum Negotiated Trade Threshold – Maximum	45%	50%
Subjects all packers responsible for processing more than 5% of fed cattle to participate in the mandatory minimum negotiated trade rules	No	Yes
Establishes a cattle contract library	Yes	Yes
Requires Secretary of Agriculture to Establish 5-7 regions encompassing the continental U.S.	No	Yes
Mandates annual reporting of cutout yield	No	Yes

Table 2. S. 4030 Negotiated Volume Mandatory Minimum Requirements Utilizing January 1, 2020 – January 1, 2022 Data.

	Texas-Oklahoma-New Mexico	Kansas	Nebraska	Iowa-Minnesota
24-month Average Weekly Negotiated Volume	11,775	21,704	32,643	25,503
24-month Average Weekly Total Volume	94,762	105,828	84,912	49,692
24-month Average Weekly Negotiated Volume as Percent of Total Volume	12.4%	20.5%	38.4%	51.3%
Minimum Weekly Negotiated Trade as Percent of Total Trade Allowed Under S. 4030	12.4%	20.5%	38.4%	50.0%*
* This value represents the maximum initial mandatory minimum negotiated volume requirements set forth in Sec. 259.				

Table 3. Difference in Weekly Forecast Negotiated Volume and Weekly Policy-Imposed Negotiated Volume from Table 2, Forecast of 2022-2026.

	Average Weekly Expected Deficit, Negotiated Volume	Maximum Expected Deficit, Negotiated Volume	Expected Weeks Negotiated Volume Deficit Compared to S. 4030 Requirement	Total Expected Additional Negotiated Sales as Result of S. 4030, '22-'26
	Head	*Head*	*Percent*	*Head*
Texas-Oklahoma-New Mexico	6,543	13,308	98%	1,707,713
Kansas	1,195	7,937	53%	311,983
Nebraska	859	6,442	42%	224,257
Iowa-Minnesota	31	2,074	3%	8,138

able data on fed cattle purchases outside of the current five-area region is largely presented in aggregate, we cannot reliably estimate the impacts of S. 4030 outside of the five-area region. Consequently, in this analysis, we again analyze the expected change in negotiated volumes as a result of the mandate in four of USDA's five major reporting regions which include Texas-Oklahoma-New Mexico, Kansas, Nebraska, and Iowa-Minnesota (as noted above, Colorado data is not included due to inconsistency in reporting). As a result, the following analysis should only be viewed as potential impacts on the included states, with the understanding that results could vary widely depending on the Secretary's designation of different regions.

Figures 1-4 show the expected unrestricted negotiated trade plotted against the negotiated trade minimums compelled by S. 4030 through December 2026, a 5-year outlook. Each figure represents one of four cattle sales regions, and each figure shows two different data series. The first series, plotted with a solid blue line, is a forecast of expected weekly negotiated volume as a percent of total weekly volume with no restrictions imposed. The second series, plotted with a dashed yellow line, is the minimum allowable threshold of weekly negotiated volume as a percent of total sales under S. 4030, had the bill in force on January 1, 2022. When the blue line falls below the yellow line, the difference in the two lines represents the percent by which unrestricted negotiated trade falls short of the minimum thresholds established by S. 4030.

The bounds for a mandatory minimum negotiated threshold set by S. 4030 change the expected deficits and expected costs of the bill when compared to S. 3229. Expanding the window utilized to establish the initial thresholds (from 18 months in S. 3229 to 24 months in S. 4030) incorporates data from an additional six months in which negotiated trade volumes as a percentage were lower in all regions. Incorporating that new data into the average utilized to establish parameters for an initial mandatory minimum requirement lowers the bound significantly for Texas-Oklahoma-New Mexico and Kansas, reducing the difference in expected "natural" negotiated trade and the minimum thresholds set by S. 4030 (Table 3). When compared to S. 3229, the number of additional head that would need to be marketed via negotiated sales would be lower under S. 4030 (2.3 million versus approximately 6 million).

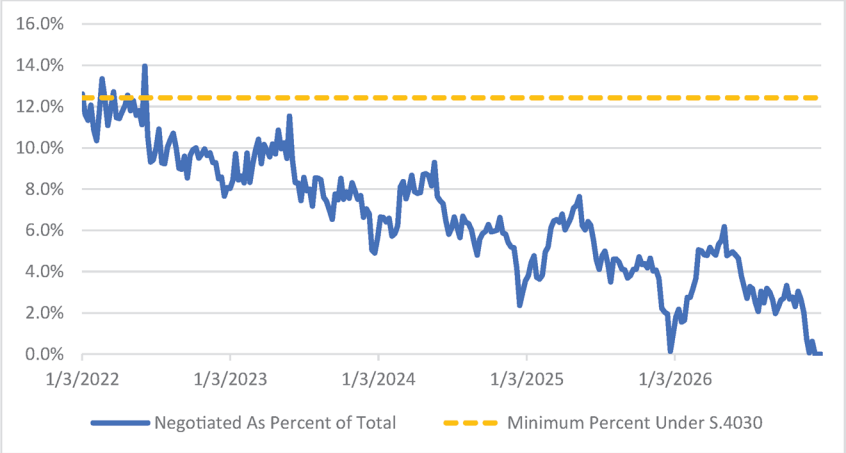

Figure 1. Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Texas-Oklahoma-New Mexico, Forecast of 2022-2026.

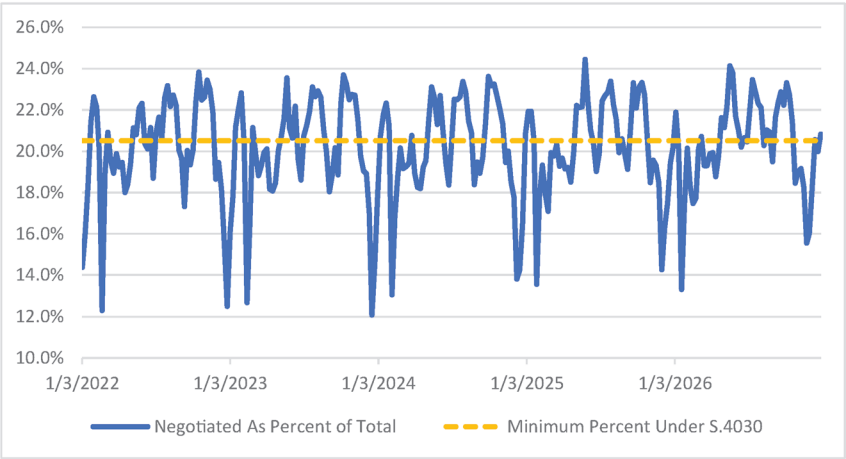

Figure 2. Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Kansas, Forecast of 2022-2026.

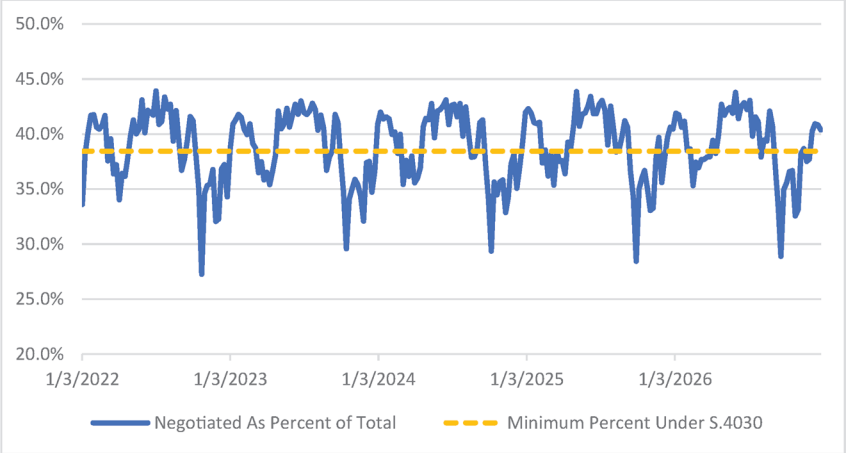

Figure 3. Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Nebraska, Forecast of 2022-2026.

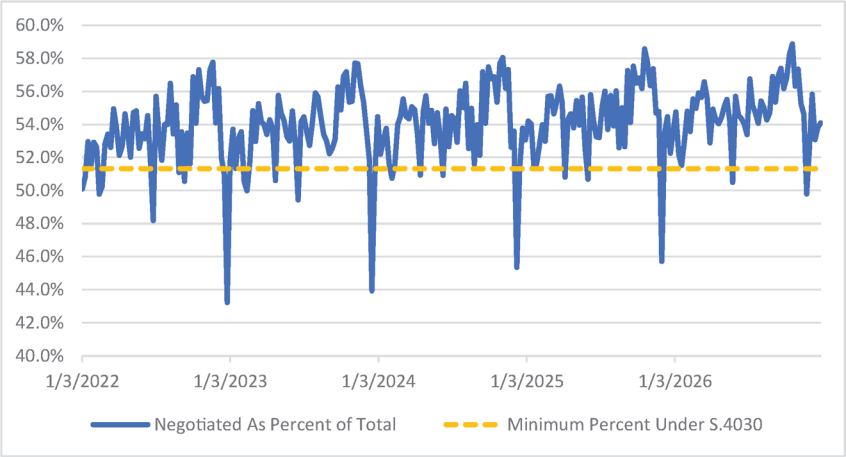

Figure 4. Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Iowa-Minnesota, Forecast of 2022-2026.

Importantly, while Tables 2 & 3 highlight the impacts of mandatory regional minimums reflecting the 2-year average, under S. 4030, the Secretary may set the initial mandatory minimum negotiated volume threshold as high as 50% across all regions. If that were to happen – in the Texas-Oklahoma-New Mexico region, for example – the total expected additional negotiated sales required as a result of S. 4030 would explode, increasing from roughly 1.7 million head (Table 3) to more than 12 million head from 2022 to 2026. In other words, the impact of S. 4030 could be far greater than the estimates in this report, depending on how the Secretary uses the discretion provided in the bill.

In our earlier analysis of S. 3229, we provided the expected cost of the bill assuming various costs per head (Table 3, *Analysis of S. 3229 – Cattle Price Discovery and Transparency Act of 2021*). While we would like to be able to present a similar table in this report for the sake of consistency, we do not replicate the same analysis here because of the additional uncertainty surrounding the new provisions established in S. 4030 (e.g. new reporting regions, packer-level data collection, etc.). While the reader may choose to draw their own conclusions (i.e. at a cost of $50/head on 2.3 million head, the cost of S. 4030 would be $112.6 million from 2022 to 2026), we believe the cost estimates could be significantly larger for the reasons noted above.

Forecast Comparisons

Since the publication of *Analysis of S. 3229 – Cattle Price Discovery and Transparency Act of 2021*, some have cited the forecast of negotiated volume for Texas-Oklahoma-New Mexico in Figure 1 of that publication as justification for imposing a negotiated mandate. Those parties have claimed that the figure shows that negotiated trade will fall to zero absent such mandate. Each of those sources ignore critical points.

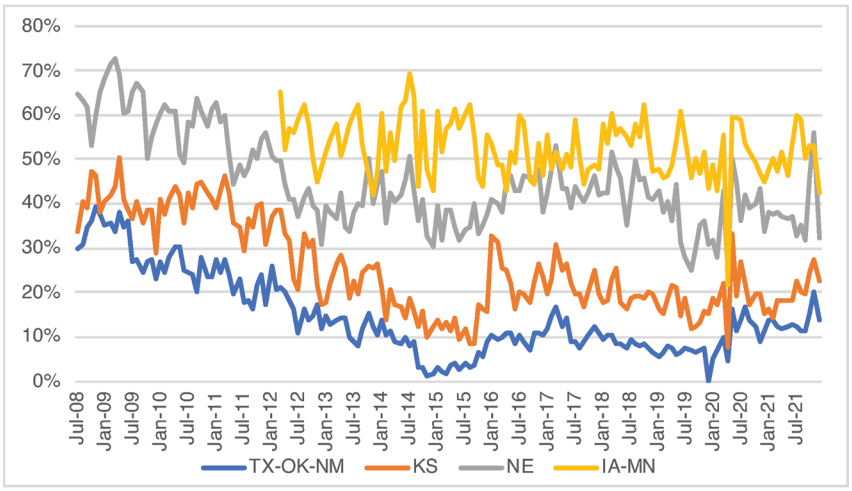

Figure 5. Monthly Average Fed Cattle Negotiated Sales as a Percent of Average Total Fed Cattle Sales by Region, July 2008 – December 2021.

For example, the publication explicitly states:

> *Importantly, though Figure 1 forecasts unrestricted negotiated trade falling to and remaining at zero, we do not expect that negotiated trade will fall completely to zero, but asymptotically approach a near-zero value over time.*

That caveat was included because the authors chose to utilize the most comprehensive data series available for all regions, beginning in 2012 when Mandatory Price Reporting (MPR/LMR) began splitting negotiated and non-negotiated sales across all regions.[2] Though there are unique trends in each region, the length of the data series was maintained across all regions for consistency. The difference in those trends lends important context to the forecasts of negotiated volumes, particularly those in Texas-Oklahoma-New Mexico.

Negotiated trade as a percent of total trade fell at a more rapid pace from 2012-2015 in Texas-Oklahoma-New Mexico and Kansas than in Nebraska (Figure 5). Nebraska lost a significant amount of negotiated volume from 2008-2012, but volumes roughly stabilized between 2012-2021. Negotiated trade remained much closer to zero from 2014 to 2015 in Texas-Oklahoma-New Mexico than in all other regions. Because those data are included in the forecast, the mathematical rate of decline overpowers all other factors and, without explicit truncation in the simulation, drives expected negotiated volumes toward zero.

[2] Split negotiated and non-negotiated data are not publicly available for Iowa-Minnesota prior to 2012.



Figure 6. Comparison of Expected Negotiated Trade Volumes 2022-2026 Using (1) Data from 2012 to 2021 and (2) Data from 2017 to 2021.

However, a shorter data series representing more recent events yields different outcomes in Texas-Oklahoma-New Mexico. A five-year data set (2017-2021) yields higher average negotiated volume as a percent of total trade, and an increasing rate of negotiated trade for certain parts of the series (Figure 6). The resulting expected negotiated volumes still decline, but at a slower rate. Expected negotiated volumes also never reach 0% in a forecast utilizing data from 2017-2021. The results for the other regions are roughly consistent across data sets.

Conclusion

In this analysis, we estimate that an additional 2.3 million head of cattle will be required to be marketed via negotiated sales as a result of S. 4030. While that is considerably less than required under previous versions of the bill (i.e., S. 3229), it is still a significant burden that falls largely on the Southern Plains. Further, between the considerable discretion provided to the Secretary in S. 4030 and the uncertainty surrounding many of the key provisions, we are limited in what we can conclude. While we've restricted our work to using the regional framework that's currently in place with data that is currently available – and while we have purposely excluded overall cost estimates as a result – it's relatively easy to conceive of scenarios where the total cost associated with S. 4030 could end up exceeding that of its predecessor (S. 3229).

Agricultural and Food Policy Center
Texas A&M University

January 2022

Analysis of S.3229 – Cattle Price Discovery and Transparency Act of 2021



AFPC

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Analysis of S.3229 – Cattle Price Discovery and Transparency Act of 2021

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Briefing Paper 22-02

January 2022

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Introduction

On November 9, 2021, Sens. Chuck Grassley (R-Iowa), Deb Fischer (R-Neb.), Jon Tester (D-Mont.), and Ron Wyden (D-Ore.) announced a compromise cattle market proposal that was subsequently introduced as S. 3229, the *Cattle Price Discovery and Transparency Act of 2021*. This bill proposes to establish a regional mandatory minimum threshold for the percentage of cattle purchased under negotiated grid or negotiated pricing terms, establish a cattle contract library, and expand reporting requirements for cattle pricing and slaughter. Senator John Boozman, Ranking Member, Senate Committee on Agriculture, Nutrition, and Forestry, asked the Agricultural and Food Policy Center (AFPC) to examine the impact of the bill on the various segments of the beef and cattle supply chain. This report builds on work published by AFPC in October 2021 at the request of the bipartisan leadership of the House Committee on Agriculture in the 116th Congress.[1]

This examination of the anticipated impact of S. 3229 is made up of two parts: an analysis of the impact of the bill on negotiated trade volume and a qualitative, economic-based summary of expected effects. The expected effects are presented in a matrix format, highlighting the anticipated directional effects of each portion of the bill on a set of criterion, including cattle and beef prices, market transparency, price discovery, and data confidentiality.

Expected Impact of Negotiated Trade Volume Mandates on Forecasted Negotiated Trade Volume

S. 3229 does not impose finalized thresholds of negotiated trade by region. Rather, the bill requires the Secretary of Agriculture (the Secretary) to establish those thresholds – in consultation with the Chief Economist – following public comment. S. 3229 does, however, establish minimum and maximum bounds on negotiated trade by region. The bill establishes regional mandatory minimum thresholds of negotiated cash and negotiated grid trades based on each region's 18-month average trade. Importantly, by design:

- No regional minimum level can be more than three times that of the lowest regional minimum, and
- No regional minimum can be lower than the 18-month average trade at the time the bill is enacted.

In practice, had the bill been enacted on January 1, 2022, the minimum bounds of required negotiated trade would have been based on those presented in Table 1. This analysis excludes Colorado from the typical 5-area cattle region due to lack of consistent data.

[1] https://www.afpc.tamu.edu/research/publications/710/cattle.pdf

Table 1. S. 3229 Negotiated Volume Bounds Utilizing July 2020-December 2021 Data

	Texas-Oklahoma-New Mexico	Kansas	Nebraska	Iowa-Minnesota
18-month Average Weekly Negotiated Volume, Jul. 2020 – Dec. 2021	13,052	22,227	33,231	26,567
18-month Average Weekly Total Volume, Jul. 2020 – Dec. 2021	86,494	83,255	54,624	31,720
18-month Average Weekly Negotiated Volume as Percent of Total Volume, Jul. 2020 – Dec. 2021	15.1%	26.7%	60.8%	83.8%
Minimum Weekly Negotiated Trade as Percent of Total Trade Allowed Under S. 3229	15.1%	26.7%	45.3%*	45.3%*
* Limited to three times the minimum regional 18-month average set by Texas-Oklahoma-New Mexico.				

Do the minimum and maximum bounds of the bill as proposed impose an economic cost to the cattle market? To answer that question, we establish an unrestricted forecast of negotiated trade for each region and subsequently impose the structure of the bounds proposed in S. 3229. In each region, we modeled expected negotiated trade as a function of:

- The trend in negotiated trade,
- Whether or not the cattle cycle was in a year of herd size increase or decrease (cycle),
- Seasonality of historic negotiated trade,
- A dummy variable accounting for the introduction of the industry-led '75% Plan',
- The previous week's negotiated trade volume, and
- Total weekly fed cattle trade.

The model used Monte-Carlo simulation techniques to sample 500 iterations of each empirically-distributed variable. The resulting values collected from each of the 500 iterations were the basis for calculating the expected amount of negotiated trade by region. The difference in the expected amount of unrestricted negotiated trade and the amount of negotiated trade compelled by S. 3229 provides a measure of the cost of the negotiated trade provisions in S. 3229.

Figures 1-4 show the expected unrestricted negotiated trade plotted against the negotiated trade minimums compelled by S. 3229 through December 2026, a 5-year outlook. Each figure represents one of four cattle sales regions and each figure shows two different data series. The first series, plotted with a solid blue line, is a forecast of expected weekly negotiated volume as a percent of total weekly volume with no restrictions imposed. The second series, plotted with a dashed yellow line, is the minimum allowable threshold of

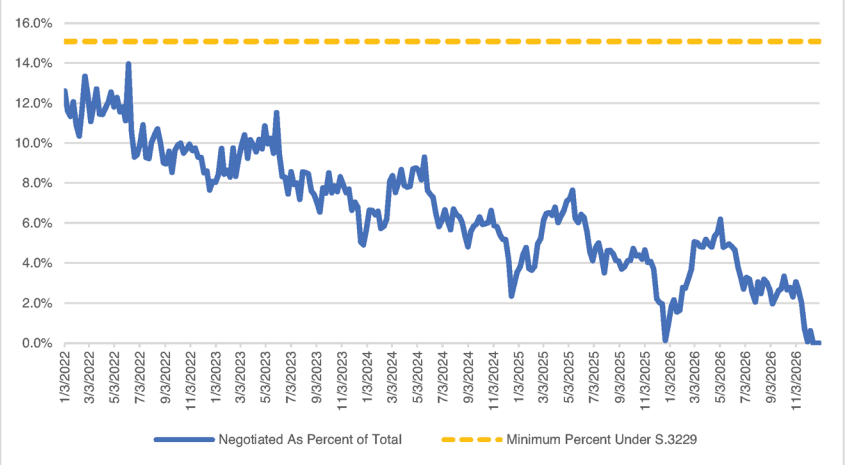

Figure 1: Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Texas-Oklahoma-New Mexico, Forecast of 2022-2026.

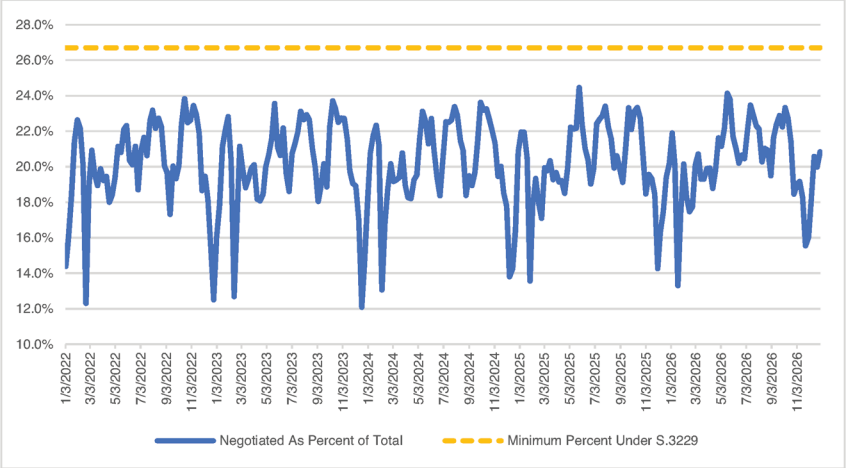

Figure 2: Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Kansas, Forecast of 2022-2026.

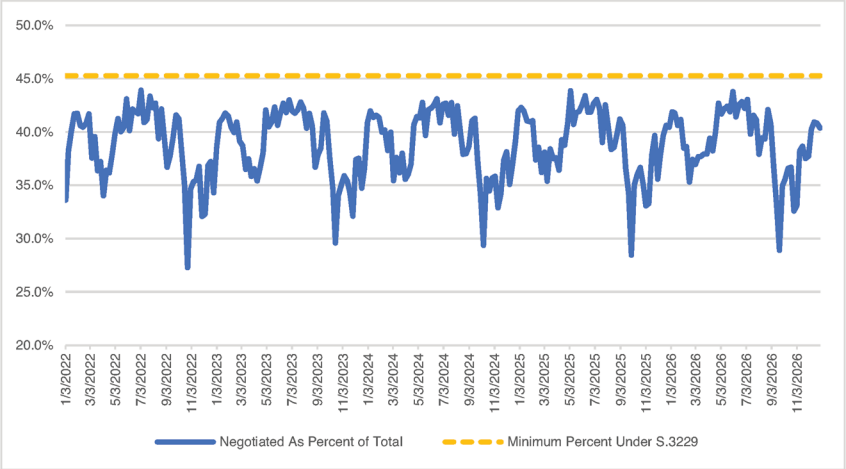

Figure 3: Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Nebraska, Forecast of 2022-2026.

weekly negotiated volume as a percent of total sales under S. 3229, had the bill been in force on January 1, 2022. When the blue line falls below the yellow line, the difference in the two lines represents the percent by which unrestricted negotiated trade falls short of the minimum thresholds established by S. 3229.

For example, as noted in Figure 2, in Kansas during May 2025, there is a point at which expected negotiated trade accounts for 24.5% of total trade. That represents 36,258 head; total expected sales for Kansas that week are 148,284 head. The minimum requirement for weekly negotiated trade in Kansas is 26.7% of total trade, or 39,587 head. The gap between the dashed line and the solid line represents the week's unrestricted negotiated trade shortfall with respect to S. 3229, or 3,330 head. In other words, for this particular week, S. 3229 would force an additional 3,330 head in Kansas into negotiated trade from some other type of sale method.

Figure 1 indicates that the burden of compelled negotiated trade will fall heaviest on the Southern Plains (Texas-Oklahoma-New Mexico); in fact, the burden grows as one moves farther south. The natural trend has been toward smaller volumes of negotiated trade since Mandatory Price Reporting (MPR, often now termed Livestock Mandatory Reporting, or LMR) began splitting negotiated and non-negotiated sales. That trend holds true in the forecast of negotiated trade through 2026 on the Southern Plains. Importantly, though Figure 1 forecasts unrestricted negotiated trade falling to and remaining at zero, we do not expect that negotiated trade will fall completely to zero, but asymptotically approach a near-zero value over time.

The trend in Kansas (Figure 2) is also toward lower negotiated trade volumes over time, though not matching the rate of Texas-Oklahoma-New Mexico. Seasonality appears to have a greater influence on unrestricted negotiated trade volume than in Texas-Oklahoma-New Mexico, pulling unrestricted negotiated trade volumes up and keeping volumes in Kansas closer to the S. 3229 mandated minimums. In fact, if we consider the most

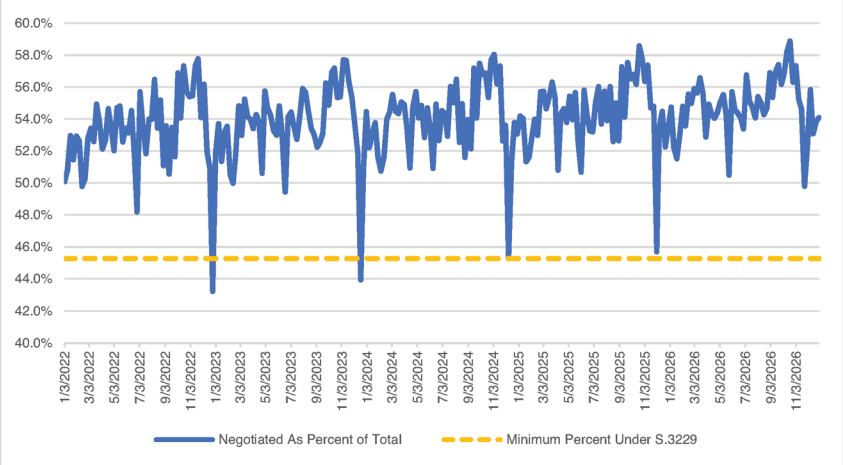

Figure 4: Weekly Unrestricted Negotiated Volume vs. Weekly Policy-Imposed (Restricted) Negotiated Volume, Iowa, Forecast of 2022-2026.

Table 2. Difference in Weekly Forecast Negotiated Volume and Weekly Policy-Imposed Negotiated Volume, Forecast of 2022-2026.

	Average Weekly Expected Deficit, Negotiated Volume	Maximum Expected Deficit, Negotiated Volume	Expected Weeks with Negotiated Volume Deficit Compared to S. 3229 Requirement	Total Expected Additional Negotiated Sales as Result of S. 3229, '22-'26
	Head	*Head*	*Percent*	*Head*
Texas-Oklahoma-New Mexico	9,494	17,142	100	2,477,968
Kansas	7,888	15,019	100	2,058,814
Nebraska	5,773	10,916	100	1,506,643
Iowa-Minnesota	4	624	1	1,050

recent 10-year average of weekly negotiated trade volumes in Kansas (18,737 head) against the 5-year average (19,930 head), we see that negotiated trade reached a stable minimum and began to trend upward again, though it is likely that the industry-led 75% Plan influenced that movement.

Expected negotiated trade in Nebraska (Figure 3) may face the third highest hurdle (behind Texas-Oklahoma-New Mexico, and Kansas) in reaching the levels required by the minimum thresholds under S. 3229. Nebraska's weekly negotiated volume is high relative to all other regions, which may prove to be a challenge under S. 3229. Though Nebraska's weekly negotiated volume is high, the trendline of negotiated volume is marginally lower over time. Because negotiated volume is trending slightly downward, over time negotiated trade in Nebraska tends to fall below the minimums required by S. 3229 more frequently, even with the adjusted minimum percentage accounting for the rule which limits minimum thresholds to only three times the lowest minimum threshold. The strong influence of seasons and cycles (each factor accounts for much more variation in Nebraska than in the other three regions) means that as seasonal and cyclical trends move negotiated trade lower, it is more likely that Nebraska's unrestricted negotiated trade will fall below the S. 3229 mandated minimum levels.

Iowa-Minnesota (Figure 4) will bear the smallest burden from increasing negotiated trade as a result of the implementation of S. 3229. This region, with the greatest historic negotiated volume as a percent of total trade, will bear a very small cost from the implementation of S. 3229.

One important factor in the data is the role of holiday weeks in determining the percent of cattle traded via negotiation vs. AMAs. Holidays typically see a lower utilization of negotiation because there are fewer days to work on a holiday week. Holiday weeks require fewer total purchases. In promulgating a regulation, it will be important to consider the impact of weeks that include a holiday.

Table 2 details the results shown in Figures 1-4 numerically. Again, it is clear that Texas-Oklahoma-New Mexico will be forced to make the greatest adjustments under S. 3229. When comparing unrestricted expected negotiated volumes with the requirements set forth in S. 3229, Texas-Oklahoma-New Mexico would naturally fall out of "compliance" 100% of the weeks from 2022 through 2026. On average, S. 3229 would force an estimated 9,494 additional head into negotiated trade from some other sale method each week in Texas-Oklahoma-New Mexico from 2022-2026. In total, were S. 3229 in force as of January 1, 2022, with the established minimums, roughly 6 million head of live cattle would be forced into negotiated trade from some other type of sale method.

Does this change in negotiated volume have a cost? If so, what is/are those costs specific to changes in negotiated volume? Typically, a move away from alternative marketing arrangements (AMAs) results in lost efficiency. This efficiency loss translates directly into increasing the transaction cost of buying and selling cattle.

First, packers that operate with AMAs tend to have lower marketing costs (Koontz 2020). A seemingly common practice among packers that utilize AMAs is to set prices according to some pre-established combination of factors that may include a schedule of premiums averaged over all pens, estimated adjustments for feeding costs, adjustments for delivery based on ownership status, and more. These adjustments are then added to a base value that fluctuates throughout the year according to some pre-agreed-upon price series; the previous week's price at a given plant, the previous week's price in a given region, or the price on a futures exchange all seem to be common series. The ability to set these prices once, and to then apply those prices across all animals, decreases the time necessary to establish a price for cattle, saving both the seller and buyer time.

Second, reliability of supply is a critical component to operating a large packing plant. Koontz 2020 notes that plants with higher AMA volumes have more stable average monthly volumes. Anecdotally, we know that AMAs assist in the procurement and scheduling of cattle for delivery far into the future. Therefore, we can assume that reducing the use of AMAs will induce more volatility in cattle supply to individual plants. This is a critical point that will increase costs for large plants. Larger plants operate on economies of scale and efficiency; the more animals over which a plant is able to spread its fixed costs, the more profitable it remains. Therefore, an unreliable supply of animals, or gaps in the supply chain, require that a greater amount of fixed costs be allocated to each animal processed.

A third set of increased costs from a mandated reduction in AMA use would be borne by the cattle feeding sector. As previously noted, AMAs introduce an element of stability for the purchase and delivery of live cattle. Koontz 2020 notes that this stability from known marketing arrangements allows cattle feeders to secure investment and better terms on those investments from outside parties; the lowered risk from the use of AMAs makes investment in cattle feeding more attractive to outside investors. More external investment allows cattle feeders to feed more cattle, more efficiently utilizing their capacity. Lowering the use of AMAs would therefore decrease the demand for feeder cattle, lowering the value of calves and subsequently cows.

Having established some of the expected results of mandated lower AMA use, what are the estimated costs? The 2007 'RTI study' synthesized in Koontz 2020, suggests that the impact of 'limiting' the use of AMAs will raise costs by $35 per head sold, with $10 per head accruing to the packer and $25 per head accruing to the cattle feeding industry. Koontz 2020 further notes that the value of AMAs has likely increased from $35 per head to $65 per head. Koontz's values, presented in 2020, apply to a scenario in which AMAs are completely eliminated. S. 3229 does not mandate complete elimination of AMAs. This analysis then represents potential costs only from a reduction in the use of AMAs (or stated another way, an increase in negotiated cash transactions).

Table 3. Expected Cost of S. 3229 Negotiated Trade Provisions at Varied Cost per Head, 2022-2026.

	$20.00/Head	**$30.00/Head**	**$40.00/Head**	**$50.00/Head**	**$60.00/Head**
Texas-Oklahoma-New Mexico	$49,559,365	$74,339,048	$99,118,730	$123,898,413	$148,678,096
Kansas	$41,176,288	$61,764,431	$82,352,575	$102,940,719	$123,528,863
Nebraska	$30,132,862	$45,199,293	$60,265,724	$75,332,155	$90,398,586
Iowa-Minnesota	$21,008	$31,512	$42,016	$52,520	$63,024
Total Cost	**$120,889,523**	**$181,334,284**	**$241,779,046**	**$302,223,807**	**$362,668,569**
Annual Cost	**$24,177,905**	**$36,266,857**	**$48,355,809**	**$60,444,761**	**$72,533,714**

To encompass a range of possible outcomes, Table 3 contains the estimated cost per region, the total cost to the 5-area cattle and beef industry, and the annual cost to the 5-area cattle and beef industry at different potential costs per head from enacting the negotiated trade minimums in S. 3229. The values in Table 3 are calculated using the cost per head multiplied by the total additional negotiated sales induced by S. 3229 by region, presented in Table 3. It is important to remember that these costs are based on the minimum thresholds allowed under S. 3229 had it been in force on January 1, 2022. Were the Secretary to set a higher threshold, we assume that these costs would increase. Note that 41% of the estimated total costs from S. 3229 will be borne by Texas-Oklahoma-New Mexico.

Overall Directional Impacts of S. 3229 on Various Stakeholders

The matrix of expected effects of the bill (Table 4) is used to portray a consensus of expected impacts on an array of interest areas. This consensus of expected impacts is based on past research in the area (Fischer, et al.). The three segments of the bill are portrayed across the top of Table 4 and the effect on each interest area is contained in a row. The effect represents an evaluation of the impact on each area.

Negotiated Trade Mandate

Mandated levels of negotiated trade are expected to have negative effects on cattle and calf prices. That is to say that the mandate will result in lower short term fed cattle prices due to the increase in the costs of the feeder-packer cattle sale transaction. Research has shown there is a value to AMAs in the form of lower costs, improved logistics, and reduced risk. Mandating higher levels of negotiated trade will result in higher transaction costs. The higher transaction costs will result in lower cattle and calf prices and higher wholesale and retail beef prices. Lower prices will have the long-term effect of reducing cattle and beef production resulting in higher prices. We would suggest that fed cattle and feeder calf prices would increase back to their long-term expected levels, but not necessarily increase to higher levels. The long run price reversion back to earlier

Table 4. Matrix of Expected Impacts of Proposed Changes in S. 3229 on Stakeholder Groups.

	Negotiated Trade Mandate	Contract Library	Expand Reporting Requirements
Short Term Feeder Cattle Prices	↓	—	—
Short Term Fed Cattle Prices	↓	—	—
Long Term Feeder Cattle Prices	—	—	—
Long Term Fed Cattle Prices	—	—	—
Short Term Retail Beef Prices	↑	—	—
Long Term Retail Beef Prices	—	—	—
Market Transparency	↑	↑	↑
Price Discovery	↑	—	↑
Confidentiality	—	—	—
Long Term Beef Production	↓	—	—
Negotiated Trade Volume	↑	—	—
Note: — equals no change			

equilibrium levels is driven by the reduction in cattle and beef production. Based on this, one might argue that the industry will be smaller.

Negotiated trade mandates do provide additional price discovery and market transparency. More price discovery, however, does not mean that cattle prices would be higher. It's worth explicitly pointing out the economic tradeoffs that this portion of S. 3229 creates. The bill does increase price discovery, but at the cost of lower prices to cattle producers and higher prices to beef consumers. There is no evidence that increasing price discovery would increase cattle prices.

Contract Library

The effects of the contract library would be exclusively felt in terms of market transparency. The contract library would increase market transparency. Some in the industry believe that there are secret, or special, deals offered to some sellers, but not others. A library would clear up some questions about what is offered. Cattle sellers would be able to see the formulas that have been offered by buyers in the past. Improved knowledge about the conditions of different formulas (e.g. base price, any premiums or discounts, associated grids, delivery requirements) would reduce uncertainty and doubts about how the market functions. The details contained in the library will be important. For example, is a particular formula still offered, how many cattle were sold under each formula, are they still used, are some types no longer offered, different formulas by region are all types of information in the library that would be useful.

Expanded Reporting Requirements

Reporting requirement expansion would impact two areas: transparency and discovery. It would likely increase both of these. Increased market reporting would boost market information to buyers and sellers allowing the incorporation of that information into the transaction and discovery process. More reported price information would make the market more transparent. Expanded reporting is not likely to materially affect any other area listed in Table 4.

Conclusions

This analysis examines the expected effects of S. 3229 on various segments of the beef and cattle supply chain. Bottom line: there are tradeoffs. While more price discovery and market transparency can be achieved, forcing the movement away from AMAs via regional mandatory minimums for negotiated purchases will result in lower cattle prices and higher wholesale and retail beef prices.

References

Fischer, Bart L., Joe L. Outlaw, and David P. Anderson. "The U.S. Beef Supply Chain: Issues and Challenges." Agricultural & Food Policy Center, College Station, TX, 2021.

Koontz, S.R., 2020. "A Synthesis of the Costs and Benefits of AMAs to the Cattle and Beef Industry – White Paper." Unpublished, Colorado State University. Available from the author.

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Analysis of the Cattle Price Discovery and Transparency Act of 2021

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Executive Summary

Alternative Marketing Arrangements (AMAs or formula pricing) have become the dominant means of trading fed cattle. AMAs reduce transactions costs and provide risk management advantages on both sides of the market. Still, the proliferation of AMAs and consequent thinning of cash negotiated trade has raised significant concerns among market participants. These concerns relate primarily to the potential exercise of market power to reduce fed cattle prices and/or inflate marketing margins and to the quality of price discovery in the relatively thin negotiated cash market.

Fed cattle market data from the last decade give no indication of a positive causal relationship between negotiated trade volumes and fed cattle prices (Figure 2 in the full report). From 2002 to 2015, negotiated sales decreased steadily, and this decline coincided with a substantial increase in prices. In fact, record cattle prices in 2014-2015 correspond to the period of lowest negotiated sales. More recently, from 2020 to 2021, fed cattle prices increased 11.7%, while negotiated sales decreased 16.1%. Statistical analysis into the relationship between negotiated fed cattle trade and both price levels and marketing margins supports the conclusions of the informal visual appraisal of the data (and with previous literature): there is no statistically significant relationship between negotiated cash trade volume and either fed cattle prices or beef marketing margins. In short, our results suggest AMAs do not allow beef packers to increase beef margins and lower cattle prices.

With respect to price discovery, recent analysis by Anderson, McKenzie, and Mitchell (2021) found that price discovery appears to be functioning effectively in even the thinnest regional fed cattle markets. This is consistent with previous research covering a variety of commodity markets. If transactions are reasonably representative of the overall market, even a relatively small handful of transactions can effectively discover prices.

AMAs result in substantial transactions cost savings in the fed cattle market (Koontz, 2020). To the extent that the Cattle Price Discovery and Transparency Act (CPDTA) reduces the use of AMAs compared to the status quo, it will also raise costs in the sector. Plant level impacts of the CPDTA may be quite large and will probably actually be greatest in regions where negotiated cash trade is currently highest because plants in these regions could have to adjust the most to comply with the terms of the bill.

Quantitative and qualitative results suggest that the CPDTA may decrease Arkansas cattle prices, reduce incentives to improve cattle quality in Arkansas, and shrink the size of the Arkansas cattle industry. Impacts are difficult assess with any precision since the bill does not clearly establish transaction volumes. Results from the literature and our own analysis show that even small increases in negotiated trade volumes through mandates could reduce Arkansas cattle value by $4 million to $6 million per year.

Benefits of reduced AMA use (alternatively, higher negotiated cash trade) are generally speculative. As noted, evidence that higher negotiated trade will positively impact prices, reduce marketing margins, or improve price discovery is lacking. However, many market participants clearly see negotiated cash trade as a good in and of itself. To the extent the industry desires greater cash market engagement, lower-cost means of achieving this outcome are available. A market maker program would incentivize negotiated cash sales through means of an assessment on AMA cattle. Such a program (or similar incentive strategies) would leave marketing decisions to cattle owners, offering a means of increasing negotiated cash sales that would likely be far less costly and less disruptive to the market than a mandate.

Analysis of the Cattle Price Discovery and Transparency Act of 2021

Among all the food and agricultural supply chains in the United States, the beef supply chain faced the biggest economic disruptions from COVID-19. Packing plant closures, labor shortages, and supply chain logistics were all challenges that the beef industry had to contend with during the early stages of the pandemic. There were also significant consumer demand impacts from consumer panic buying, local pandemic restrictions, and restaurant and bar closures (Anderson, Mitchell, and Maples, 2021). Several of these supply chain issues persist today. Add packing plant fires, cyber-attacks, Winter Storm Uri, and severe drought, and it is easy to see why the past few years have been especially challenging for cattle producers.

Against the backdrop of COVID-19, there are increasing calls for legislative action. Many in the beef cattle industry feel the system is broken. One notable policy is the Cattle Price Discovery and Transparency Act of 2021 (CPDTA). CPDTA would establish regional mandatory minimum thresholds of negotiated cash and negotiated grid trades for the five regional fed cattle markets. By establishing these minimum thresholds, the bill aims to limit the use of formula pricing, or alternative marketing arrangements (AMAs), which have come to dominate the fed cattle market in recent years. This would represent a significant intervention in this important sector of the economy. It is important to understand, to the fullest extent possible, the potential costs and benefits of this intervention. That is the purpose of this analysis.

Evolution of Fed Cattle Pricing and the Role of Alternative Marketing Arrangements

Fed cattle pricing practices have evolved substantially over the past three decades. Until the 1990s, virtually all fed cattle were traded through negotiated transactions. This mostly consisted of direct negotiation between buyers (packing plants) and sellers (feedlots), though some fed cattle, mostly in the Corn Belt, were sold through livestock auctions. In the 1990s, the use of standing contractual arrangements between feedlots and packers became a common means of trading fed cattle. These arrangements typically involved the use of a mutually-agreed upon formula for establishing the sales price on cattle exchanged under terms of the agreement in any given week. They were thus commonly referred to as formula pricing arrangements. Now generally referred to as alternative marketing arrangements (AMAs), these standing agreements between feeders and packers have become the dominant means of trading fed cattle. Figure 1 shows fed cattle transactions by transaction type nationally (i.e., aggregating across USDA's five major reporting regions) over the past twenty years.[1]

As Figure 1 shows, negotiated transactions across the five regions fell steadily for about a decade between around 2005 and 2015. Since that time, the balance between negotiated and AMA transactions in the market has been relatively stable. In 2021 across the five major feeding areas defined by USDA Agricultural Marketing Service (AMS) for reporting purposes, AMAs accounted for approximately 60% of fed cattle transactions between feeders and packers; negotiated sales accounted for about 30% of transactions, and forward contracts (e.g., fixed price or basis contracts) account for about 10% of transactions.[2]

[1] The five market reporting areas defined by USDA Agricultural Marketing Service are Texas, Oklahoma, and New Mexico (TX/OK/NM); Kansas (KS); Nebraska (NE); Colorado (CO); and Iowa/Minnesota (IA/MN).

[2] These percentages do not include the relatively small number of packer-owned cattle, which typically account for less than 2% of total slaughter in any given week.

The use of AMAs has proliferated for some very good reasons. A significant deficiency of the negotiated trade system that dominated the fed cattle market before the emergence of AMAs is that all animals in a given sale lot receive the same price: that is, prices are negotiated at the pen level (at least, a single negotiation often includes multiple pens) and all animals in that group receive the same price. In short, there is little incentive for sellers to control quality. In an average pricing mechanism, below average cattle receive the same price as above average cattle. Such a mechanism does not effectively transmit market signals from buyers to sellers. In the beef/cattle industry, this meant that price signals about consumer preferences related to beef did not necessarily make it back to producers (feedlots and cow/calf producers). This put the beef industry at a significant competitive disadvantage relative to chicken and pork, whose more tightly integrated/coordinated supply chains conveyed market signals very efficiently. Both industries took market share from beef throughout the 1980s and 1990s.

Individual pricing arrangements in which a base price was adjusted by premiums and discounts for carcass merits to establish a price for each animal based on its quality (i.e., grid pricing) greatly improved price signals in the industry and facilitated closer alignment between consumer preferences and production decisions. Rather than repeatedly negotiating base prices and premium and discount structures on each transaction, buyers and sellers quickly realized the transaction cost advantages of establishing standing formula arrangements to establish pricing terms. Thus, the rise of individual pricing gave a significant boost to the use of AMAs (Peel and Anderson, 2021).

An important point to note in the foregoing summary is that AMAs developed primarily at the behest of cattle feeders. Grid pricing systems (which is what AMAs largely evolved from) originated as a way for feeders to be compensated for higher quality cattle. AMAs have done a great deal to incentivize higher quality, more consistent product in the beef supply chain. One of the common complaints about the widespread adoption of AMAs is that AMA users benefit from the information generated through negotiated trade. This is certainly true (and will be explored in more detail below), but it is equally true that the market as a whole has benefited from the richer information flow and clearer price signals related to end product attributes that AMAs have facilitated (and to which average price sales contribute very little).

While AMAs developed primarily as a means to properly incentivize cattle producers, they have come to play an important risk management role for participants on both sides of the market (Ward et al., 1996a). For meat packers, due to the significant economies of size associated with packing plant operation, maintaining optimal (i.e., cost-minimizing) plant throughput is a high priority (Morrison-Paul, 2001). The use of AMAs (as well as other forms of contracting) gives them greater control over the flow of cattle through their plants and is therefore an important tool for packers in managing their cost of production (Schroeder et al., 1998). On the other side of the transaction, feeders face a number or risks that can be mitigated or eliminated through some form of contracting, including advance production risk, matching risk, and negotiation failure risk.[3] Essentially, feeders face the prospect of incurring large production costs that they won't be able to recoup in the event of an adverse price move (advance production risk); in negotiation, they will potentially be at a bargaining disadvantage for a variety of reasons (matching risk); and if they can't settle on terms of trade with a buyer, they face the costly prospect of carrying market-ready cattle forward for at least a week, incurring substantial costs to do so

[3] For a summary discussion of the risks facing cattle feeders and how these affect their bargaining position in the market as well as their incentives for contracting, see Bastian (2021).

(negotiation failure risk). Having a secure, standing arrangement with a buyer who will take cattle in the week of the feeder's choosing (which is typical of AMAs) goes a long way toward alleviating these risks.

The combined benefits of AMAs to the beef industry in the form of reduced transactions costs, lower operating costs, and risk reduction are substantial. Extrapolating from the results of Muth et al. (2007), Koontz (2020) estimates the value of AMAs to be at least $35 per head (with benefits split roughly one-third to packers and two-thirds to feeders).

One concern is that thinning cash markets and increased AMAs use have led to decreasing cattle prices. Specifically, the concern is that AMAs allow beef packers to exercise market power on the fed cattle market. Concerns about market power, AMAs, and cattle prices have been thoroughly examined in the literature (e.g., Ward, Koontz, and Schroeder, 1996b; Ward, Koontz, and Schroeder, 1998; Muth et al., 2007; Koontz, 2020; Koontz, 2021). Results in the literature show that AMAs do not result in lower cash prices or that the effect is small (not economically significant) and far outweighed by the value of efficiency gains attributable to AMAs.

Figure 2 shows the relationship between the 5-area fed cattle price and negotiated trade volume. From 2002 to 2015, negotiated trade volume in the fed cattle market decreased. At the same time, fed cattle prices increased. Record cattle prices for 2014-2015 correspond to the lowest negotiated trade volume. More recently, from 2020 to 2021, fed cattle prices increased 11.7%, while negotiated trade volume decreased 16.1%. The following two sections closely examine the relationship between cattle prices, price spreads, and negotiated cash trade volume and discuss why the three involve separate but related economic concepts.

AMAs, Cattle Prices, and Farm-to-Wholesale Price Spreads

While the benefits of AMAs are well-documented, as use of these instruments has come to dominate the market, concerns have arisen about the potential negative consequences of AMAs. Related to these concerns, one key question that the beef cattle industry and policymakers are asking is whether CPDTA will increase cattle prices and decrease the farm-to-wholesale beef marketing margin. This section aims to provide answers to these critical policy questions.

To determine whether CPDTA will affect beef and cattle markets, we investigate the relationship between fed cattle prices, beef marketing margins, and negotiated cash trade volumes, developing a two-sector model of the beef supply chain. This model is then used to derive expressions for fed cattle prices and beef marketing margins. The model expands on Brester and Marsh (2001) by incorporating negotiated cash trade volume as an exogenous supply and demand shifter. Using monthly data and regression analysis, we estimate the relationship between fed cattle prices, beef marketing margins, and negotiated cash trade volume in the fed cattle market.

This is not the first study to examine the relationship between fed cattle prices and market volume. The USDA GIPSA RTI Livestock and Meat Marketing Study conducted in 2007 provides perhaps the most comprehensive analysis of this research question. In their analysis, Muth et al. (2007) uses packer-specific transactions data to determine whether AMAs allow packers to exercise market power and depress cattle prices. The main finding from Muth et al. (2007) was that fed cattle price declines stemming from AMA use and market power were far outweighed by AMA benefits to the cattle industry. While Muth et al. (2007) might seem dated, the project took several years to complete, uses several proprietary data sources, and is still considered the gold standard for research investigating cattle markets and AMAs. Still, the research question is worth revisiting. Moreover, Muth et al. (2007) did not directly estimate the relationship between cash market volume and the beef marketing margin.

In their analysis, Pendell, Schroeder, and Knoeber (2003) determine whether or not marketing agreements and forward contracts relate to the farm-to-wholesale beef margin. Using a relative price spread model, Pendell, Schroeder, and Knoeber (2003) do not find a statistically significant relationship between captive supplies and the beef marketing margin. Ward, Koontz, and Schroeder (1998) use transactions data to examine the relationship between captive supplies and fed cattle prices. Their results do not indicate that packer captive supplies impact fed cattle cash prices. Ward, Koontz, and Schroeder (1996b) find that packer captive supplies were associated with a decline in fed cattle cash prices but argue that the effect is small and economically insignificant.

Conceptual Framework. Answering both questions, as described above, is straightforward. It requires the development of a model of the beef supply chain. Several such models are described in the economics literature, but all are built on the same conceptual framework. To reduce unnecessary complexity, but without loss of generality, we will proceed with a two-sector model of the beef supply chain.

In the model, feedlots are the primary supply. Each feedlot uses feeder cattle, feed, and labor (production inputs) to produce fed cattle (production output), which they supply to beef packers. On the other side, beef packers represent derived demand for fed cattle. Beef packers use fed cattle, labor, capital, and utilities (production inputs) to produce wholesale beef (production output). Each packer supplies wholesale beef to food processors and retailers. Finally, food processors and retailers demand wholesale beef, which is sold to consumers.

Equations (1)-(8) depict the two-sector beef supply chain.

Beef Packing Sector

(1) $P_w^s = f_1(Q_w^s, NT, X)$ (Inverse Supply)

(2) $P_w^d = f_2(Q_w^d, Y)$ (Inverse Demand)

(3) $P_w^s = P_w^d = P_w$ (Market-Clearing Price)

(4) $Q_w^s = Q_w^d = Q_w$ (Market-Clearing Quantity)

Feedlot Sector:

(5) $P_f^s = g_1(Q_f^s, NT, A)$ (Inverse Supply)

(6) $P_f^d = g_2(Q_f^d, NT, B)$ (Inverse Demand)

(7) $P_f^s = P_f^d = P_f$ (Market-Clearing Price)

(8) $Q_f^s = Q_f^d = Q_f$ (Market-Clearing Quantity)

In equation (1), the wholesale supply price (P_w^s) is a function of the wholesale supply quantity (Q_w^s), percent negotiated cash trade in the fed cattle market (NT), and other exogenous supply shifters (X). Equation (2) shows the wholesale demand price (P_w^d) as a function of wholesale demand quantity (Q_w^d)and exogenous demand shifters (Y). Equations (3) and (4) are the wholesale beef price and quantity that clear the wholesale beef market, respectively.

For the feedlot sector, equation (5) is inverse supply of fed cattle, where the feedlot supply price (P_f^s) is a function of the feedlot supply quantity (Q_f^s), percent negotiated cash trade in the fed cattle market, and exogenous supply shifters (A). In equation (6), the feedlot demand price (P_f^d) is a function of the feedlot demand quantity (Q_f^d), percent negotiated trade, and exogenous demand shifters (B). Equations (7) and (8) are the fed cattle price and quantity that clear the fed cattle market, respectively.

Inserting equations (5) and (6) into equation (7) and utilizing the identity in equation (8) gives:

(9) $P_f = g_3(Q_f, NT, A, B)$.

Equation (9) provides a way to examine the relationship between fed cattle prices and the percent of negotiated cash trade in the fed cattle market. Fed cattle prices are a function of slaughter cattle quantity, the volume of cash trade in the fed cattle market, and exogenous supply and demand shifters. Supply and demand shifters might include input prices for feedlots and beef packers, output prices for beef packers, technology change, and seasonality.

Utilizing equations (1)-(8), we can also arrive at an equation for the beef marketing margin. Substituting equations (1) and (2) into equation (3) and equations (5) and (6) into equation (7) provides us with expressions for P_w and P_f, respectively. Using the identities in equations (4) and (5) and subtracting P_f from P_w gives:

(10) $M_{wf} = P_w - P_f = f_3(Q_w, Q_f, NT, X, Y, A, B)$.

Fed cattle quantity (Q_f) is dropped from equation (10) because it is virtually the same variable as the wholesale quantity (Q_w) if we assume an average dressed weight and dressing percentage for fed cattle slaughter (Brester and Marsh, 2001). Equation (10) provides a way to examine the relationship between fed cattle prices and the percent of negotiated cash trade in the fed cattle market.

Empirical Framework. The key question we are examining is whether negotiated cash trade volume affects fed cattle prices and the farm-to-wholesale beef marketing margin. To do this, we approximate equations (9) and (10) with linear regression models:

(11) $PFed = \beta_0 + \beta_1 NT + \beta_2 SLTR + \beta_3 Choice + \beta_4 Wage + \sum_j \gamma_j X_j + \sum_t \delta_t D_t + \varepsilon$

and

(12) $Margin = \alpha_0 + \alpha_1 NT + \alpha_2 BProd + \alpha_3 Choice + \alpha_4 MCI + \sum_k \theta_k Z_k + \sum_t \eta_t D_t + \upsilon$

where $PFed$ is the fed cattle price, NT is the volume of negotiated cash trade in the fed cattle market, $SLTR$ is the quantity of steer and heifer slaughter, $Choice$ is the percent of fed cattle grading choice, $Wage$ is the Producer Price Index for wages, X_j are other exogenous supply and demand shifters, D_t are seasonal dummy variables, and ε is the error term. $Margin$ is the farm-to-wholesale beef marketing margin, $BProd$ is the quantity of beef production, MCI is an index of food manufacturing costs, Z_k are exogenous supply and demand shifters, and υ is the error term. In equations (11) and (12), β_1 and α_1 are the effects of interest, providing a measure of relationship between cattle prices, beef marketing margins, and negotiated cash trade volume.

It is well documented in the literature that the use of alternative marketing arrangements (AMAs) have, in part, led to quality and consistency improvements for the beef cattle industry. Figure 3 shows the percent of fed cattle grading choice and prime for the 2002-2021 period. In 2002, 62% of cattle were grading choice or higher. Today, approximately 85% of fed cattle in the U.S. grade choice or higher. Improvements in product quality have added significant value to the beef industry. During that same period, AMA use increased from 49% in 2002 to 62% in 2021 (see Figure 1). Both figures suggest a positive correlation between quality grade and AMAs—or conversely, a negative correlation between quality grade and negotiated cash trade volumes.

Research also finds that AMAs lower operating costs, reduce transactions costs, and offer efficiency gains for the beef industry (Koontz, 2020). Transactions costs reflect the value of time and effort associated with arriving at a transaction. Participating in the fed cattle market involves significant

transaction costs. Search costs, information collection, planning, scheduling, evaluating alternatives, transportation, and labor are all aspects of the transaction costs for participants in the negotiated fed cattle market. Failing to arrive at a trade is another source of transactions costs. AMAs reduce these transaction costs and allow for more efficient management of cattle supplies. Koontz (2020) estimates cost savings from $7.65 to $9.90 per head from fed cattle marketing agreements. Most of the cost savings are attributed to labor cost savings, $1.25 to $10.00 per head (Koontz, 2020).

Cattle quality and transactions costs are two confounding factors that likely affect cattle prices and the beef marketing margin. That is, both will affect supply and demand fundamentals in the beef and fed cattle markets. Cattle quality and transaction costs are also expected to negatively correlate with the volume of negotiated trade in the cash market. In both regression models, $Choice$ is included to capture changes in cattle quality over time. $Wage$ and MCI proxy the value of time and effort, reflecting changes in transactions costs.

We hypothesize that controlling for cattle quality and transactions costs in equations (9) and (10) will result in the volume of negotiated trade having no effect on cattle prices and the beef marketing margin. That is, after partialling out the effects of cattle quality and transactions costs, the remaining variation in negotiated trade will not affect cattle prices and the marketing margin. With reference to equations (9) and (10), our hypothesis is tested by determining if β_1 and α_1 are statistically different from zero.

Data. We use monthly data from April 2001 to October 2021 to examine the effects of negotiated trade volume on cattle prices and the farm-to-wholesale beef marketing margin. Price data for cattle prices, cutout values, and farm by-product values were collected from the Livestock Marketing Information Center (LMIC). Table 1 reports variable symbols, names, and definitions.

Live fed cattle prices (*PLive*) are the 5-area monthly weighted average price for steers sold on a live basis. We also collected data on fed steers sold on a dressed basis for the 5-area market (*PDress*). Wholesale beef prices are measured by the choice boxed beef cutout value (*Cutout*). *ByProduct* are farm by-product values for beef including hide and offal. The farm-to-wholesale beef marketing margin is *Cutout* plus *ByProduct* minus *PLive* and is measured on a carcass equivalent basis.

Data were collected for three measures of negotiated cash trade volume. The first, *NTT,* variable is the number of negotiated transactions for the 5-area market as a percent of the total number of fed cattle transactions (live and dressed basis). *NLT* in Table 1 is the number negotiated transactions for the 5-area market as a percent of the total number of fed cattle transactions for fed cattle sold on a live basis. *NDT* is the number fed cattle sold on a dressed basis that were negotiated transactions as a percent of the total number of fed transactions for 5-area markets.

Slaughter cattle quantity is measured by the monthly federally inspected steer and heifer slaughter (*SLTR*). Beef quantity is measured by per capita beef production on a retail weight equivalent basis (*BProd*). Both beef and slaughter cattle quantities were collected from the LMIC.

The value of time is proxied with the Producer Price Index for wages collected from USDA-NASS. Similarly, the food manufacturing cost index (*MCI*) is a proxy for production costs for beef packers. The manufacturing cost index was collected from the University of Missouri's Agricultural Markets and Policy Group. The index consists of 50% wages, 10% fuel, rubber & plastics, and general commodities and services, and 5% rent, taxes, interest and repairs. The percent of cattle slaughtered that grade choice (*Choice*) is a proxy variable for changes to cattle quality and is collected from LMIC.

Additional control variables (X_j and Z_k) for the fed cattle price and beef margin equations include per capita pork and poultry production, choice boxed beef cutout values, farm by-product values for beef, Oklahoma City feeder cattle prices, Nebraska corn prices, and average steer carcass weights. Control variable selection is based on the research findings from Wohlgenant and Mullen (1987), Brester and Marsh (2001), and Pendell, Schroeder, and Knoeber (2003).

Feeder cattle and corn prices are input costs for feedlots. Carcass weights measure technology change for feedlots i.e., beef per animal. Boxed beef cutout and farm by-product values are a measure of output prices for beef packers. Per capita pork and poultry production data were collected to measure output substitution for beef packers. Finally, monthly dummy variables capture seasonality in fed cattle prices and beef marketing margins. Table 2 reports summary statistics for the variables used in the analysis. All prices are deflated to constant dollars using the Consumer Price Index.

Results. The fed cattle price and beef marketing margin equations are estimated with maximum likelihood. Two fed cattle price equations are estimated (Table 3). The first model is for fed cattle prices and negotiated trade volume for cattle sold on a live basis. The second fed cattle price model is fed cattle prices and negotiated trade volume for cattle sold on a dressed basis. We examine live and dressed prices separately to determine whether results are consistent across markets. Also, there is considerably less negotiated trade for fed cattle sold on a dressed basis. For the sample period, negotiated cash trade averaged 63% and 22% for live and dressed fed cattle, respectively. The beef marketing margin results in table 4 are for total negotiated cash trade volume (live and dressed).

Augmented Dickey-Fuller tests indicate that several variables in the fed cattle and beef margin models are non-stationary. Unit root tests on the model residuals were conducted to determine whether there is a cointegrating relationship. Results indicate that the model residuals are stationary for both the fed cattle price models and the beef marketing margin model. Models are estimated with the data in levels. Results indicate the presence of autocorrelation in all three models. For each model, residuals are modeled as an autoregressive process.

Results in table 3 indicate that negotiated cash trade volume does not have a significant effect on fed cattle prices. The coefficients for *NLT* and *NDT* are positive but not statistically significant at any conventional level. These results suggest that mandating a minimum for negotiated cash trade will not necessarily translate to higher cattle prices. Results were consistent across functional forms, choice of control variables, and residual correlation structures.

Importantly, table 3 shows that fed cattle prices are determined by factors consistent with expectations. Feeder cattle and corn prices have a positive and statistically significant effect on fed cattle prices. For example, a $1/bu increase in corn prices results in a $2.03/cwt increase in fed cattle prices. A $1/cwt increase in Oklahoma City feeder cattle prices increases fed cattle prices by $0.44/cwt. As input costs rise, so do fed cattle prices. Average steer carcass weights have a negative and statistically significant effect on fed cattle prices. Technology improvements have led to declines in cattle prices as we can produce more beef per animal. Wholesale beef prices are positive and statistically significant.

Results in table 4 indicate that negotiated cash trade volume does not significantly affect the farm-to-wholesale beef marketing margin. The coefficient for *NTT* is positive but not statistically significant at any conventional level. Results suggest that mandating a minimum for negotiated cash trade will not necessarily translate to a smaller spread between cattle prices and wholesale beef prices. Our findings do not support arguments that AMAs allow for beef packers to exert market power and increase beef margins (Pendell, Schroeder, and Knoeber, 2003).

Findings are consistent with previous estimates in the literature. Pendell, Schroeder, and Knoeber (2003) do not find that marketing agreements and forward contracts have increased the beef marketing margin. Ward, Koontz, and Schroeder (1998) find that beef packer use of AMAs has no significant effect on fed cattle cash prices. The main finding from Muth et al. (2007) was that fed cattle price declines stemming from AMA use and market power were far outweighed by AMAs' benefits to the cattle industry.

Policy Implications. As noted earlier, there are known costs associated with negotiated cash trade mandates. Participating in the negotiated fed cattle market takes significant time and effort. The value of time and effort is higher today than ever, which will contribute to transaction costs being higher than what recent estimates might suggest. It takes two to negotiate, and beef packers and feedlots will both have higher costs if they are mandated to negotiate more of their transactions.

In contrast with the known costs associated with increasing negotiated trade, the benefits of such an increase are mostly speculative. In terms of the key issue of cattle prices and farm-to-wholesale price spreads, the evidence of this study suggests that increasing negotiated trade provides no benefit at all. Estimates show that changes in the volume of negotiated cash trade do not affect fed cattle prices. The farm-to-wholesale beef marketing margin does not change in response to changes in the volume of negotiated trade. Our results suggest AMAs do not allow beef packers to increase beef margins and lower cattle prices.

The result of no statistically significant relationship between the volume of negotiated transactions and fed cattle price and marketing margins should not be a surprise. The behavior of fed cattle prices and marketing margins is an issue of price determination; that is, whether these values are high or low is determined by fundamental supply and demand conditions in the farm and wholesale markets. Based on this fact, we would not expect to find a significant relationship between fed cattle prices, marketing margins, and negotiated trade volume: how fed cattle trade hands does nothing to alter the underlying supply/demand balance in the market. That is not to say, however, that the means by which cattle trade hands is entirely insignificant.

Price discovery is the process by which information gets incorporated into prices. Buyers and sellers of a commodity perform the price discovery task. It is how they arrive at a price on a specific transaction. The volume of trades through specific pricing mechanisms may not affect underlying market fundamentals, but it is an important element of price discovery. The potential impact of AMA use on price discovery is explored in greater detail in the following section.

AMAs and Price Discovery

While AMAs provide direct benefits to the market participants who use them and, as noted earlier, indirect benefits to the broader industry as a result of clearer price signals, from virtually their first appearance AMAs have raised concerns within the cattle industry. Much of the early discussion related to AMAs focused on "captive supplies" (i.e., cattle committed to packers well in advance of slaughter) and the impact that these committed cattle had on the bargaining position of cattle feeders (see, for example, Ward et al., 1996c). Koontz (2021) notes that the term "captive supplies" is something of a misnomer in that feedlots actually retain control of AMA cattle; that is, the feeder has discretion over which week to market cattle, with packers only deciding which day of that week to schedule delivery. Koontz further notes that to the extent AMAs reduce the demand by packers for cattle in any given week, those arrangements also reduce the available supply by that same amount, leaving the supply/demand balance in the market essentially unaffected.

While concern over the market power effects of AMAs has not entirely gone away, the focus of arguments for restricting their use has shifted to the issue of their impact on price discovery. This focus is not entirely new. Early in the AMA era, Schroeder et al. (1998) noted the potential for price discovery to be degraded by AMA use if the cattle traded through AMAs were substantially different from cattle traded through direct negotiation. Concern about the impact of AMA use on price discovery has increased as the volume of AMA trades has grown to dominate the market. AMAs typically use some prior negotiated price (e.g., last week's negotiated live price for the reporting region in which the cattle are located) as the base price in formula calculations (Coffey, Pendell, and Tonsor, 2019). Thus, as the volume of negotiated trade dwindles, fewer and fewer and negotiated transactions are leveraged into more and more AMA transactions. In other words, a large volume of AMAs depends on the price discovery taking place in a relatively small volume of negotiated transactions; AMAs don't contribute to this price discovery but depend on it being done in the negotiated market. This situation raises the possibility that any pricing inefficiencies in the thinner and thinner negotiated market will be propagated much more widely due to AMAs, potentially leading to the mispricing of cattle and the consequent misallocation of resources (Adjemian et al., 2016).

The conceptual case for price discovery issues in the fed cattle market as negotiated transactions decline (referred to as a thinning market) is straightforward; however, whether or not the market actually manifests problems with price discovery is an empirical question – one that has been widely investigated over several years by many highly-qualified researchers using a variety of different methods and data. This work has yet to yield consistent evidence of price discovery problems in the fed cattle market (Crespi, Saitone, and Sexton, 2012; Brorsen, Fain, and Maples, 2018).

Most recently, Anderson, McKenzie and Mitchell (2021) show that that all five Livestock Mandatory Price Reporting regions respond to new supply and demand information in a manner consistent with active price discovery – that is, prices adjust quickly and consistent with the expectations of economic theory in response to new information. Using an event study approach, negotiated cash trade price reactions were measured around the release of *Cattle on Feed* (*COF*) reports, which contain supply and demand information about cattle on-feed, placements and marketings. New information in the reports, is measured as the percentage difference between the USDA numbers and the median private market analyst forecasts for on-feed inventory, placements, and marketings with respect to each monthly report. These differences are referred to as shocks. By isolating specific supply and demand shocks, Anderson, McKenzie, and Mitchell (2021) are able to examine the extent to which market prices respond in a rational manner consistent with effective price discovery.

Given that the percentage volume of negotiated cash transactions in the Texas/Oklahoma/New Mexico region has decreased dramatically since 2014, one part of the analysis analyzed differences in price reactions over two sample periods: (1) between January 2004 – December 2013 and (2) between January 2014 – December 2020. In addition, the analysis focuses on clear and unambiguous supply and demand news. This is achieved by including only observations for months when positive placement shocks are simultaneously observed with negative marketings shocks (bear market shocks); and when negative placement shocks are simultaneously observed with positive marketings shocks (bull market shocks). The main results of the analysis are most easily seen in tables 5 and 6, which present correlations between weekly price changes across the five regions and on-feed, placement and marketing shocks. Table 5 reports correlations for the January 2004 – December 2013 sample period and table 6 reports correlations for the January 2014 – December 2020 period. The most noticeable

difference is that the correlations between placement and marketings surprises and all regional cash prices has doubled over the more recent 2014 – 2020 period. All of the regional cash markets are now more responsive than ever to unambiguous price signals contained in *COF* reports. Also, the fact that weekly price changes over both sample periods are highly correlated across regions (0.9 or higher) indicates that the markets respond in similar manner to new information – irrespective of the percentage of negotiated trades to overall transactions.

In summary, despite the thinning of the fed cattle market (in terms of negotiated trade) evidence to date suggests that price discovery continues to function quite well, even in the southern Plains. To an academic investigator, this result is not all that surprising: evidence from other agricultural markets suggests that if transactions are reasonably representative of the market as a whole, even a very small volume of trade can result in effective, efficient price discovery (Tomek, 1980; Franken and Parcell, 2012; Adammer, Bohl, and Gross, 2016). By contrast, market participants who have seen transparent negotiation erode to a fraction of past levels seem to find that result difficult to fathom.

Price Discovery, Negotiated Cattle Trade and Public Goods

The central role that negotiated transactions play in pricing fed cattle more broadly through AMAs highlights the public good character of price discovery. Market information, specifically including prices, has long been recognized as possessing elements of a public good (Riemenschneider, 1977). In brief, a public good has the characteristics of non-excludability and non-rivalry: that is, it is impossible to exclude someone from the consumption of the good, and one person's consumption of the good does not negatively impact another's consumption of the good (Samuelson, 1954). Because of these characteristics, public goods are subject to the free rider problem: people using the good without contributing to its provision. Consequently, these goods tend to be provided at considerably less than the socially-optimal level in the absence of some intervention in the market.

With respect to the fed cattle market, there seems to be increasingly sharp disagreement over what, specifically, is the relevant public good associated with negotiated trade. Is the relevant public good the function of price discovery performed through negotiated trade, or is it rather the negotiated trade, *per se*? This is more than semantic hair-splitting; the distinction has vital policy implications.

If the function of price discovery is the public good that matters with respect to fed cattle markets, then as long as price discovery is efficiently taking place, no compelling justification for intervention in the market exists: the public good of interest is being adequately provided. The effectiveness of price discovery can be measured reasonably objectively. Indeed, that has been the focus of much of the work already cited here; work that has generally concluded that thin fed cattle markets still discover prices quite efficiently. On the basis of that work, and with price discovery as the public good in view, policy prescriptions aimed at increasing negotiated trade appear quite beside the point.

On the other hand, if negotiated trade itself is the relevant public good (irrespective of the quality of the resulting price discovery), then the case for market intervention is easier to make: if negotiated trade volume is too low, market intervention is justified. The operational deficiency of this position is immediately obvious: "too low" is a thoroughly subjective concept. In the absence of some kind of objective standard, defining a threshold for negotiated trade is an inherently political rather than scientific exercise. The strong support for a policy mechanism to increase negotiated trade suggests that this view of negotiated trade as a public good is widespread within the industry.

Implications of the Cattle Price Discovery and Transparency Act

Given the evident political imperative to increase negotiated fed cattle trade as a public good in and of itself, some approach to addressing the subjective establishment of negotiated trade volumes is necessary. The bill under consideration here is somewhat vague on how minimum volumes will be set, but the volume in each region will be no lower than the average negotiated trade volume over the past 18 months, with the additional requirement that the minimum volume in any region not exceed 300% of the minimum volume in the lowest region.

As has been widely discussed within industry and policy circles, the use of AMAs varies considerably across the five reporting regions, with AMAs used much more in the southern Plains (TX/OK/NM and KS) than in the Corn Belt (IA/MN and NE). Figure 4 shows the average percentage of fed cattle transactions by transaction type for all AMS reporting regions, excluding Colorado, over the 18 months ending November 2021.[4] Over the most recent 18-month period, negotiated trade in the southern Plains regions has been quite sparse: 12 percent of transactions in TX/OK/NM and 19 percent in KS. Negotiated trade remains a large share of transactions in NE at 38 percent and a majority share, by a substantial margin, in IA/MN at over 60 percent of transactions.

Based on the numbers in Figure 4 and a straightforward reading of the CPDTA, the minimum volume of negotiated trade could be no lower than 12% in TX/OK/NM and 19% in KS. Assuming those minimums were applied (not a given, as the bill would permit a higher threshold than the 18-month average), the minimum volume of negotiated trade in NE and IA/MN would then be capped at 36% (i.e., 300% of TX/OK/NM). At the regional level, this approach merely locks in the status quo for negotiated trade. However, enforcement of trade volumes is applied at the plant level. This creates the potential for significant market disruption from the bill's implementation, even at the minimum levels described here. For example, a packer operating a plant on 100% formula cattle in the NE or IA/MN regions would have to shift over a third of that plant's throughput to negotiated trade in order to comply with terms of the bill.[5]

It is difficult to quantify the cost of CPDTA without knowing more specifically how it would be implemented. Without question, the bill will lead to an increase in costs in the industry. Even in regions where minimum negotiated volumes will be set below current regional negotiated trade averages, individual plants will still likely be forced to alter their purchasing practices. This will lead to higher transactions costs for those plants. Ironically, if the bill is implemented with negotiated transaction levels established at or very near 18-month averages, it may actually end up being more disruptive in the Corn Belt than in the Southern Plains because of these plant-level effects. Imagine, for example, the case of a Texas plant and an Iowa plant both operating on 100% AMA cattle. The former plant would have to adjust to purchasing something like 12% of its cattle via negotiated trade; the latter plant would have to adjust to purchasing something like 36% of its cattle through negotiation. In short, it is not

[4] Colorado fed cattle transactions have been sparsely reported in recent years due to USDA confidentiality restrictions on data release. The incompleteness of the public data makes it impossible to calculate transaction type percentages for this region with any degree of accuracy.

[5] The bill includes an exception to these provisions for firms operating a single packing plant. A single plant firm could, conceivably, operate on 100% formula cattle in any region regardless of minimum thresholds for negotiated trade established under the terms of this bill.

inconceivable that the cost of the bill could be higher in regions that are currently already trading a relatively large number of negotiated cattle.

Taking a longer view of the situation, the CPDTA runs the risk of stifling further innovation in pricing mechanisms in the fed cattle sector. As already noted, at their inception, AMAs represented an innovation in marketing that greatly improved the quality of price signals in the beef supply chain and facilitated a number of changes in production practices at all levels of the industry that have improved beef quality and consistency and thereby supported beef demand. By privileging an average pricing system in the sector, the CPDTA makes it less likely that further such innovations will be pursued. The implications of this situation are not insignificant. Beef already faces a significant price disadvantage in the broader meat sector relative chicken and pork. Innovations that might further reduce transactions costs and/or support further production changes to more closely align the beef end product with consumer tastes and preferences could be beneficial to maintaining and even growing beef demand in the future. The history of average pricing in the industry suggests that such innovations are probably less likely under the terms of the CPDTA. By contrast, the chicken and pork sectors have a long history of relentlessly pursuing such innovations.

Specific provisions of the CPDTA may also influence investment decisions in the sector. For example, a multi-plant packer deciding where to expand may well consider CPDTA provisions in that decision, likely being biased toward the region allowing the most flexibility in choice of transaction types. Similarly, a single-plant packer interested in expanding may be discouraged from adding a plant in order to avoid complications related to CPDTA compliance for multi-plant firms.

While the costs of the CPDTA may be difficult to accurately quantify, there are certain to be some costs – if only (in the short run) higher transactions costs at plants affected by minimum negotiated trade thresholds. The benefits of the bill are more difficult to identify even conceptually. As discussed previously, proponents of more negotiated trade clearly see negotiated trade as a good, *per se*. Thus, to its proponents, more negotiated trade is the primary, and likely sufficient, benefit of the bill. In the absence of any existing identifiable problem with price discovery, though, it is difficult to assign a pecuniary value to more negotiated trade. This is not to deny that more negotiated trade has real value to some market participants. Clearly, some people in the cattle industry will have greater confidence in reported prices if those prices include more negotiated trade; some will also feel more secure in their position in the market relative to their customers (i.e., packers) if more negotiated trade is taking place more regularly. For those market participants (and this clearly includes a significant number of cow/calf producers, stocker operators, and cattle feeders), the value of more negotiated trade is very real. It is also, however, just about entirely subjective. Such benefits, while important to consider in any policy discussion, are exceedingly difficult to quantify. This leaves the industry (and policy makers) in the uncomfortable position of having to evaluate tangible costs against intangible benefits. Unfortunately, the tools of economic analysis are not particularly well-suited to that sort of comparison.

Impact on Arkansas and other Cow/Calf States in the Southeast

CPDTA has the potential to impact the Arkansas cattle industry in three ways:

1. Feeder cattle prices,
2. Cattle quality, and
3. Industry size and structure.

This section provides a discussion on each of these potential impacts.

With respect to its beef industry, Arkansas is primarily a cow/calf state. While a significant number of the state's producers background stocker cattle (both home-raised and purchased stocker cattle from in-state and out-of-state), virtually all of these animals leave the state as feeder cattle for finishing and slaughter in one of the major feeding regions. USDA 2017 Census of Agriculture data for Arkansas report over 25,000 farms with cattle but no commercial feedlots.

Information on where the state's cattle go for finishing is limited.[6] However, given the state's orientation to primary transportation routes as well as the compatibility of the state's cattle with Southern Plains feeding systems, it would make sense that a substantial majority of the state's cattle go on feed in the TX/OK/NM and KS feeding regions. Anecdotal evidence from industry participants supports this conclusion. This means that Arkansas cattle are fed in regions where AMA's represent the dominant pricing mechanism – recall that negotiated transactions have accounted for less than 20% of total fed cattle transactions in these two regions over the most recent 18 months.

If AMA use in the Southern Plains is restricted, the most likely immediate outcome is that transactions costs related to negotiated exchange between feeders and packers will go up. The lion's share of this increase in costs will most likely be borne by cow/calf and stocker producers in the form of lower feeder cattle prices. The magnitude of this impact will depend on the extent to which AMA use is restricted. If transaction types are locked in at essentially the status quo, impacts are likely to be small; however, the more restrictive the mandate on AMA use, the larger the impact will be.

Given the uncertainty over how CPDTA would ultimately be implemented, it is difficult to quantify the cost of the bill with any degree of accuracy. In assessing the value of AMAs generally, Anderson, Martinez, and Benavidez (2021) apply Koontz's (2020) conservative estimate of a $25 per head for the value of AMAs to an equilibrium displacement model, calculating that the loss of AMAs would result in declines in stocker and feeder calf prices of $2.62/hundredweight (cwt) and $2.32/cwt, respectively. These price declines represent a 1.6% drop from the 2019 base price used in their analysis.

Assuming a 1.6% decline in value of production is reasonably consistent over time and applying that level of loss to USDA's value of production estimates by state, the decline in value from the loss of AMAs over the five-year period ending with 2020 would have averaged about $6 million per year for the state of Arkansas. Figure 5 shows hypothetical average annual losses for the primarily cow/calf producing southeastern region (AL, AR, FL, GA, KY, LA, MS, MO, NC, SC, TN, VA). The combined average annual loss in value across all 12 of these states would be just under $93.8 million per year.

Another way to look at the potential effects of CPDTA on Arkansas cattle prices is to examine the correlation between Arkansas prices and negotiated trade in the fed cattle market (Figures 6 and 7).

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[6] Shields and Matthews (2003) conducted a deep-dive into interstate livestock shipments using data from the early 2000s. They reported that 57% of cattle shipped from the Delta states (Arkansas, Texas, and Oklahoma) went to Texas and Oklahoma. Another 21% went to the Northern Plains, which in their classification scheme included Kansas. Only about 3% went to the Corn Belt or Lake State (Iowa and Minnesota). This information is somewhat dated. The rise in Corn Belt feeding that accompanied the growth of ethanol production in the Corn Belt may have led to some increase in shipments of Arkansas cattle to Midwest feedlots, but the general pattern of cattle shipments should not be dramatically different from this early 2000s data. In fact, Gorsich et al. (2016) conduct a similar analysis using data from 2009 to 2011 and report results consistent with Shields and Matthew, locating Arkansas within a cattle shipment network including, primarily, Texas, Oklahoma, and Kansas.

Figure 6 shows the correlation between Arkansas calf prices and volume of negotiated trade in the five regional fed cattle markets. A 1% increase in negotiated fed cattle trade is associated with a $0.46/cwt decline in Arkansas calf prices. The Arkansas 2020 calf crop was 780,000 head (USDA-NASS, 2021). Increasing negotiated fed cattle trade by 1% is associated with a $1.974 million per year decline in Arkansas calf value. Figure 7 shows the correlation between Arkansas feeder cattle prices and fed cattle negotiated trade volume. A 1% increase in negotiated fed cattle trade is associated with a $0.37/cwt decline in Arkansas feeder cattle prices. Feeder cattle supplies as of January 2021 totaled 619,000 head in Arkansas (USDA-NASS, 2021). Increasing negotiated fed cattle trade by 1% is associated with a $1.712 million per year decline in Arkansas feeder cattle value. Combined the effect is about a $4 million decline in the value of Arkansas cattle. Estimates are simple correlations and should be interpreted with care.

Beyond the immediate price and farm income effects, CPDTA could have important implications for beef and cattle quality improvements. Changes in overall cattle and beef quality do not happen quickly. Figure 8 shows that it has taken the cattle industry twenty-five years for beef to consistently grade 80% choice or higher. Year-over-year improvements in quality grade started in the mid-2000s when AMAs became a widely used method for pricing cattle. Most AMAs involve some kind of grid pricing structure to reward superior carcass merits. If AMAs are restricted, cattle feeders' ability to capture the value of superior cattle will likely be reduced. To the extent that cattle feeders lose the ability to capture the value of superior quality animals, their willingness to pay more for these animals as feeder cattle will be diminished.

Beef and cattle quality improvements result, in large part, from long-term changes in herd genetics – changes that involve significant capital investment. Seedstock operations supply commercial cow-calf producers with genetics. Arkansas cattle come from a wide diversity of cattle breeds. The genetic diversity in the Arkansas cow herd is most noticeable as you go from the Ozark Mountains of northwest Arkansas, through the Ouachita Mountains region of central Arkansas, into the humid subtropical region of southern Arkansas. Arkansas has a significant number of seedstock operations that supply genetics to the commercial cow-calf operations in the state. Their business model is to produce genetics for a cow that will thrive in Arkansas and a calf that will perform in the feedlot. To the extent that CPDTA moves that industry away from AMAs and back to average pricing, in the long run, there will be a disincentive to make significant investments in herd genetics that support a high-quality end product. Again, it is hard to know the size of the costs, but Arkansas seedstock producers will bear a significant share of those costs.

Finally, there are also concerns about what CPDTA could do to the size of the beef cattle industry. As has already been described, AMAs allow beef packers and feedlots to maximize throughput. Using AMAs, beef packers can secure and coordinate supplies more effectively. For example, AMAs allow a beef packer specializing in producing beef for certified beef programs like Certified Angus Beef and Non-Hormone Treated Cattle Program to secure program cattle supplies quickly and in large numbers. Similarly, AMAs provide a known buyer and advanced commitment of fed cattle for feedlots. AMAs enhance supply chain coordination for feedlots, allowing for effective management of feeding capacity, pen space, and feeder cattle procurement.

CPDTA will force feedlots and beef packers to negotiate – that is what it is designed to do. For both, throughput will decline as costs go up, and eventually, processing and cattle feeding capacity will be

reduced. Beef packers can no longer process cattle as quickly in as large of numbers. It will take feedlots longer to manage fed and feeder cattle supplies. Simply put, CPDTA will raise costs and delay supply chain coordination. Both impacts point towards a smaller beef cattle industry, which translates to a smaller Arkansas cattle herd. It is hard to know how a declining beef cattle industry will impact specific states. However, unlike the Plains States, whose agricultural land has alternative uses, much of the cattle production land in Arkansas has no competing agricultural use. There is a reason why crops are not grown in the Ozark Mountains. It is, therefore, reasonable to expect CPDTA to impact Arkansas land values disproportionately relative to states with more flexible agricultural land use options.

A Market Maker Mechanism as an Alternative to Required Trade Minimums

The stated intent of the CPDTA is to ensure that all fed cattle market participants contribute to "sufficient levels" of negotiated trade. By requiring all plants to purchase some minimum volume of cattle through negotiated transactions, the bill likely will ensure that a large majority of market participants engage in negotiated trade. It is not clear that this will improve price discovery, but to the extent that industry participants feel that negotiated trade is itself a public good, the bill likely will increase the provision of it. It is worth considering, though, if there might be a less disruptive means of achieving this same goal.

The primary disruption likely to arise from the bill as proposed is that sellers will lose access to an existing AMA as packing plants are forced to purchase a minimum volume of negotiated cattle. A feeder sending cattle to a plant under a specific AMA may well see volume on that AMA capped so the plant can fulfill its negotiated trade requirements. If that AMA represents the best market outlet for those cattle, the feeder will realize a loss by shifting those cattle to the next best alternative pricing mechanism (negotiated trade with the original or a different plant or a different AMA with another plant). That loss will be greater if cattle have been managed for optimal market performance through that specific AMA (e.g., fed to a higher quality grade endpoint at the expense of a lower yield grade). Longer-term planning of market outlets will likely be made at least a bit more difficult under the terms of this bill.

Ideally, the mechanism for increasing negotiated trade would be flexible enough to leave the decision of how to market fed cattle entirely in the hands of cattle feeders, which may not be the case with plant-specific volume requirements. A market maker approach could offer that flexibility. In a securities exchange, a market maker is a trader who provides liquidity to the market, making it possible for other market participants to trade in a timely fashion (Baldacci, Possamai, and Rosenbaum, 2021). In general, the exchange administers a maker-taker compensation structure in which one providing liquidity (maker) receives compensation while one using liquidity (taker) is charged a fee. In broad strokes, such a model would seem relevant to the current situation in the fed cattle market: those contributing to negotiated trade could be compensated through a fee applied to those benefitting from but not contributing to negotiated trade (AMA users). The primary impediment to the application of this model would appear to be the lack of a central exchange to implement and administer this system (e.g., identifying market makers, developing a fee structure, collecting and distributing fees as appropriate).

The administration of a market maker program would not be unlike what USDA Agricultural Marketing Service does in a number of its marketing order and agreement programs related to dairy products and

specialty crops.[7] A marketing order to administer a market maker program in the cash fed cattle market could operate within the existing market reporting regional structure. After a reasonable period to gain experience with the program, it could be either confirmed or discontinued based on a referendum of market participants. Most importantly, it would provide a mechanism for increasing negotiated trade with maximum flexibility for cattle producers.

Since the fed cattle marketing decision resides with the cattle feeder, a market maker program would focus on cattle feeders. A basic market maker program would assess a fee on AMA cattle that would be used to provide compensation on negotiated cattle. It would be possible to establish a graduated fee structure such that fees would be higher the lower the volume of negotiated trade. Beyond some critical threshold, no fee would need to be assessed. Cattle feeders could offset their AMA cattle at a pre-determined ratio by selling negotiated cattle: for example, each negotiated head sold could reduce the number of AMA cattle assessed a fee by five (i.e., a 1:5 ratio). Table 7 summarizes the terms of a hypothetical market maker program. [8]

It is possible to illustrate the operation of the program using historic data on fed cattle transactions types. Such an illustration does not represent an adequate analysis of the program as decisions regarding whether cattle would be sold on a negotiated or AMA basis would change under a market maker program relative to what occurred over the period. Clearly, the market maker program itself would change fed cattle marketing decisions; it is intended to do so. A thorough analysis of a program like this is beyond the scope of this review, requiring a structural model of the fed cattle market with separate supply and demand functions for negotiated versus AMA cattle in order to determine the impact of the program on sale/purchase decisions. An illustration is instructive, though, to demonstrate both how the payment mechanism would function and what maker-taker fees might amount to in hypothetical situations that are reasonably represented in the historic data.

Program parameters from Table 7 were applied to weekly fed cattle sales by transaction type for the TX/OK/NM region from 2017 through 2021 (a five-year time series) to illustrate how the program might operate. Table 8 summarizes the results of this exercise.

Over the five years illustrated here, the hypothetical Market Maker program described in Table 7 would have paid an average of over $9 per head on each head sold in a negotiated transaction. The maximum per head payment would have been over $40 per head in a week in which AMA sales accounted for around 90% of the week's volume. In only three weeks would the market maker payment have been zero. Figure 9 shows the full series of weekly payments calculated in this illustration. Given the flexibility offered via a market maker program, the program provides an estimate of the cost of negotiated trade that would vary given seasonality, total cattle supplies, and region of the country.

Of course, different market maker program parameters could yield very different results. If more than 25% of negotiated cattle came from AMA sellers, reducing the number of cattle on which an assessment would be charged, a higher maker-taker payment rate would be needed to provide the same per head payment. For example, if 40% of negotiated cattle came from AMA sellers, the maximum payment rate

[7] For more information on existing marketing orders and agreements administered by USDA Agricultural Marketing Service, see https://www.ams.usda.gov/rules-regulations/moa.

[8] Peel et al. (2020) includes a market maker example. The example presented here draws from that example and provides an application using TX/OK/NM data from 2020.

would need to be just under $1.10 to provide the same $9.50 average payment as calculated in Table 8. Taking a different approach, if we assume that AMAs are worth an average of about $25 per head to feeders who are using them (*pace* Koontz, 2020), we can estimate the payment rate that would split that value evenly between AMA users and non-users: that is, the payment rate that would result in a maker payment averaging $12.50 per head. Using the same assumptions as in Table 7, that maximum payment rate would be $1.32.

The illustrations presented here clearly demonstrates that a relatively modest assessment on AMA cattle in a market like TX/OK/NM could provide a substantial incentive to negotiated sellers and provide an economic signal for more negotiated trade without a mandate. Government incentives could be included in a market maker program to also help incentivize larger cash trade. Of course, in a market like IA/MN that is already dominated by negotiated sales, such a program would offer much smaller payments, even if program parameters were changed considerably, because collections from a relatively small number of AMA cattle would be distributed across a relatively large number of negotiated cattle. (Rather than concentrating receipts from a larger group into payments to a smaller group, receipts from a smaller group would be diluted across a larger group.) This is not a flaw in the operation of the program: the program is intended to incentivize negotiated trade where little is taking place. This likely would, however, present a challenge in terms of generating industry support for such a program operating within individual reporting regions.

The primary advantage of a program similar to that outlined here, as opposed to mandated negotiated trade minimums, is that it leaves cattle producers in control of how to market their cattle. With reference to the first example above, if a cattle owner determines that continuing to sell cattle on a particular AMA is worth more than, on average, about $9 per head, he or she can continue with that marketing program. There is no possibility that the packing plant will have to decline to purchase cattle via that mechanism. On the other hand, if the cattle owner decides that the value of AMA participation is, on average, less than about $9 per head, he or she may opt to shift those cattle to negotiated trade. In short, this type of program would allow cattle producers to continue to select the marketing outlet that works best for their cattle while appropriately accounting for the public good value that the industry associates with a higher level of negotiated trade. In other words, cattle feeders will be free to direct cattle to where their combined private/public value is the highest.

The maker-taker payment rate provides a simple means of adjusting the program to move the industry toward its desired balance among transaction types: if the value associated with AMA participation is higher than assumed here, a higher rate can be applied to increase the effective compensation for giving up AMA participation in favor of negotiated trade. There may be alternative means of effecting the same outcome that are even simpler in terms of formal structure than a market maker program. For example, a designated tax could be applied to AMA sales (effectively an excise tax on AMA-purchased cattle). Alternatively (or, more likely, in conjunction) a refundable tax credit could be attached to negotiated cash sales. This tax/subsidy approach could be used to provide essentially the same incentives as a market maker program, though a market maker program would likely be superior in terms of being able to more quickly adjust the maker-taker payment structure as well as in having a mechanism in place (assuming implementation as a market order/agreement) to assess market participant support for the program.

References

Adammer, P., M. T. Bohl, and C. Gross. 2016. "Price Discovery in Thinly Traded Futures Markets: How This is Too Thin?" *Journal of Futures Markets* 36:851-869.

Adjemian, M. K., B. W. Brorsen, W. Hahn, T. L. Saitone, and R. J. Sexton. 2016. *Thinning Markets in U.S. Agriculture*. EIB-148. Washington, DC: U.S. Department of Agriculture, Economic Research Service.

Anderson, D. P., C. C. Martinez, and J. R. Benevidez. 2021. "Implications of Fed Cattle Pricing Changes on the Cow-Calf Sector." In *The U.S. Beef Supply Chain: Issues and Challeges*, eds. B. Fischer, J. Outlaw, D. Anderson. College Station, TX: The Agricultural and Food Policy Center. Available online at https://www.afpc.tamu.edu/research/publications/710/cattle.pdf. Accessed on December 22, 2021.

Anderson, J. D., A. M. McKenzie, and J. L. Mitchell. 2021. "Price Determination and Price Discovery in the Fed Cattle Markets: A Review and of Economic Concepts and Empirical Work." In *The U.S. Beef Supply Chain: Issues and Challeges*, eds. B. Fischer, J. Outlaw, D. Anderson. College Station, TX: The Agricultural and Food Policy Center. Available online at https://www.afpc.tamu.edu/research/publications/710/cattle.pdf. Accessed on December 22, 2021.

Anderson, J.D., J.L. Mitchell, and J.G. Maples. 2021. Invited Review: Lessons from the COVID-19 Pandemic for Food Supply Chains. *Applied Animal Science* 37(6): 738-747.

Baldacci, B., D. Possamai, and M. Rosenbaum. 2021. "Optimal Make-Take Fees in a Multi Market-Maker Environment." *SIAM Journal on Financial Mathematics* 12:446-486.

Bastian, C. 2021. "Cattle Market Risks and Their Effect on Price Discovery." PD-2021-06. In *Cattle Markets, Price Discovery, and Emerging Issues*, ed. J. Anderson. Denver, CO: Livestock Marketing Information Center, December. Available online at https://www.lmic.info/sites/default/files/how%20risks%20affect%20price%20discovery%20lmic%20Bastian%20PD06.pdf. Accessed on December 22, 2021.

Brester, G.W. and J.M. Marsh. 2001. The Effects of U.S. Meat Packing and Livestock Production Technologies on Marketing Margins and Prices. Journal of Agricultural and Resource Economics 26(2):445-462.

Brorsen, B. W., J. R. Fain, and J. G. Maples. 2018. "Alternative Policy Responses to Increased Use of Formula Pricing." *Journal of Agricultural and Food Industrial Organization* 16: 1-11.

Coffey, B. K., D. L. Pendell, and G. T. Tonsor. 2019. "Contemporaneous and Lagged Causal Relationships among Negotiated Live Cattle Cash Markets." *Journal of Agricultural and Applied Economics* 51, 1: 182-198.

Crespi, J. M., T. L. Saitone, and R. J. Sexton. 2012. "Competition in U.S. Farm Product Markets: Do Long-Run Incentives Trump Short-Run Market Power?" *Applied Economic Perspectives and Policy* 34: 669-695.

Franken, J. R. V. and J. L. Parcell. 2012. "Evaluation of Market Thinness for Hogs and Pork." *Journal of Agricultural and Applied Economics* 44(November):461-475.

Gorsich, E. E., A. D. Luis, M. G. Buhnerkempe, D. A. Grear, K. Portacci, R. S. Miller, and C. T. Webb. 2016. "Mapping U.S. Cattle Shipment Networks: Spatial and Temporal Patterns of Trade Communities from 2009 to 2011. *Preventive Veterinary Medicine* 134(November): 82-91.

Koontz, S. R., 2020. "A Synthesis of the Costs and Benefits of AMAs to the Cattle and Beef Industry – White Paper." Unpublished, Colorado State University. Available from the author.

Koontz, S. R. 2021. "Another Look at Alternative Marketing Arrangement Use by the Cattle and Beef Industry." In *The U.S. Beef Supply Chain: Issues and Challeges*, eds. B. Fischer, J. Outlaw, D. Anderson. College Station, TX: The Agricultural and Food Policy Center. Available online at https://www.afpc.tamu.edu/research/publications/710/cattle.pdf. Accessed on December 22, 2021.

Morrison-Paul, C. J. 2001. "Market and Cost Structure in the U.S. Beef Packing Industry: A Plant-Level Analysis." *American Journal of Agricultural Economics* 83:64-76.

Muth, M. K., Del Roccili, J., Asher, M., Atwood, J., Brester, G., Cates, S. C., et al. 2007. *GIPSA Livestock and Meat Marketing Study*, Volume 3. Fed Cattle and Beef Industries. Washington DC: U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration and Research Triangle Park, NC: RTI International, January.

Peel, D. S. and J. Anderson. 2021. "How We Got Here: A Brief History of Cattle and Beef Markets." PD-2021-01. In *Cattle Markets, Price Discovery, and Emerging Issues*, ed. J. Anderson. Denver, CO: Livestock Marketing Information Center, December. Available online at https://www.lmic.info/sites/default/files/cattle%20market%20history%20Peel%20PD01.pdf. Accessed on December 22, 2021.

Peel, D. S., D. Anderson, J. Anderson, C. Bastian, S. Brown, S. R. Koontz, and J. Maples. 2020. *Fed Cattle Price Discovery Issues and Considerations*. E1053. Stillwater, OK: Oklahoma State University Division of Agricultural Sciences and Natural Resources.

Pendell, D.L., T.C. Schroeder, and P. Knoeber. 2003. Effect of Captive Supply on Farm-to-Wholesale Beef Marketing Margin. Western Agricultural Economics Association Annual Meeting. July 13-16, 2003. Denver, Colorado.

Riemenschneider, C. H. 1977. "Economic Structure, Price Discovery Mechanisms and the Informational Content and Nature of USDA Prices." In *Proceedings of a Workshop on Agricultural and Rural Data*, Series A. Washington, DC: USDA Statistical Reporting Service, May.

Samuelson, P. A. 1954. "The Pure Theory of Public Expenditure." *The Review of Economics and Statistics* 36(November):387-389.

Schroeder, T. C., C. E. Ward, J. Mintert, and D.S. Peel. 1998. "Beef Industry Price Discovery: A Look Ahead." Research Bulletin 1-98. Research Institute on Livestock Pricing. Department of Agricultural and Applied Economics, Blacksburg, VA: March.

Shields, D. A. and K. H. Matthews, Jr. 2003. *Interstate Livestock Movements*. LDP-M-108-1. Washington, DC: USDA Economic Research Service, June.

Tomek, W. G. 1980. "Price Behavior on a Declining Terminal Market." *American Journal of Agricultural Economics* 62(3): 434-444.

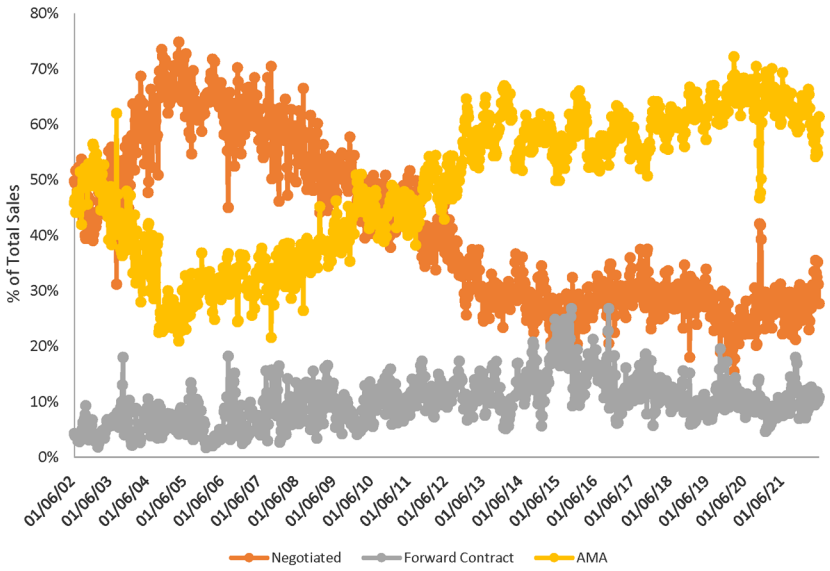
Ward, C. E., S. R. Koontz, D. S. Peel, and J. N. Trapp. 1996a. "Price Discovery in an Experimental Market for Fed Cattle." *Review of Agricultural Economics*. 18:449-466.

Ward, C.E., S.R. Koontz, and T.C. Schroeder. 1996b. *Short-Run Captive Supply Relationships with Fed Cattle Transaction Prices*. GIPSA-RR 96-3. Washington, DC: U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration, May.

Ward, C. E., T. C. Schroeder, A. P. Barkley, and S. R. Koontz. 1996c. *Role of Captive Supplies in Beef Packing*. GIPSA-RR 96-3. Washington, DC: U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration, May.

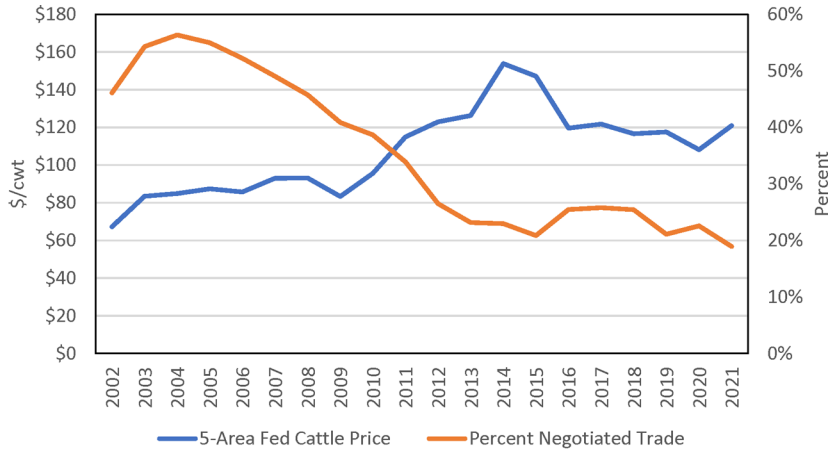
Ward, C.E., S.R. Koontz, and T.C. Schroeder. 1998. Impacts of Captive Supplies on Fed Cattle Transaction Prices. *Journal of Agricultural and Resource Economics* 23(2): 494-514.

Wohlgenant, M.K. and J.D. Mullen. 1987. Modelling the Farm-Retail Price Spread for Beef. *Western Journal of Agriculture Economics*. 12(2):119-125.



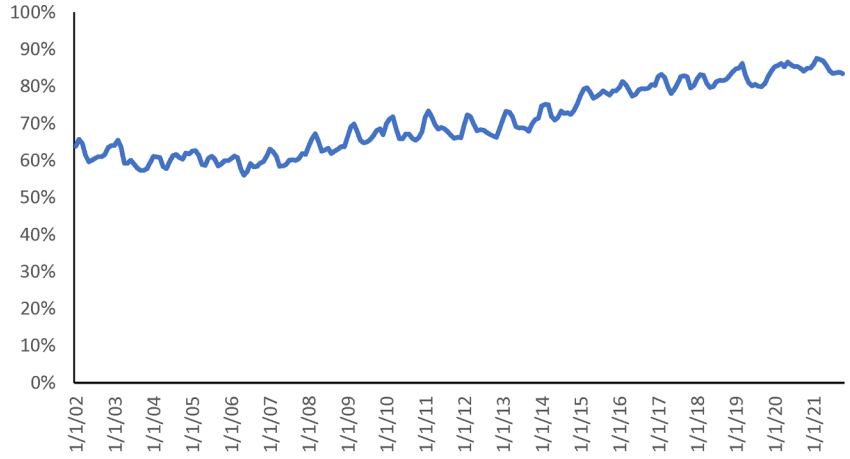
Notes: Negotiated transactions include negotiated grid transactions. Packer owned cattle not included in data.
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 1. Fed Cattle Transactions by Type: Weekly, 2002 through 2021



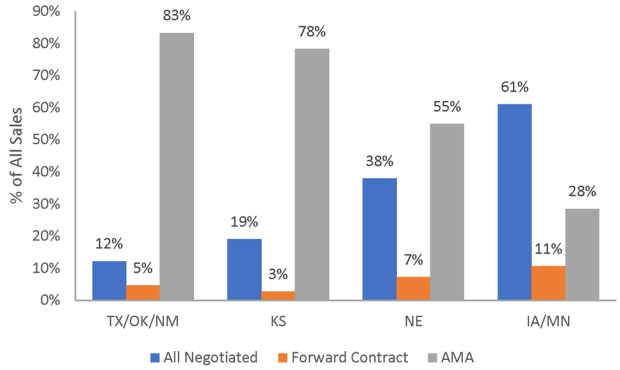
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center.

Figure 2. Annual average 5-market fed cattle prices and percent negotiated cash trade



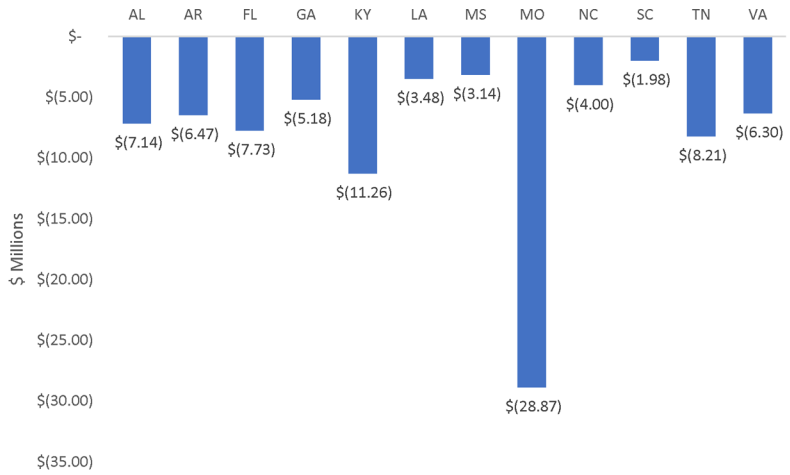
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center.

Figure 3. Fed Cattle Grading Choice or Prime as Percent of Total Slaughter: Jan 2002-Oct 2021



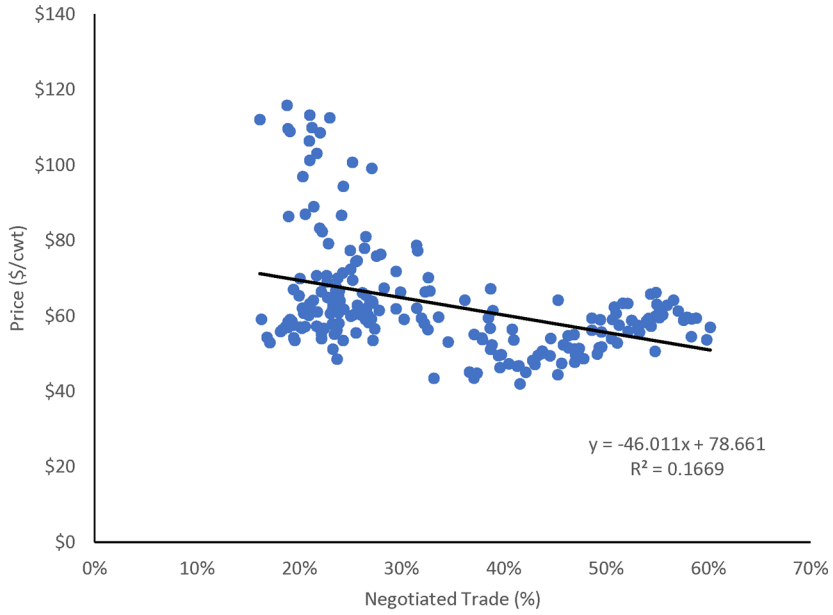
Notes: Negotiated transactions include negotiated grid transactions. Packer owned cattle not included in data.
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 4. Fed Cattle Transactions by Type and by USDA Agricultural Marketing Service Reporting Region: Average for 18 months ending with November 2021



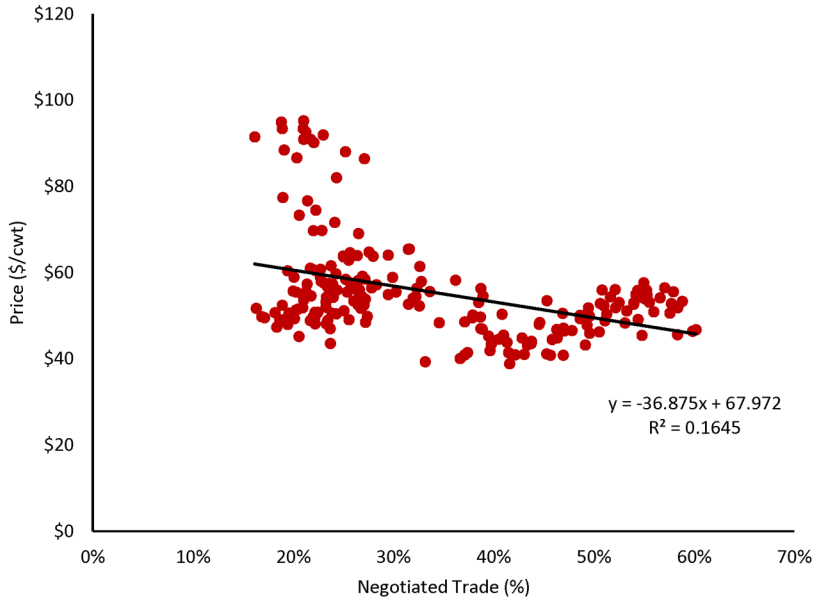
Notes: Decline in stocker and feeder cattle value estimated by Anderson, Martinez, and Benavidez (2021) applied to annual cattle value of production estimates from USDA-NASS for 2016-2020.

Figure 5. Annual Average Decline in Cattle Value of Production for Southeastern Cow/Calf States from the Loss of Alternative Marketing Arrangements



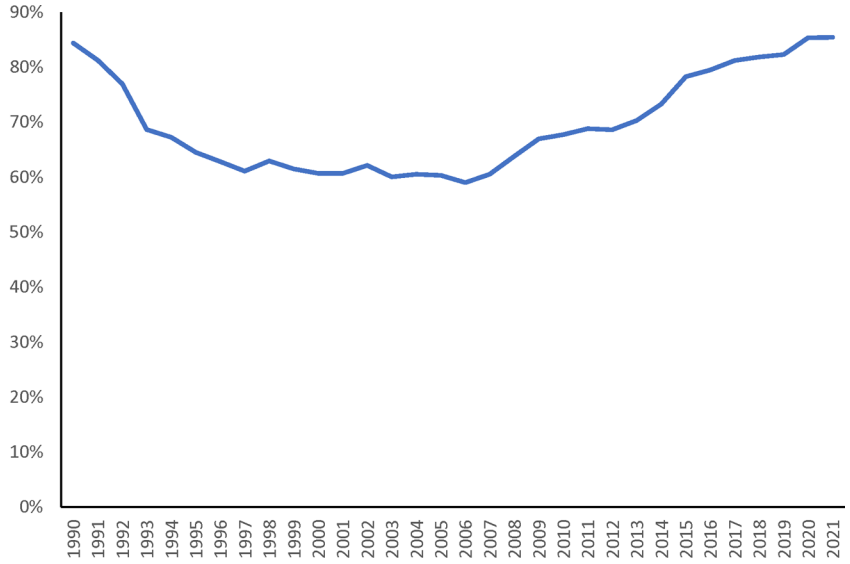
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 6. Relationship between Arkansas calf prices and negotiated cash trade in the 5-area fed cattle market. Prices for 500-600 lb. medium and large number 1 Arkansas steer calves.



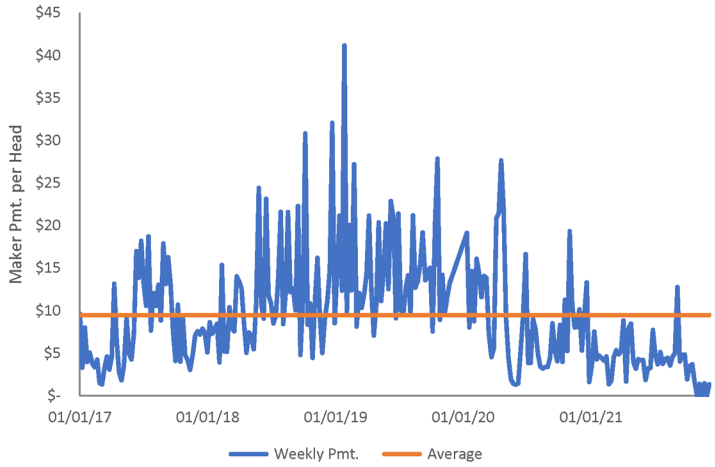
Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 7. Relationship between Arkansas feeder cattle prices and negotiated cash trade in the 5-area fed cattle market. Prices for 700-800 lb. medium and large number 1 Arkansas steer.



Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 8. Pounds of beef grading choice or prime as a percent of total pounds of beef produced, 1990-2021.



Data Source: USDA Agricultural Marketing Service through Livestock Marketing Information Center

Figure 9. Weekly Market Maker Program Payments (Hypothetical): TX/OK/NM, 2017-2021

Table 1. Variable Names and Descriptions

Symbol	Variable Name	Description
Margin	Farm-to-Wholesale Beef Margin	The choice boxed beef cutout value plus by-product value minus live fed cattle price ($ carcass weight basis).
PLive	Live fed cattle price	The 5-market weighted average live steer cattle price ($/cwt).
PDress	Dressed fed price	The 5-market weighted average dressed steer cattle price ($/cwt).
NTT	Percent negotiated trade	The number fed cattle that were negotiated transactions as a percent of the total number of fed transactions for 5-area markets (%).
NLT	Percent negotiated live trade	The number fed cattle sold on a live basis that were negotiated transactions as a percent of the total number of fed transactions for 5-area markets (%).
NDT	Percent negotiated dressed trade	The number fed cattle sold on a dressed basis that were negotiated transactions as a percent of the total number of fed transactions for 5-area markets.
SLTR	Steer and heifer slaughter	Federally inspected total number of steers and heifers that were slaughtered
BProd	Beef production	Per capita U.S. beef production (lbs. per capita)
PProd	Pork production	Per capita U.S. pork production (lbs. per capita)
YProd	Poultry production	Per capita U.S. poultry production (lbs. per capita)
MCI	Food marketing cost index	The index consists of 50% wages, 10% fuel, rubber & plastics, and general commodities and services, and 5% rent, taxes, interest and repairs (base=2011).
Wage	Wage index	Producer price index for wages (base=2011).
Cutout	Wholesale beef price	Boxed beef cutout value, Choice 600-900 lb. ($/cwt).
ByProduct	By-product value	Farm by-product values for beef (cents/lb.)
PFeeder	Feeder cattle price	Oklahoma City feeder cattle price for medium and large frame, no. 1, 700-800 lb. steers ($/cwt).
PCorn	Corn price	Nebraska average corn price ($/bu.
Choice	Percent choice	The percent of slaughtered steers and heifers that grade choice (%).
Carcass	Average carcass weight	Federally inspected Average dressed weight for steers (lbs.).

Table 2. Descriptive Statistics, N=247

Variable	Units	Mean	Std. Dev.
Margin	$ carcass wt. equivalent	88.97	62.10
PLive	$/cwt	47.26	7.56
PDress	$/cwt	75.05	12.02
NTT	%	0.36	0.13
NLT	%	0.63	0.13
NDT	%	0.22	0.12
SLTR	1,000 head	2178.95	202.59
BProd	Lbs. per capita, retail wt.	6.99	0.59
PProd	Lbs. per capita, retail wt.	6.22	0.59
YProd	Lbs. per capita, retail wt.	11.87	0.81
MCI	Index	96.33	16.93
Wage	Index	46.18	2.96
Cutout	$/cwt	81.01	13.14
ByProduct	Cents/lb.	51.23	9.78
PFeeder	$/cwt	61.37	13.24
PCorn	$/bu	1.69	0.65
Choice	%	0.65	0.07
Carcass	Lbs.	818.57	35.44

Note: Prices deflated to constant dollars (base=1982-84).

Table 3. Maximum Likelihood Estimation Results for the Effects of Fed Cattle Negotiated Trade Volume on Fed Cattle Prices

	Live Price Model		Dressed Price Model	
Variable	Estimate	Std. Err.	Estimate	Std. Err.
Intercept	39.237***	(9.833)	62.473***	(17.318)
Negotiated Live Trade %	1.039	(1.653)	-	-
Negotiated Dressed Trade %	-	-	2.654	(5.031)
Slaughter	0.000	(0.001)	0.001	(0.001)
% Choice	13.213	(8.586)	18.903	(14.249)
PPI Wages	0.047	(0.156)	0.206	(0.249)
By-Product Value	0.026	(0.018)	0.056*	(0.028)
Cutout Value	0.091***	(0.011)	0.166***	(0.017)
OKC Feeder Price	0.440***	(0.026)	0.687***	(0.042)
NE Corn Price	2.028***	(0.477)	3.258***	(0.752)
Avg Carcass Wts	-0.051**	(0.016)	-0.089***	(0.024)
Feb	-0.517	(0.329)	-0.962*	(0.512)
Mar	-1.373**	(0.491)	-1.909*	(0.770)
Apr	-2.624***	(0.700)	-4.324***	(1.115)
May	-3.815***	(0.776)	-6.515***	(1.247)
Jun	-4.661***	(0.723)	-7.832***	(1.169)
Jul	-4.340***	(0.616)	-6.906***	(1.004)
Aug	-3.611***	(0.594)	-6.132***	(0.970)
Sep	-2.630***	(0.589)	-5.028***	(0.955)
Oct	-0.874	(0.600)	-2.327*	(0.968)
Nov	0.099	(0.520)	-0.531	(0.831)
Dec	-0.207	(0.345)	-0.408	(0.555)
ρ_1	1.044***	(0.066)	1.064***	(0.069)
ρ_2	-0.248***	(0.065)	-0.260***	(0.066)
AIC	816		1033	
BIC	900		1038	
log likelihood	-384		-492	
N	247		247	

*** $p<0.01$; ** $p<0.05$; * $p<0.1$

Table 4. Maximum Likelihood Estimation Results for the Effects of Fed Cattle Negotiated Trade Volume on Beef Marketing Margins

Variable	Estimate	Std. Err.
Intercept	-887.286***	(286.602)
Negotiated Trade %	125.480	(83.112)
Beef Production	-41.093***	(10.833)
Pork Production	-53.340***	(13.274)
Poultry Production	36.300***	(7.575)
% Choice	79.959	(231.389)
Food Marketing Cost Index	-0.151	(0.815)
By-Product Value	0.977*	(0.556)
OKC Feeder Price	-2.662***	(0.631)
NE Corn Price	-8.700	(12.505)
Avg Carcass Weights	1.451***	(0.390)
Feb	-19.801*	(10.125)
Mar	24.786**	(10.788)
Apr	49.042***	(15.114)
May	77.386***	(19.018)
Jun	69.029***	(18.684)
Jul	17.153	(17.186)
Aug	27.917*	(14.365)
Sep	12.972	(12.676)
Oct	7.889	(13.548)
Nov	12.927	(12.539)
Dec	14.540	(10.634)
ρ_1	0.507***	(0.065)
ρ_2	0.290***	(0.071)
AIC	2502	
BIC	2568	
Log Likelihood	-1232	
N	247	

*** $p<0.01$; ** $p<0.05$; * $p<0.1$

Table 5. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with consistent Bull or Bear Market Surprises to Placements and Marketings 2004 – 2013

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.88**	-0.81**	-0.22*	-0.21	-0.18	-0.15	-0.12
Placed		1	-0.71**	-0.25*	-0.25*	-0.21*	-0.20	-0.16
Marketed			1	0.29*	0.27*	0.24*	0.20	0.21
Texas[a]				1	0.97**	0.88**	0.90**	0.83**
Kansas					1	0.91**	0.93**	0.87**
Nebraska						1	0.96**	0.94**
Colorado							1	0.89**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
61 observations.
[a]Texas refers to the Texas-Oklahoma-New Mexcio market.
[b]Iowa refers to the Iowa-Minnesota market.

Table 6. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with consistent Bull or Bear Market Surprises to Placements and Marketings 2014 – 2020

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.84**	-0.72**	-0.43*	-0.38	-0.40	-0.31	-0.44*
Placed		1	-0.70**	-0.43*	-0.45*	-0.43*	-0.41*	-0.46*
Marketed			1	0.33	0.37	0.46*	0.41*	0.44*
Texas[a]				1	0.98**	0.95**	0.89**	0.93**
Kansas					1	0.96**	0.95**	0.92**
Nebraska						1	0.92**	0.95**
Colorado							1	0.86**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test
18 observations.
[a]Texas refers to the Texas-Oklahoma-New Mexcio market.
[b]Iowa refers to the Iowa-Minnesota market.

Table 7. Hypothetical Market Maker Program Structure for a Regional Fed Cattle Market

Negotiated Trade Percentage	Market Maker Rate	Negotiated : AMA Offset
Below 10%	$1.00/head	1:5
10% to 15%	75% of max. rate	1:5
15% to 20%	50% of max. rate	1:5
Above 20%	No Fee	N/A

Table 8. Market Maker Program Applied to Weekly TX/OK/NM Fed Cattle Marketings: 2017-2021

	Average	Minimum	Maximum
Negotiated Trade %	9.4%	2.2%	23.5%
Maker-Taker Rate/Head	$0.88	$0.00	$1.00
Maker Pmt./Head*	$9.49	$0.00	$41.17
	= $0.00	> $20.00	> $30.00
No. of weeks Maker Pmt. **	3	24	3

*Illustration assumes that 25% of negotiated cattle sold each week were from AMA sellers, thereby offsetting AMA sales at a 1:5 rate. Assuming zero offset would raise the weekly average payment by a little over $1.00 per head.

**252 weeks with data over the 5-year period analyzed.

Appendix A: Author Biographies

John D. Anderson is Professor and Head of the Agricultural Economics and Agribusiness Department and Director of the Fryar Price Risk Management Center of Excellence at the University of Arkansas, taking that position in January 2020. For over 20 years, John has worked as a professional agricultural economist in both academic and industry positions. His work has involved describing and assessing the farm- and sector-level impacts of policy, regulatory, and market developments across a wide variety of agricultural commodities and markets. John has served as a faculty member, with primary appointments in Extension, at the University of Kentucky and Mississippi State University. From 2010 through 2016, he served as the Deputy Chief Economist for the American Farm Bureau Federation in Washington, DC. From 2016 through 2019, John was Chair of the Agriculture department at his alma mater, College of the Ozarks in Pt. Lookout, Missouri (BS, Agribusiness, 1992), where his responsibilities included general management of the school's commercial farm operations. John received his Ph.D. in Agricultural Economics from Oklahoma State University in 1998. He is an Arkansas native, having grown up on a beef and poultry farm in Stone County.

James L. Mitchell is an Assistant Professor in the Department of Agricultural Economics and Agribusiness at the University of Arkansas and an extension livestock economist with the University of Arkansas System Division of Agriculture. James has B.S. and M.S. degrees from Oklahoma State University and a Ph.D. in Agricultural Economics from Kansas State University. Mitchell leads integrated extension and research programs that address issues that span the livestock and meat supply chain. His extension programming primarily focuses on livestock marketing and risk management. Mitchell's recent research has focused on biosecurity and foreign animal diseases, cattle traceability and identification, price discovery in fed cattle markets, and beef and livestock trade.

Andrew M. McKenzie is a Professor in the Agricultural Economics and Agribusiness Department and Associate Director of the Fryar Price Risk Management Center of Excellence at the University of Arkansas. He is a native of South Shields, Tyne and Wear, England. He specializes in price risk management, futures and options markets, grain marketing, and applied time series analysis. Andrew joined the faculty of the AEAB Department in December 1998. His current research interests include the role of transportation in grain marketing, price risk management strategies in poultry and grain markets, food safety issues, and the informational role played by financial and commodity markets in transmitting price signals. He has published over 30 refereed journal articles about commodity futures markets and is a nationally recognized expert in grain basis trading. His research relating to financial and futures market information and efficiency has been published in some of the most prestigious economics journals, including *Journal of Applied Econometrics*, *American Journal of Agricultural Economics*, and *Journal of Futures Markets*.

Regional Minimums in the U.S. Beef Complex

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Declaration of Conflict of Interest
The authors declare that we have no relevant or material financial interests that relate to the research/results described in this paper

Data Disclosure
The data used in this research are non-proprietary. They were obtained from USDA-AMS' free portal that was created as a result of Mandatory Price Reporting

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This project has not received funding from any internal or external party either affiliated or unaffiliated with the proposed legislation

Preface

The Center for Agriculture Profitability (CAP), located at the University of Nebraska – Lincoln, was asked by the staff of U.S. Senate Committee on Agriculture, Nutrition, and Forestry Ranking Member John Boozman (R-AR) to provide commentary related to current proposals surrounding mandating certain levels of negotiated cash trade in major cattle feeding regions. This report is a product of that invitation.

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Executive Summary

There have been ongoing, yet mixed, concerns about the decline in negotiated purchases in the U.S. fed cattle industry and whether it has created a situation where the number of transactions has been insufficient to ensure efficient price discovery (Anderson et al. 2004). This problem, referred to as market thinness, creates industry concern because thin markets are more volatile (Hayenga 1979); are subject to price manipulation by large firms (Mueller et al. 1996; Xia and Sexton 2004; Zhang and Brorsen 2010); and exhibit observed prices that tend to deviate from the competitive price (Adjemian, Saitone, and Sexton 2016). Market thinness issues are further amplified when transparency regarding prices and how they are set are unavailable to market participants (Adjemian, Saitone, and Sexton 2016). This is referred to as price transparency. In situations where there are thin markets and low levels of price transparency, there are increased opportunities for firms to engage in strategic behavior. This occurs because contract negotiations are often private and public reporting of contract specifications and prices is not required thus limiting the amount of information to public participants. Most fed cattle market participants agree the level and percent of negotiated purchases have been thinning. However, they disagree on whether market thinness and its corresponding effects have created issues for the industry.

The discussion around market thinness and price transparency and its effects on the industry has been elevated by recent meat processing plant fires in Holcomb, Kansas, and Grand Island, Nebraska, and the slowdown and temporary closures of meat processing plants during the ongoing COVID-19 global pandemic. These events led to both federal and industry-proposed responses to solve some industry participants' concerns. Three responses have been proposed: 1) greater transparency through the creation of additional public reports from the United States Department of Agriculture (USDA) reporting the base price for all cattle transactions, 2) greater transparency through the development of a cattle contract library detailing the use of all contracts utilized by the industry, and 3) reduced market thinness through implementing a minimum level of fed cattle that would need to be purchased in the negotiated cash or negotiated grid market in each United States Department of Agriculture-Agricultural Marketing Service (USDA-AMS) cattle feeding region. The third proposal is commonly referred to as "regional minimums".

The first two proposals have been met with appreciation by most industry participants. The first response was implemented in August 2021 when USDA-AMS released three new reports publishing the base prices for all cattle purchases including formula and forward contracts. Before this, only net prices received were reported by USDA-AMS for cattle purchased on formula, negotiated grid, and forward contracts. These reports attempt to resolve concerns about the public reporting of private negotiations in marketing contracts. Additional improvements and reports by USDA-AMS under the Mandatory Price Reporting Act to expand on industry concerns about price transparency are expected in the coming years. Numerous congressional bills have been drafted to address the second proposal. In December 2021, the U.S. House of Representatives passed the Cattle Contract Library Act (H.R. 5609) creating a public library for all types, quantity of head, and specifications of each marketing contract by region. If passed in the U.S. Senate, it would further reduce concerns about a perceived lack of price transparency. The third proposal has generated a significant amount of debate over the last two years. In November 2021, the most recent version of regional minimums was introduced in both the U.S. Senate and the U.S. House of Representatives. These bills come after a failed attempt by the industry to increase the levels of negotiated purchases to levels sufficient to ensure adequate

price discovery. Some regions did increase the level of negotiated purchases during this time compared to historical levels and further policies could be developed or implemented. The belief is that requiring a certain level of minimum trade by region will decrease market thinness such that prices reported by USDA-AMS approximate the competitive price. Bills advocating for mandatory regional minimums have received mixed reactions from industry participants and observers.

Advocates for regional minimums claim markets are too thin, reliable price discovery is no longer possible, and given market fundamentals, the USDA-AMS reported prices are different than what prices should be. They further claim the reporting of prices is a public good and if the industry has been unable to self-regulate, then there is a need for the federal government to regulate business practices. They believe with regional minimums in place, price discovery will be sufficiently high across all regions such that the observed price will approximate the competitive price. This process will allow for correctly communicated market signals along the beef complex. They acknowledge the potential added costs with these policies but justify the added benefits of price discovery offset these costs.

Opponents of regional minimums claim the increased use of alternative marketing arrangements (AMAs), and thus the reduced use of negotiated purchases, allowed meat processors to better communicate the level and timing of cattle quality through premiums and discounts awarded by cattle carcass attributes. They argue this incentive mechanism improved the quality of beef entering the market and increased the price levels for all market participants, not just the users of AMAs. It has also created incentives to find and purchase feeder cattle capable of earning these premiums leading to a greater reliance on predicted genetic performance and value-added practices. Opponents further point out that while negotiated purchases have declined, this can partially be explained by aggregate market fundamentals (e.g., cyclical changes in the cattle cycle, reduced packing capacity, etc.). Finally, opponents claim that while current levels of negotiated purchases are low, they have not reached sufficiently low levels to hamper robust price discovery. Opponents justify this by suggesting the hog industry has sufficient price discovery with less than 5% of total purchases in the cash market. Their primary concern is that if regional minimums were implemented, the minimums would negatively impact the supply chain of quality cattle increasing industry costs. These increased costs would ultimately impact consumer demand and potentially reduce the total value for all industry participants.

Given these contrasting views about the implementation and effects of proposed regional minimums on the U.S. beef complex, the purpose of this report is seven-fold. First, we review and compare existing legislation requiring regional minimums in the fed cattle industry. Second, we categorize key policy parameters for regional minimums. Third, we evaluate how current proposals align with historical market behavior and provide a sensitivity analysis for key policy parameters. Fourth, we show how a level of robust trade could be estimated. Fifth, we provide a few alternative specifications to the regional minimums that, if implemented, could accomplish the objective of providing robust price discovery in the fed cattle industry while maintaining cattle quality considerations. Six, we discuss some policy alternatives to regional minimums. Seventh, we conclude the report and provide some broad conclusions and implications.

The main findings of this study include:

Policy Parameters

- The frequency of the data used to create regional minimums determines how responsive regional minimums should be towards short- and long-term trends.
- The method by which the levels of robust trade are derived is an important decision on whether negotiated trade will resolve perceived issues of price discovery.
- The length of time regional minimums are required to be met determines how reactive regional minimums can be to changing market conditions.

Historical Alignment of Policies

- Ad-hoc specifications perform the poorest of all current policies suggesting, even at extremely low levels of required negotiated trade (i.e., <10%), no region would pass 100% of the weeks. This is largely an effect of non-reporting weeks and these situations should be clarified in future policies.
- Regional minimums based on past market activity are set by negotiated purchases occurring in CO or TX-OK-NM. No other regions set minimums. Increasing the level of weeks in the rolling averages decreases the number of weeks not meeting regional minimums.
- Increasing the number of weeks that are required to meet a percentage of negotiated trade is less restrictive than requiring a larger percentage of negotiated trade to be met each week.

Robust Trade

- The previous analyses suggest there is some justification for making regional minimums different across regions and that these minimums should be flexible over time.
- The historical amount of trade within a region does not necessarily imply more trade will be required. Rather, it is the amount of variation in price that determines the amount of required trade.
- Estimating a robust level of trade requires the industry to consider the pricing accuracy (c; $/cwt.); probability of being accurate (P; %); and how price variation is modeled. If a rolling variance is used, then using a shorter rolling average combined with a lower level of c and a higher level of P would be required.

Alternative Specifications of Regional Minimums

- *If* regional minimums continue to be a policy priority, there are several different ways they could be specified. The tradeoffs in these are between requiring sufficient trade so price discovery is adequate while still allowing producers to market cattle in a manner they believe is profit-maximizing. These alternatives incorporate what industry participants voiced over the last year about equitable price discovery across regions and concerns about regional minimums affecting cattle quality.

Policy Alternatives to Regional Minimums

- The primary question to be addressed is whether there is inadequate price discovery. In this situation, the solution increases the level of negotiated purchases either voluntarily or by mandate. Even with improved price discovery, consideration needs to be given to what is driving the variation in prices reported for negotiated purchases. Explored policy alternatives seek to improve price transparency through changes in USDA-AMS reporting which may resolve some industry participants' concerns.

The main purpose of this report is to show how current and potential alternative specifications of regional minimums would have historically aligned with observed market behavior. However, the fundamental question in the debate of the validity and effectiveness of regional minimums first rests on whether robust price discovery has historically occurred over time and within each USDA-AMS region. If there has been a lack of price discovery during certain times of the year or systematically within certain regions, then creating regional minimums is *one* alternative to increase negotiated trade to robust levels. Thus, if either of these two conditions are met, then one should not expect any formulation of regional minimums to match historical market behavior. This does not necessarily imply regional minimums are poorly constructed or would be ineffective at increasing price discovery. On the contrary, to create regional minimums so that they matched historical market behavior considering either of these two conditions would be counterproductive to the objective of increasing negotiated trade to a robust level. Rather than solving issues of price discovery, the enacted regional minimums would only continue permitting deficient levels of price discovery to persist under the guise of "improved price discovery".

As with all policies, benefits and costs may not be equally shared along the supply chain. This analysis does not take an opinion on whether regional minimums are a net benefit or a net cost to the U.S. beef complex nor does it attempt to quantify these impacts, of which there are likely many. But rather, its primary purpose is to compare proposed solutions and show how current and potential alternative specifications of regional minimums would have aligned with historically observed market behavior.

Defining Regional Minimums

Several bills introduced in the U.S. House of Representatives and U.S. Senate address concerns from some producers about a perceived lack of price transparency and market thinness in the fed cattle market. In addition, the NCBA, a cattle producer organization, introduced a voluntary industry policy in 2021 to address similar issues. While these bills and industry proposals have several components, this section focuses on how they have defined the minimum levels of negotiated trade.

Since 2020, there have been three bills introduced in the U.S. Senate (S.B. 4647, S.B. 543, and S.B. 3229); three bills introduced in the U.S. House of Representatives (H.R. 8557, H.R. 3766, and H.R. 5992); and one industry proposal (NCBA 75% Plan). In addition, there was one bill introduced in the U.S. House of Representatives (H.R. 8489) proposing a feasibility study be conducted related to regional minimums in the fed cattle trade.

Table 1 compares the bills and policies introduced in the U.S. Congress and by industry. It compares the policies by:

1. Date introduced
2. The governing body setting the regional minimums
3. Regions required to meet minimums
4. What cattle transactions qualify towards a minimum (negotiated purchase only, negotiated grid purchase only, negotiated purchases, or negotiated grid)
5. The mechanism of required trade (i.e., the number of cattle, percentage of cattle, number of transactions, etc.)
6. The frequency minimums that need to be met (i.e., weekly, monthly, or yearly)
7. Who is required to meet minimum purchases (individual packer/company)
8. How long regional minimums will be in place
9. The initial requirement for regional minimums
10. Whether there are adjustments for market shocks

Policy Factors in Each Bill

The following section summarizes how the bills and industry proposal compare the policy mechanisms used to define regional minimums.

Date Introduced

All bills have been introduced since the spring of 2020 when the effects of COVID-19 started impacting the fed cattle and meat processing industry. The most recent bills were introduced in November 2021.

Who Sets the Regional Minimums

Who is empowered to set the regional minimums has changed over time. Earlier bills required only the Secretary of Agriculture to set regional minimums. However, more recent bills have focused on the Secretary of Agriculture in consultation with the Office of the Chief Economist (OCE). This is an important distinction as it creates new provisions for the OCE from its current role of providing unbiased data-driven analysis and information into more of a role in policy and regulation development. The industry proposal was set by a stakeholder committee supplemented with academic commentary.

Regions Required to Meet Minimums

All bills and industry proposals have focused on setting regional minimums for current USDA-AMS-defined reporting regions. These five regions include Colorado (CO), Iowa-Minnesota (IA-MN), Kansas(KS), Nebraska (NE), and Texas-Oklahoma-New Mexico(TX-OK-NM). These five regions account for the most fed cattle processed in the U.S. each year. If regions are defined as "USDA-AMS reporting regions" then the bills and proposals are flexible enough to account for potential changes to reporting regions such as those recently proposed (see Schroder, Tonsor, and Schulz 2019). However, all proposals waive the requirements for packing plants in non-USDA-AMS reporting regions. The industry proposal slightly deviates from USDA-AMS reporting regions by combining Nebraska and Colorado (NE-CO).

Cattle Transactions Qualifying Towards Minimum

All bills and industry proposals define that either negotiated purchases or negotiated grid purchases qualify toward regional minimums. In both cases, meat processing plants and feedlots negotiate a base price where cattle are sold before cattle are delivered and harvested. There is no distinction in the proposals about the selling basis (i.e., live vs. dressed) or who pays for transportation (i.e., delivered vs. freight on board (FOB). Allowing the inclusion of both negotiated purchases and negotiated grid purchases allows for more cattle to qualify towards regional minimums but differs from the traditional definition of the "local cash price". Regions with a larger share of cattle sold via negotiated purchases relative to negotiated grid purchases are less likely to be affected by what constitutes negotiated cash purchases.

Mechanism of Required Minimum Trade

The mechanism for regional minimums has changed considerably across bills and through time. Earlier bills defined it as the number of cattle and the percentage of cattle. Later bills required the number of cattle, the percentage of cattle, and the number of transactions. The most recently introduced version of the bills and the current industry format focus on the percentage of cattle required to be bought/sold as negotiated cash. Using the percentage of cattle allows for regional minimums to be flexible to industry trends and beef cow herd dynamics. Eliminating required transaction numbers allows packers flexibility to make large purchase orders from a small subset of producers rather than engaging with a larger number of producers.

How Frequently Minimums Need to be Met

All bills and industry proposals set regional minimums using weekly data. Setting regional minimums using weekly data allows for more variation in the data making regionals more reflective of market conditions. Using more aggregate data, such as yearly or multi-year data, removes short-term dynamics and focuses more on long-term trends. The bills specify regional minimums must be met each week while the industry proposal specifies minimums must be met in 75% of weeks within a quarter. Requiring regional minimums to be met weekly is perhaps the most restrictive version of the bills increasing the likelihood that meat processing plants will fail minimums. Providing flexibility to

meet monthly, quarterly, or yearly minimum requirements allow them to balance the flow and availability of cattle in addition to existing contractual arrangements.

Who is Required to Make Minimum Purchases

All proposed bills require the meat processing plant to meet the regional minimum purchases. The industry proposal requires both feedlots and processing plants work together to meet regional minimum purchases. The definition of which meat processing plants/packers are required to meet these minimums change between bills differing slightly from the definition of a packer required to report under Mandatory Price Reporting (MPR). Under MPR, a processing plant is defined as any entity buying cattle for the purpose of processing cattle into meat to be sold and harvesting an average of 125,000 head of cattle per year during the previous five years. Processing plants at these levels, through either new construction or an expansion of capacity, and are expected to remain at these levels for the next five years are also required, under MPR, to report purchases. The key difference is that proposed bills make exceptions for companies owning no more than one plant whereas including all packers covered by MPR requires all plants make negotiated cash purchases regardless of the number of plants owned.

Duration of Minimums

Earlier bills do not define how long regional minimums be in place before being adjusted. Later bills provided a consensus that regional minimums would be in place for no more than 24 months. None of the bills define a minimum number of months that regional minimums be in place. Given most current bills require a public comment period before adjustments can be made to regional minimums, it is unlikely these regional minimums would change frequently. As the length of time a regional minimum is in place increases, it could provide a long-term trend to which the industry would likely adjust. This could be both positive and negative depending on how well the levels are set to align with historical and future price variation. If regional minimums are set in periods of low (high) price variation, then the duration of these minimums should be smaller (larger) relative to periods of average price variation. If regional minimums are set in periods of low (high) price variation, then in the future, the number or percentage of cattle sold well under (over) represents the number of cattle required to ensure robust price discovery. Under average price variation, this over and under-representation averages out over time.

Initial Regional Minimum Requirement

Earlier bills proposed regional minimums be established but did not define how regional minimums be set. The most recent bills defined the minimum for all regions to be set at the lowest 18-month average of negotiated purchases that occurred across all regions. All regions would be required to meet this minimum for the defined duration. However, no region would be required to sell more than three times this amount. Thus, there are weeks a region could a) meet/set the minimum, b) be within the minimum and maximum, or c) be at or above the maximum requirement. This could have dual effects of increasing the amount of negotiated cash purchases in regions setting the minimums while creating disincentives for cattle to be sold as negotiated purchases in regions that are consistently above the regional minimum.

The industry proposed plan has a different approach requiring regions to meet 75% of a calculated robust minimum trade requirement in 75% of the weeks within a quarter. These calculated regionally robust trade requirements are defined using assumptions about the historical price variation, a proposed degree of certainty, and how close the industry wants to be to the hypothetical competitive price. For example, the industry may want to be 90% confident that the reported/observed price is within $0.50 per cwt. of the competitive price. The observed price approaches the hypothetical competitive price as more cattle are sold in the negotiated cash market. If the industry wants to be either more confident of a given price range or wants to be within a smaller price range, then more cattle need to be sold in the negotiated cash market. Further, when there are periods of more price volatility in the local cash market then more cattle are required to be sold in the cash market. All these parameters are choices the industry or entity setting regional minimums must make to calculate a robust level of trade.

Missing/Non-reporting weeks

None of the bills define provisions on how regions would be evaluated for non-reporting weeks due to a lack of confidentiality. There is a significant difference between weeks where no cattle were transacted and thus not reported, versus weeks where cattle were transacted but could not be reported due to USDA-AMS confidentiality requirements. No cattle traded in a region would only occur under the rare circumstance where all plants within a region are shut down.

Defined USDA-AMS confidentiality guidelines do not allow data to be reported if there less than three companies reporting and each reporting company does not constitute more than 75% of the reported quantity. The confidentiality requirement instills confidence in producers/processers that the data reported, and thus business strategy/pricing, will be safeguarded. The default when calculating minimums assumes that if data is not reported by USDA-AMS, then no cattle were transacted. Whether no cattle were transacted or cattle were transacted but prices and quantities were withheld, there is an equivalent amount of price discovery provided to the market. Including non-reporting weeks as not satisfying regional minimum requirements will reduce compliance across all regions.

Adjustments for Market Shocks

One bill and the industry proposal provide regional minimums could be adjusted for market shocks (i.e., black swan events) but do not define what would be an acceptable market shock; how the adjustment would occur; or for how long the adjustment would remain in effect before reverting to original minimums.

Adjusting regional minimums to account for market shocks assumes that during periods of market disruptions, meat processing plants find it harder to procure cattle via negotiated purchases relative to cattle in formula or forward contracts. There is no published evidence suggesting this occurs. Rather, there is anecdotal evidence suggesting the opposite occurs – during market shocks, less cattle are sold via negotiated purchases relative to formula or forward contracts. This likely arises from the fact that operating contracts have "failure to comply" clauses in formula and forward contracts often with associated penalties. This creates financial incentives for processing plants to honor these

formula or forward contract agreements rather than purchase cattle in the negotiated cash market. Further, periods of market shocks are often accompanied by periods of large price variation/uncertainty as market participants recalibrate to perceived expectations of supply and demand. In these periods, the market generally requires more negotiated cash transactions to arrive at the new competitive price. Thus, by including policy adjustments reducing the number of negotiated cash transactions required during market shocks, it could exacerbate the price discovery challenge exactly during times when price discovery is most needed.

Cost-Benefit Analysis

There is significant uncertainty regarding the unintended costs and benefits regional minimums would impose along with the entire beef complex. Later bills recognize these limitations and create provisions to conduct a cost-benefit analysis no later than two years after establishing regional minimums. How frequently these studies would be conducted after the initial review has not been specified.

Penalties

Later bills specify that processing plants failing to meet regional minimums be subjected to a financial penalty. The maximum civil penalty is set at $86,156, adjusted for inflation. There is no indication of how this level of civil penalty was derived. Similarly, plant size affects the penalty awarded. For example, a 490 head/day (125,000 head/year) plant harvesting cattle five days a week would equate to 2,450 head/week. Assuming average slaughter weights of 1,300 lbs., this penalty equates to $35.17 per head (86,156/2,450 = 35.17) and $2.71 per cwt. (35.17/13 = 2.71) penalty. For a larger plant harvesting 6,000 head/day (30,000 head/week and 1,530,000 head/year), this equates to $2.87 per head and $0.22 per cwt. Thus, unless the penalty is adjusted for plant size, smaller plants receive larger penalties than larger plants. The average plant harvest weights affect the penalty awarded. If plants harvest cattle at lower slaughter weights, then the penalty, on a per cwt. basis would increase. For example, taking the plant that harvests 490 head/day, the penalty would be $2.71 per cwt. if the live weight plant average was 1300 lbs., $2.93 per cwt. for 1200 lbs., and $2.34 per cwt. for 1500 lbs. Thus, plants harvesting heavier carcass weights would be less affected by the civil penalty. The amount plants miss the regional minimum does not affect the penalty awarded. The most restrictive penalty would be a "pass/no-pass" system where, regardless of the amount the regional minimum was missed, the full penalty would be awarded. The most "packer friendly" penalty structure is one where penalties are small for small deviations from the minimum and exponentially increase as the deviations from the minimum become larger. Under the assumption that the objective of the policy is to ensure packers meet minimum negotiated cash purchases, the penalty should be structured so the marginal cost of procuring cattle via negotiated cash is less than the marginal cost of the penalty of missing the regional minimum.

Categorization of Policy Parameters

Three key policy parameters for regional minimums are 1) the type of data used to create regional minimums (daily, weekly, monthly, yearly), 2) the length of time regional minimums are required to be met (weekly, monthly, quarterly, yearly, multi-year), and 3) how regional minimum levels are derived (calculated, historical, ad-hoc). These category levels create 60 (4×5×3) unique policy combinations. Current proposed federal and industry policies only consider using weekly data to create minimums. Fifteen policy alternatives are available if using weekly data to create regional minimums. Table 2 shows how current policies align with these potential policy combinations.

Certain policy parameters have a greater impact on a region's ability to pass the minimum levels of required negotiated purchase levels. The suggested impact from these policies is increasing the level of negotiated trade provides more robust price discovery Only if specified minimums are properly calibrated can mandating regional minimums resolve some industry participants' concerns regarding inadequate price discovery (i.e., market thinness).

1) The frequency of the data used to create regional minimums determines how responsive regional minimums should be towards short- and long-term trends. Daily data focuses on short-term trends whereas yearly data focuses on long-term trends. There is more variability in daily data relative to yearly data. Thus, regional minimums using daily data are likely to experience increased variability = potentially leading to more regions failing minimum trade requirements.

2) The method by which the levels of robust trade are derived is an important decision on whether negotiated trade will resolve perceived issues of price discovery. Ad-hoc specifications of regional minimums are subjective and could be set either too high (i.e., more cattle traded than necessary to obtain robust price discovery) or too low (i.e., fewer cattle traded than necessary to obtain robust price discovery). Using historical negotiated purchases to determine future negotiated purchase requirements would resolve price discovery issues dependent on the historical timeframe used to set regional minimums. If historical data encompasses a time with robust price discovery, then the resulting regional minimums could provide robust price discovery. However, if the historical data encompasses a time with weak price discovery, then regional minimums would provide poor price discovery.

3) The length of time required regional minimums be met determines how reactive regional minimums can be to changing market conditions. The shorter the minimum length the more reactive they are. The longer the length, the less responsive the regional minimums can be to changing market conditions.

How Proposed Regional Minimums Policies Align with Historical Fed Cattle Marketing Practices

This section details how bills introduced in the U.S. Senate and the U.S. House of Representatives, as well as industry proposals, historically align with previous market conditions. In so doing, we *do not* make any normative assessment of whether this historical alignment with proposed policies created a net benefit or cost to a specific region. Rather, this section provides some indication of how much or little an existing USDA-AMS cattle feeding region would need to potentially change historical marketing practices to reach compliance with proposed regional minimum policies.

The initial minimum requirements examined are:

1) 30% regional minimum across all regions (H.R. 8489)
2) 50% regional minimum across all regions (H.R. 8489)
3) Minimum trade set by the lowest region 18 months rolling average and maximum trade set by no more than 300x minimum trade (S.B. 3229, H.R.5992)
4) A regional minimum set by 75% of an estimated level of the robust level of trade that is required to be met in 75% of the weeks in a quarter (NCBA 75% Plan)

Regional Minimum Assumptions
The following are assumptions made in analyzing the proposed policies:

Mechanism of Required Minimum Trade
Initial minimum requirements in plans (1)-(2) state purchases should be a percentage of total trade within a region remaining constant through time. Plan (3) also specifies a percentage of total trade by region but allows for regional minimums to be (re)set every 24 months. Plan (4) assumes a per head robust level of trade per region which remains constant through time. Other bills have proposed using the number of cattle and number of transactions. A percent of total trade is calculated as [negotiated + negotiated grid]/[negotiated + negotiated grid + formula + forward contract]x100.

Data
Weekly data is taken from USDA-AMS from 2013 to 2020. All plans require the use of weekly data rather than more flexible monthly or yearly minimums. Cattle are aggregated across cattle quality grades (i.e., Over 80% Choice, 65-80% Choice, 35-65% Choice, and 0-35% Choice), selling basis (Live and Dressed), and mode of transportation (FOB and Delivered). We restrict it to only include lots classified as "Steer only", "Heifer only", and "Mixed Steer/Heifer". This represents most cattle harvested in the U.S. This excludes dairy bred steer/heifer lots and mixed steer/heifer/cow lots of cattle that tend to be priced and graded differently than fed cattle.

Defining Negotiated Cash Sales
We follow all policies stating cattle transactions that count towards regional minimum requirements can include cattle sold via negotiated purchase or negotiated grid purchase (i.e., negotiated cash = [negotiated purchase + negotiated grid]).

Frequency
Policies (1)-(3) assume regional minimums must be met weekly. Policy (4) uses weekly data but allows for minimums to be met 75% of weeks within a quarter.

Periods of Review
We analyze all proposed policies assuming they are under a "continuous review". This is slightly different than what has been proposed in the third bill which states regional minimums are set and then in place for no more than 24 months. In this case, we provide results to both specifications.

Marketing Regions
All policies are analyzed using the five marketing regions as reported by the USDA-AMS: CO, IA-MN, (KS, NE, and TX-OK-NM. In addition to these five locations, we analyze a sixth region, Nebraska-Colorado (NE-CO), proposed under NCBA's 75% rule.

Adjustment for Market Shocks
We do not make any attempt to show how regional minimum plans would perform given unforeseen market shocks (i.e., pandemic, animal disease outbreak, etc.).

Penalties for Non-compliance
Policy (3) is the only policy studied specifying a penalty associated with non-compliance. We do not specifically quantify how much each region would theoretically pay in penalties for several reasons. First, while an aggregate measure of non-compliance by region could be calculated (i.e., total penalty = [weeks non-complying × penalty]), these penalties are likely to be accrued back to meat processors. This would require an assumption on the share of production within a week for the top 50 meat processors by region and each company within that region was equally (non)compliant. Second, penalties incentivize compliant behavior making any estimate an "upper bound" on penalties accrued by region. Thus, this analysis is more about how often the proposed targets are or are not met and not a study of how markets or strategic buying behavior would change under penalty requirements.

The following is the performance of each proposed initial regional minimum.

30% regional minimum across all regions (H.R. 8489)

Performance
The following percentage of weeks would have met the minimum requirement in each region assuming a 30% regional minimum requirement across all regions that stays the same over time: 1% CO, 97% IA-MN, 5% KS, 92% NE, 0% TX-OK-NM, and 87% in NE-CO.

50% regional minimum across all regions (H.R. 8489)

Performance
The following percentage of weeks would have met the minimum requirement in each region assuming a 50% regional minimum requirement across all regions staying the

same over time: 0% CO, 83% IA-MN, 0.5% KS, 14% NE, 0% TX-OK-NM, and 28% in NE-CO. Figure 1 shows how the actual trade and regional minimum compares.

Sensitivity Analysis

Table 3 and Figure 2 show the percentage of weeks within each region meeting a given fixed percentage of trade required to be met across all regions. Combined, this suggests even at extremely low levels of required negotiated trade (i.e., <10%), no region would pass 100% of the weeks. This is from non-reporting weeks within regions not meeting the USDA-AMS confidentiality requirement.

Minimum trade set by the lowest region 18 months rolling average and maximum trade set by no more than 300x minimum trade (S.B. 3229, H.R.5992)

Performance

Table 4 shows the percentage of weeks each region would fail to meet the minimum under the current proposal. Approximately 32% of weeks would fail in CO, 0% in IA-MN, 4% in KS, 0% in NE, 32% in TX-OK-NM, and 0% in NE-CO. Averages across time can mask some of the dynamics occurring through time. Figure 3 shows the percentage of weeks violated by region assuming an 18-month rolling average is used to set regional minimum levels. There is significant variation through time, particularly in the TX-OK-NM region. Using different rolling averages yields similar results. Figure 4 shows that under any specification, regional minimums are set by negotiated purchases occurring in CO or TX-OK-NM.

Sensitivity Analysis

Table 4 also shows how the specification of the number of weeks to include in the historical average and the number of weeks the regional minimum is valid for impacts the percentage of weeks that violate by region. On average, holding the number of weeks constant for which the regional minimums are valid, increases the number of weeks included in the historical average decreases the number of violations. For example, in CO assuming regional minimums are valid for 26 weeks. Going from a 52-week historical average to a 156-week historical average decreases the number of violations from 36% to 31%. Similar results hold across other regions. Holding the number of weeks included in the historical average constant and adjusting the number of weeks for which regional minimums are valid creates more conflicting results. On average, increasing the number of weeks for which regional minimums are valid does decrease the number of violations at levels less than 24 months. At levels greater than 24 months, more violations begin occurring. Figure 4 shows this dynamic across a greater number of weeks for which regional minimums are valid. For most regions, there is a significant amount of movement in this policy parameter.

The regional minimum is set by 75% of the robust level of trade and is required to be met in 75% of the weeks in a quarter (NCBA 75% Plan)

Performance

Table 4 shows the percent of quarters containing 75% or more weeks passing 75% of the estimated robust level of trade for the region: 44% of quarters fail in CO, 0% in IA-MN, 19% in KS, 0% in NE, 39% in TX-OK-NM, and 0% in NE-CO. Figure 5 shows the

sequential percentage of violating quarters over the 2013-2021 period (i.e., 36 quarters). Tables 5 and 6 displays the results of the policy slightly differently. Rather than requiring a certain percent of weeks to pass within a quarter, this displays how many weeks, on average, passed percent levels of robust trade. No one region always meets estimated levels of robust trade. However, on average, not restricting a certain percentage of weeks to pass within each quarter increases the number of regions passing robust minimum levels.

Sensitivity Analysis

Table 7 shows the most flexible version of NCBA's policy. It shows different combinations of robust trade and the percent of weeks within a quarter by region required to pass estimated robust trade levels. Violations increase as the percent of weeks required to meet regional minimums within a quarter increases. Between these two policy parameters, the percent of robust trade required to be met each week is more important as it creates more violations with a 1% increase relative to a 1% increase in the percent of weeks.

Getting to a Robust Trade Number

The previous analyses suggest some justification for making regional minimums different across regions and that these minimums be flexible through time. The objective of requiring a minimum amount of negotiated purchases is to provide enough trade and eliminate concerns about price discovery (i.e., market thinness). If not previously aligned, this increased amount of trade could allow the competitive price and the observed price to align more closely.

The topic of creating sufficient trade to ensure adequate price discovery is not new. For the better part of four decades, numerous published studies attempt to clarify how one defines, studies, and quantifies thin markets. Several theoretical and empirical frameworks have been developed estimating how different solutions could remedy market thinness and ensuing negative impacts. One often-used technique is estimating the additional quantity needing to be priced to align with the competitive price and the with the observed price subject to several assumptions. These include how close the industry wants these two prices to be (i.e., within a $/cwt. Range), and how accurate they want the estimates of this range to be (e.g., 90% confidence interval). This method, known as Chebyshev Inequality, has been used to estimate a robust level of trade in fed cattle and finished hogs markets (Tomek, 1980; Ward and Choi, 1998; Franken and Parcell 2012; Koontz 2015; Brookover, 2020).

Using the Chebyshev Inequality method to derive a "robust level of trade" can be done but relies on a key assumption about how one specifies historical price variation (i.e., volatility). More price variation requires more cattle to be traded. There are three primary ways historical price variation has been specified: 1) within-year variation of weighted average price, 2) first difference between regions, and 3) rolling variance. This section builds and partially replicates the work done in Koontz (2015) and Brookover (2020) on estimating a robust level of trade for major USDA-AMS reporting cattle feeding regions. For each USDA-AMS cattle feeding region r, we estimate the number of head n with a probability P that the observed price X_n does not deviate from the competitive price μ for a given level of accuracy $\pm c$. This can be written as:

$$P(-c \leq X_n - \mu \leq c) \geq 1 - \frac{\sigma^2}{n \times c^2}$$

where $\sigma^2$is the assumed variance of weighted average prices. Thus, the total number of head required is calculated as:

$$n = \frac{\sigma^2}{(1-P) \times c^2}$$

This has several important key insights. First, if the industry wants to have greater confidence (i.e., $\uparrow P$) or have the competitive and observed price be in better alignment (i.e., $\downarrow c$) or there is a significant amount of price variation (i.e., $\uparrow \sigma^2$), then the number of head required to be traded in each region r will increase. Using these observations, we report the historically estimated robust level of trade in each USDA-AMS cattle feeding region r.

One simplifying assumption is made. We combine dressed and live prices by converting dressed prices to live weight prices assuming a 63% dressing percentage. A weighted average price of live and dressed purchases is calculated using the number of head traded in each of these sub-segments each week. Thus, we create one reported price per region per week. While this may mask some of the differences between live and dressed purchases, and potentially between

delivered and FOB, it greatly simplifies the reporting of robust trade levels by region. This assumption has been used in other studies for similar reasons (see Coffey, Tonsor, and Schroeder (2018) using combined live and dressed prices for estimations of basis).

Within-year Variation of Weighted Average Price

Table 8 shows the number of transactions that need to occur by region to ensure robust price discovery given assumed levels of probability (P) and pricing accuracy (c). As the level of c becomes smaller, the greater the number of head required to be traded. Likewise, as P becomes larger, the greater the number of head required to be traded. Within cattle feeding regions, the number of cattle traded varies considerably. This variation is driven by the underlying volatility in the weighted average price. For example, 2015 had volatile prices relative to other years. Consequently, given the same levels of c and P, significantly more cattle were required to be traded to ensure adequate price discovery. The number of cattle traded by region also varies considerably. Counter to popular belief, the historical amount of trade within a region does not necessarily imply more trade will be required. Rather, it is the amount of variation in price that determines the amount of required trade. For example, in 2014 at $P = 75\%$ and $c = \$0.25\ cwt.$ CO traded 2,524 head and IA-MN traded 19,551 head on average each week. The required amount of trade to ensure adequate price discovery in each region was 5,437 in CO and 4,446 in IA-MN. Thus, while IA-MN traded nearly 10x the amount of CO, the required amount of trade was lower. This required amount of trade depends on price volatility driven primarily by local supply and demand dynamics and the underlying quality of cattle entering the negotiated cash and formula market.

Rolling Variation of Weighted Average Price

Like the within-year variation of weighted average price, levels of c and P need to be considered within each region. In addition, consideration needs to be given to the length of the rolling window. For simplicity in presentation, Figure 6 shows how the actual number of transactions and the estimated number of transactions compared by region and length of the rolling average given $P = 90\%$ and $c = \$1.50\ cwt.$ The longer the rolling average used, the more trade is required by region and that trade needs to be sustained for a longer period. Figure 7 verifies previous conclusions about the levels of c and P still hold using data from Nebraska and a 78-week rolling average. The benefit of the rolling average compared to the within-year variation estimation of required levels of trade is it provides a continuous weekly update on required levels of trade. If concerns are to provide each region enough trade during volatile pricing to ensure price signals are properly communicated along the supply chain, then using a shorter rolling average combined with a low level of c and a high level of P would be required.

Alternative Specifications of Regional Minimums

This section explores different ways regional minimums could be specified *if* regional minimums continue as a policy priority. By specifying alternatives, we make no claim about the cost and benefit of these alternative specifications but rather how they could *potentially* increase the number of weeks each region meets minimum trade requirements while simultaneously providing adequate and time appropriate price discovery. The tradeoff is between requiring sufficient trade so that price discovery is adequate while still allowing producers to market cattle in a manner they believe is profit maximizing. These alternatives try to incorporate what industry participants have voiced over the last year about equitable price discovery across regions and concerns about regional minimums affecting cattle quality. There are at least four alternatives in how regional minimums could be specified. All assume the same data used in previous sections.

Share of Negotiated Trade Equal to the Percent of Total Trade

Regional Minimum Specification

Central to some industry participants' concerns is that all regions should "bear their own share" of price discovery. Using this claim, an alternative way to specify regional minimums would be to require regional minimums to reflect each region's share of total trade in the market. This specification assumes price discovery in each region is proportional to the trade a region transacts in the market – something not empirically verified. Using this specification, each USDA-AMS region r would need to meet regional minimum trade calculated as:

$$Minimum_{rt} = \frac{Total\ Trade_r}{\sum_{l=1}^{R} Total\ Trade_r}$$

This specification implies the share of price discovery is directly proportional to the share of total trade in that region in each week t. It also assumes minimums must be met on a weekly basis. To allow for variation in negotiated purchases over time, an 18-month rolling window is used.

Performance

Table 9 shows the number of weeks each region passes the regional minimum requirements. Using this method, in CO 5% of all weeks would be above the regional minimum, 98% in IA-MN, 6% in KS, 99% in NE, 0% in TX-OK-NM, and 93% in NE-CO.

Sensitivity Analysis

Figure 8 and Table 10 shows how different specifications of the rolling average would impact the number of weeks above regional minimums. The number of months included in the rolling average has very little impact on the percentage of weeks above the minimum by region. Further, given the significant difference between historical trade and the estimated share of total trade by region, the length of time regional minimums would be in effect before they could be modified would have little impact on the number of weeks above the regional minimum by region.

Flexible S.B. 3229, H.R.5992

Regional Minimum Specification

A key assumption in S.B. 3229 and H.R.5992 is the length of time the regional minimums would be in effect. An alternative would be to remove this requirement and allow regional minimums to be met weekly. This specification would modify existing policies..

Performance

This regional minimum specification does not lend itself to quantifying (non)compliant weeks within regions. Rather, it provides a comparison for how often a region sets the minimum requirement (and thus sets the maximum trade requirement); is between the minimum and maximum; and is at or above the maximum requirement. The TX-OK-NM region sets the minimum trade requirements approximately 62% of the weeks and the CO region sets it 38% of the weeks. No other regions set minimum requirements. The number of weeks each region traded more cattle via negotiated trade than was required is 0% in CO, 100% in IA-MN, 22% in KS, 100% in NE, 1% in TX-OK-NM, and 99% in NE-CO. In all other weeks, negotiated trade by region was larger than the minimum and less than the maximum.

Sensitivity Analysis

Two factors are critical to this policy 1) the number of previous weeks to include in formulating minimum trade requirements and 2) the ceiling multiplier. Table 10 shows how compliance changes given different assumptions about the upper ceiling multiplier and the number of rolling weeks required to set the minimum. As the number of weeks included in the rolling average to set the minimum floor changes, the percent of time each region sets the floor changes. IA-MN, KS, and NE continue to have zero impact on the minimum. However, as the rolling average increases, the share of CO decreases and the share of TX-OK-NM increases. The ceiling multiplier does not affect the percent of time each region sets the minimum. Rather, it impacts the percent of weeksa region is above the maximum or in between the minimum and maximum. As the ceiling is increased, a larger number of weeks are above the minimum but below the maximum. Figure 9 shows the minimum, maximum, and range between these values by region and number of weeks included in the rolling average.

Rolling Average of Robust Trade Levels

Regional Minimum Specification

The objective of regional minimums is to allow for adequate price discovery to occur within each region. This implies, at certain times of the year, more cattle need to be traded to have sufficient price discovery. As described in a previous section, estimated robust levels of trade can be calculated given assumptions on the desired levels of accuracy in pricing. This third method is a combination of S.B. 3229, H.R.5992 and NCBA's 75% rule with the levels of negotiated trade set by a rolling variance of robust trade given $P = 90\%$, $c = \$1.00\ cwt.$, and a 78-week rolling average.

Performance

Using these levels of $P, c,$ and rolling average the percent of weeks that would pass in each region is <1% in CO, 28% in IA-MN, 10% in KS, 43% in NE, and 0% in TX-OK-NM.

Sensitivity Analysis

Table 11 shows how the number of weeks above the regional minimum changes given different specifications of $p, c,$ and rolling averages. As previously discussed in the Estimating a Robust Level of Trade section, as the level of P gets larger, the level of c gets smaller, the length of rolling average increases, and the estimated number of head required to be traded increases. This implies the number of weeks passing across different regions decreases. Figure 10 shows how the most flexible version of this regional minimum specification and the percent of weeks within each region would be above the minimum. It confirms that regardless of the specification P and c that CO and TX-OK-NM will never have 100% of the weeks be above the regional minimum. For other regions, at some level of $P, c,$ and length of rolling average, all weeks within a region would be above the regional minimums.

Robust Minimum Trade and Cattle Quality Minimum

Regional Minimum Specification

A common concern among opponents of regional minimums is it hurts overall cattle quality going through the beef complex. This regional minimum would specify both a percent of total cattle and an (estimated) quality grade to trade. By requiring a certain percentage of cattle entering the cash market to be at an (estimated) level of quality grade, it *partially* resolves some industry participants' concerns.

Table 12 shows the percentage of cattle grading 80% Choice or higher of total cattle traded by selling basis, marketing method, and region. This leads to several observations. First, within a region and marketing method, there are very few differences between cattle sold as live vs. dressed. Second, within a region, but across marketing methods, there are some differences between cattle quality. For example, CO and IA-MN have higher cattle quality in negotiated purchases relative to the formula. In KS and TX-OK-NM, negotiated cash has lower cattle quality than formula. In NE, there is no difference the cattle quality between negotiated cash and formula. Third, within the marketing method but across regions there are significant differences in cattle quality. CO and IA-MN have the highest level of cattle quality in negotiated purchases and TX-OK-NM has the lowest. There is a similar cattle quality type for formula purchases across regions except for TK-OK-NM which has a lower percentage of cattle classified as 80% Choice or higher.

One concern is if regional minimums were implemented it would change the underlying composition of cattle quality entering through these different marketing channels. If cattle quality entering the negotiated cash market is lower than historically observed, it would reduce the negotiated cash price. Thus, this alternative ensure both the level of trade and cattle quality is robust.

Conditional Regional Minimum Requirement

Regional Minimum Specification

A concern with any government intervention is if markets truly operate competitively, it creates market inefficiencies. In the context of regional minimums, this could be seen by requiring too many cattle to be traded in the negotiated cash market when there is already adequate price discovery. When there is not adequate price discovery and adequate price discovery is causing market inefficiencies, there could be a role for the government to require more trade to enter the cash market to achieve robust price discovery and correct these inefficiencies. This process ensures minimal government intervention while providing adequate price discovery in all regions. Thus, this specification would require regional minimums, but would only be enforceable if price discovery levels fell below robust trade levels.

For this policy to effectively resolve price discovery issues, it needs to state an estimated robust level of price discovery which could be done using the rolling variance method demonstrated in the Estimating a Robust Level of Trade section. This would allow regional minimums to be switched on and off within a region while providing a minimal disruption in cattle trading. This specification of regional minimums is like the Chicago Mercantile Exchange (CME) trading limits. The CME has a normal allowable trading range to ensure the market does not move one direction too quickly. When the trading limit is hit, the market closes for the day. In periods of high price volatility (i.e., during the JBS Ransomware incident in 2021), expanded trading limits allow market participants to price in these market shocks. Once the incident is resolved, trading limits are generally re-set to their pre-shock levels.

Policy Alternatives to Regional Minimums

The following is a list of policy alternatives to regional minimums policymakers could pursue as a first step before pursuing regional minimums where effects have not been adequately quantified. However, these proposed policy alternatives have more to do with improving price transparency which we propose also have beneficial implications for price discovery.

Separate formula sales into formulas with and without quality premiums

Currently, formula transactions are classified by USDA as "the advance commitment of cattle for slaughter by any means other than through a negotiated purchase or a forward contract, using a method for calculating price in which the price is determined at a future date". A recent USDA-AMS sub-report comprising data from 2021, showed approximately 70% of cattle sold on a formula contract had a premium-discount schedule based on cattle quality associated with them. Advocates of regional minimums point to the approximately 30% of cattle sold on formula without a premium-discount schedule as cattle that should be sold in the negotiated cash market but are instead sold in the formula market. If USDA were to separate cattle sold as formula, either as a separate category or as a subcategory of formula contracts, then additional price information could occur. This could be implemented at minimal cost to USDA-AMS since data is collected as part of MPR.

Provide more information about the type of cattle reported under MPR

In August 2021, USDA-AMS released three reports specifying base price and price distribution for formula contracts. Reviewing base prices and price distributions over the last five months reveals significant variation in the base price for formula contracts, more so than should be observed (e.g., in some cases it is well over $50 per cwt). What this likely indicates is additional information not being reported causing prices to change (i.e., cattle credence attributes). Without additional information, reported base prices are less useful to producers. One way for reports to be more useful for producers and businesses would be to provide additional information about these characteristics. The difficulty in providing additional information improving decision-making needs to be balanced with providing too much information either compromising USDA confidentiality agreements or confusing industry participants. What information and how this should be presented should be studied before releasing additional information for existing reports.

Report base price by region under new USDA-AMS reports

While the new reports released by USDA-AMS in August 2021 substantially improved cattle market transparency, reports can be improved by providing regional breakdowns in formula base prices. For advocates of regional minimums concerned with the appropriate use of base prices, these reports fell short of accomplishing complete formula pricing transparency as the real interest lies in whether base prices significantly differ across regions for formula contracts. Adding regional base prices would be a minimal additional cost to USDA AMS since the data is gathered and aggregated into a national report from regional numbers.

Percent of cattle sold under each contract in the cattle contract library

The cattle contract library, recently passed in the U.S. House of Representatives, appears to address many of the concerns posed in the industry regarding cattle transparency, namely the types of contracts being used and the specifications and head committed in those contracts. The cattle contract library should provide greater transparency in the market regarding how cattle are priced if the information is separated by region and the federal government provides funding for educational efforts allowing industry representatives to convey market information. However, the cattle contract library does not resolve concerns advocates for regional minimums have about thinning cash markets and their effects on accurate price discovery. We believe the cattle contract library is an appropriate first step forward.

Conclusions

Anytime the government intervenes in a competitive market there is potential for indirect costs to be incurred by market participants. Economists commonly refer to these as "deadweight loss" or "inefficiencies". This of course rests on the assumption that the market is functioning competitively. Whether regional minimums would create this deadweight loss or would resolve a market failure of robust trade was not the objective of this report. This report showed how the proposed policies differ; showed how these policies aligned with historical market behavior; provided alternative specifications to regional minimums; and suggested policy alternatives to regional minimums.

The policy goal of increasing price discovery generally focuses on increasing the level of negotiated purchases in each region. If price discovery is an issue, then there are few ways to improve it other than increasing the number of animals traded. Assuming price discovery was sufficient, there still would remain concerns about what is influencing the variation in weighted average price. This is the role of improved price transparency. The objective of those policies should be to better inform market participants; reduce uncertainty and risk; and improve management decisions throughout the supply chain by addressing what price signals are and are not communicating. AMAs provide this information to market participants allowing for better coordinated marketing activities between cattle feeders and processors to reduce uncertainty and risk. This information is primarily in the form of premiums and discounts for cattle quality and other credence attributes. Tradeoffs of more robust market information *with* relevant price information vs. more efficient marketing arrangements imply benefits and costs from either approach. Any benefits or costs are allocated up and down the supply chain, affecting cattle market prices and quantities supplied, wholesale beef prices, retail meat prices and quantities demanded, price margins, international trade competitiveness, and demand for other proteins.

If more negotiated trade is required at the expense of fewer AMAs, there may be more cash market activity. This does not necessarily imply prices received by producers will be greater than what is currently observed. For this to occur there would need to be price downward skewness in the distribution of market prices which, with more trade, would approximate a normal distribution. Regardless of if prices are higher because of increased negotiated purchases, there may be more confidence the reported price reflects the hypothetical competitive price but not necessarily any expectation that market prices would be different from current levels.

Forcing more negotiated trade within 14 days of harvest and less forward contracting or AMAs would require both producers and processors to manage more price risk via futures and options, or federal livestock price insurance products like Livestock Risk Protection (LRP) administered by the USDA-Risk Management Agency (USDA-RMA). These all relate to managing the output price of cattle and do not affect feeding margins or input costs. The industry has made considerable progress in attempting to align beef production with consumer preferences for specific beef attributes, be they quality or credence attributes. If regional minimums were implemented, it would be important to preserve this progress which is partially implemented and coordinated through AMAs.

These considerations are mentioned to identify important conceptual issues and questions for further discussion. Other studies or commentaries have examined some of these issues and additional studies are likely to further expand and clarify previous and future concerns.

References

Adjemian, Michael K., Tina L. Saitone, and Richard J. Sexton. "A framework to analyze the performance of thinly traded agricultural commodity markets." *American Journal of Agricultural Economics* 98, no. 2 (2016): 581-596.

Anderson, J.D., D. Hudson, A. Harris, and S. Turner. 2007. A New Taxonomy of Thin Markets. Paper presented at the Southern Agricultural Economics Association Meeting, February 4–7.

Coffey, Brian K., Glynn T. Tonsor, and Ted C. Schroeder. "Impacts of changes in market fundamentals and price momentum on hedging live cattle." *Journal of Agricultural and Resource Economics* 43, no. 1835-2018-703 (2018): 18-33.

Hayenga, M.L., ed. 1979. Pricing Problems in the Food Industry (With Emphasis on Thin Markets). Studies in the Organization and Control of the US Food System, N.C. Project 117, Monograph 7, February

Franken, Jason RV, and Joe L. Parcell. "Evaluation of market thinness for hogs and pork." *Journal of Agricultural and Applied Economics* 44, no. 4 (2012): 461-475.

Koontz, Stephen R. "Marketing Method Use in Trade of Fed Cattle: Causes and Consequences of Thinning Cash Markets and Potential Solutions." In *American Applied Economics Association & Western Agricultural Economics Association Joint Annual Meeting, San Francisco, California*. 2015.

Mueller, W.F., B.W. Marion, M.H. Sial, and F.E. Geithman. 1996. Cheese Pricing: A Study of the National Cheese Exchange. Food System Research Group, University of Wisconsin, Madison

National Cattlemen's Beef Association (NCBA). 2020. 75% Plan. Accessed December 2021. https://www.ncba.org/Media/NCBAorg/Docs/ncba-regional-triggers-subgroup-report-overview-presentation_10-16-2020-53.pdf

Tomek, William G. "Price behavior on a declining terminal market." *American Journal of Agricultural Economics* 62, no. 3 (1980): 434-444.

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Kansas Weekly Directly Slaughter Cattle - Formula, Grid and Contract Purchases (LM_CT140). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Nebraska Weekly Directly Slaughter Cattle - Formula, Grid and Contract Purchases (LM_CT141). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Colorado Weekly Direct Slaughter Cattle - Formula, Grid and Contract Purchases (LM_CT146). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. IA-MN Weekly Direct Slaughter Cattle - Formula, Grid and Contract Purchases (LM_CT147). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Texas-Oklahoma Weekly Direct Slaughter Cattle - Negotiated Purchases (LM_CT156). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Kansas Weekly Direct Slaughter Cattle - Negotiated Purchases (LM_CT157). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Nebraska Weekly Direct Slaughter Cattle - Negotiated Purchases (LM_CT158). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. Colorado Weekly Weighted Average Direct Slaughter Cattle – Negotiated (LM_CT166). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

USDA Agricultural Marketing Serivce (USDA-AMS). 2021. IA/MN Weekly Weighted Average Direct Slaughter Cattle – Negotiated (LM_CT167). Accessed January 2022. https://mpr.datamart.ams.usda.gov/

U.S. House of Representatives Bill 8489 (H.R. 8489). 2020. To make improvements with respect to the pricing of cattle in the United States, and for other purposes. Accessed December 2021. https://www.congress.gov/

U.S. House of Representatives Bill 8557 (H.R. 8557). 2020. To amend the Packers and Stockyards Act, 1921, to establish a cattle contract library, and for other purposes. Accessed December 2021. https://www.congress.gov/

U.S. House of Representatives Bill 3766 (H.R. 3766). 2021. Optimizing the Cattle Market Act of 2021. Accessed December 2021. https://www.congress.gov/

U.S. House of Representatives Bill 5609 (H.R. 5609). 2021. Cattle Contract Library Act of 2021. Accessed December 2021. https://www.congress.gov/

U.S. House of Representatives Bill 5992 (H.R. 5992). 2021. Cattle Price Discovery and Transparency Act of 2021. Accessed December 2021. https://www.congress.gov/

U.S. Senate Bill 4647 (S.B. 4647). 2020. A bill to amend the Packers and Stockyards Act, 1921, to establish a cattle contract library, and for other purposes. Accessed December 2021. https://www.congress.gov/

U.S. Senate Bill 543 (S.B. 543). 2021. Cattle Market Transparency Act of 2021. Accessed December 2021. https://www.congress.gov/

U.S. Senate Bill 3229 (S.B. 3229). 2021. Cattle Price Discovery and Transparency Act of 2021. Accessed December 2021. https://www.congress.gov/

Xia, T., and R.J. Sexton. 2004. The Competitive Implications of Top-of-the-market and Related Contract-pricing Clauses. *American Journal of Agricultural Economics* 86 (1): 124–38.

Ward, Clement E., and Seung-Churl Choi. "Evaluating Potential Changes in Price Reporting Accuracy." (1998).

Zhang, T., and B.W. Brorsen. 2010. The Long-Run and Short-Run Impact of Captive Supplies on the Spot Market Price: An Agent-Based Artificial Market. *American Journal of Agricultural Economics* 92 (4): 1181–94

Supporting Tables

Table 1. Regional Minimums Proposals in Introduced Legislation

Bill	**S. 4647**	**H.R.8557**	**S.543**	**H.R.3766**	**S.3229**	**H.R.5992**
Date Introduced	9/22/2020	10/9/2020	3/2/2021	6/8/2021	11/17/2021	11/17/2021
Quantity of Cattle	Yes	Yes	Yes	Yes	No	No
Percentage of Cattle	Yes	Yes	Yes	Yes	Yes	Yes
Number of Transactions	No	No	Yes	Yes	No	No
Frequency	Week	Week	Week	Week	Week	Week
A packer or company	Packer	Packer	Packer	Packer	Packer	Packer
Purchase Type Required	negotiated OR negotiated grid purchases	negotiated OR negotiated grid purchases	negotiated OR negotiated grid purchases	negotiated OR negotiated grid purchases	negotiated OR negotiated grid purchases[1]	negotiated OR negotiated grid purchases[1]
Adjustment for Market Shocks	No	No	No	Yes	No	No
Duration	Not specified	Not specified	<= 24 months	<= 24 months	<= 24 months	<= 24 months
Who Sets Minimums	The Secretary	The Secretary	The Secretary, in consultation with the Chief Economist	The Secretary, in consultation with the Chief Economist	The Secretary, in consultation with the Chief Economist	The Secretary, in consultation with the Chief Economist
Reporting Regions	As designated by the USDA-Agricultural Marketing Service	As designated by the USDA-Agricultural Marketing Service	As designated by the USDA-Agricultural Marketing Service	As designated by the USDA-Agricultural Marketing Service	As designated by the USDA-Agricultural Marketing Service	As designated by the USDA-Agricultural Marketing Service
Initial Requirement	Not specified	Not specified	>= purchases in that region from the 3 previous calendar years.	Not specified	>= purchases in that region from the preceding 18 months AND no initial regional mandatory minimum established for a reporting region shall exceed 300 percent of the lowest initial regional mandatory minimum[2]	>= purchases in that region from the preceding 18 months AND no initial regional mandatory minimum established for a reporting region shall exceed 300 percent of the lowest initial regional mandatory minimum[2]

Note: [1] This provides stricter language regarding where the purchases should take place. It states that the purchases for the mandatory minimum should occur in "the region in which the packer processing plant is located". This would seem to imply that plants must purchase all the required negotiated cattle in the state in which they are located and by converse imply that a plant must be in the state where it purchases the cattle; [2] This contains undefined qualifying information about what regions will be included in setting the minimum standard. It states that for a region to be included it must have "publicly reported a majority of weekly market information during the previous 18 months". The phrase "majority of weeks" is not defined and whether this region would still be required to meet the minimums in future quarters.

Table 2. Categorization of Policy Alternatives Using Weekly Data to Create Regional Minimum Levels

Policy Alternative	Data Frequency Used to Create Minimums	How Robust Levels of Negotiated Purchases are Derived	Length Minimums in Effect	Current Policy Matching These Specifications
1	Weekly	Ad-hoc	Weekly	
2	Weekly	Ad-hoc	Monthly	
3	Weekly	Ad-hoc	Quarterly	
4	Weekly	Ad-hoc	Yearly	
5	Weekly	Ad-hoc	Multi-year	H.R. 8489[a]
6	Weekly	Historical	Weekly	
7	Weekly	Historical	Monthly	
8	Weekly	Historical	Quarterly	
9	Weekly	Historical	Yearly	
10	Weekly	Historical	Multi-year	S.B. 3229, H.R.5992
11	Weekly	Calculated	Weekly	
12	Weekly	Calculated	Monthly	
13	Weekly	Calculated	Quarterly	NCBA 75% Plan
14	Weekly	Calculated	Yearly	
15	Weekly	Calculated	Multi-year	

Notes: [a] This bill does not specify how long the regional minimums are in effect before they can be changed. In absence of this, we assume that the regional minimums are put in place in perpetuity which we categorize as multi-year.

Table 3. Percent of Total Weeks Above Different Minimum Thresholds by Region, 2013-2021.

Minimum Negotiated Trade (Cash + Grid) in the Region	Percent of Weeks Meeting Minimum Negotiated Trade In:					
	CO	IA-MN	KS	NE	TX-OK-NM	NE-CO
0	97.22	99.36	99.36	99.36	99.36	99.36
10	48.39	99.36	87.37	99.36	48.61	99.36
20	7.71	98.50	42.18	98.93	1.93	98.29
30	1.07	97.22	5.14	92.08	0.00	87.15
40	0.00	95.50	0.86	57.60	0.00	62.74
50	0.00	83.30	0.43	14.13	0.00	28.48
60	0.00	50.54	0.43	0.64	0.00	9.42
70	0.00	13.49	0.21	0.00	0.00	2.36
80	0.00	0.21	0.00	0.00	0.00	0.21
90	0.00	0.00	0.00	0.00	0.00	0.00
100	0.00	0.00	0.00	0.00	0.00	0.00

Data source: USDA-AMS (2021), authors calculations
Note: Graying is the minimum threshold under H.R. 8489.

Table 4. Percent of Weeks Within Region Failing to Meet Minimum by Number of Weeks Included in Historical Average and Number of Weeks Minimum is Valid for, 2013-2021

Weeks Included in Historical Average	Number of Weeks Regional Minimums Valid For:	Percent of Weeks Within Region Failing to Meet Minimum:					
		CO	IA-MN	KS	NE	TX-OK-NM	NE-CO
52	26	36.17	0.00	7.92	0.00	54.60	0.00
52	52	40.72	0.00	9.63	0.00	56.83	0.00
52	104	36.11	0.00	6.07	0.00	41.03	0.00
52	156	32.46	0.00	4.08	0.00	32.59	0.00
78	26	40.31	0.00	9.14	0.00	55.87	0.00
78	52	35.08	0.00	8.37	0.00	49.61	0.00
78	104	31.49	0.00	4.31	0.00	31.87	0.00
78	156	32.83	0.00	3.07	0.00	35.40	0.00
104	26	32.58	0.00	7.17	0.00	46.46	0.00
104	52	32.39	0.00	3.54	0.00	31.89	0.00
104	104	30.64	0.00	2.47	0.00	26.10	0.00
104	156	37.99	0.00	2.74	0.00	32.96	0.00
156	26	31.32	0.00	7.85	0.00	49.76	0.00
156	52	30.9	0.00	3.81	0.00	33.63	0.00
156	104	28.04	0.00	2.56	0.00	26.51	0.00
156	156	34.86	0.00	2.79	0.00	33.88	0.00

Note: Dark grayed area are the parameters specified in S.B. 3229, H.R.5992

Table 5. Percent of Quarters That Have 75% or More Weeks Passing Levels of Robust Trade, 2013-2021.

Percent of Estimated Robust Trade (%)	Percent of Quarters:					
	CO	IA-MN	KS	NE	TX-OK-NM	NE-CO
25	13.89	0.00	0.00	0.00	5.56	0.00
50	25.00	0.00	5.56	0.00	13.89	0.00
75	44.44	0.00	19.44	0.00	38.89	0.00
90	63.89	0.00	25.00	0.00	58.33	2.78
100	80.56	0.00	47.22	2.78	77.78	8.33
110	80.56	0.00	63.89	5.56	83.33	19.44
125	83.33	0.00	86.11	36.11	88.89	55.56
150	88.89	2.78	94.44	69.44	97.22	83.33

Note: The estimated number of head of robust trade at the 100% level is 5,000 for CO, 16,000 for IA-MN, 21,000 for KS, 31,000 for NE, 13,000 for TX-OK-NM, and 36,000 for NE-CO (Koontz, 2014). This assumes that the industry is confident that the observed prices will be within $1 per cwt. of the true price 90% of the time; On average, weekly transactions in CO is 63% of the estimated robust levels, IA-MN is 170%, KS 78%, NE 118%, TX-OK-NM 69%, and NE-CO 110%; The estimated robust levels of trade by region at 100% would be equivalent to a minimum of level of negotiated trade as a percent of total trade of 17% in CO, 37% in IA-MN, 24% in KS, 36% in NE, 15% in TX-OK-NM, and 31% in NE-CO.

Table 6. Percent of Total Weeks Where Observed Trade Was Greater Than Estimated Robust Trade, 2013-2021.

Percent of Estimated Robust Trade (%)	Percent of Weeks:					
	CO	IA-MN	KS	NE	TX-OK-NM	NE-CO
25	75.69	98.51	95.74	99.36	99.36	88.49
50	54.37	97.23	83.80	98.72	98.29	71.43
75	33.90	95.52	61.19	93.18	88.27	41.58
90	23.03	94.03	45.84	80.81	74.41	25.59
100	17.91	90.62	31.77	71.00	62.47	18.34
110	15.35	87.63	22.39	56.93	49.47	11.94
125	11.30	79.96	10.66	39.02	29.64	6.18
150	6.18	65.03	4.26	15.99	9.17	1.71

Note: The estimated number of head of robust trade at the 100% level is 5,000 for CO, 16,000 for IA-MN, 21,000 for KS, 31,000 for NE, 13,000 for TX-OK-NM, and 36,000 for NE-CO (Koontz, 2014). This assumes that the industry is confident that the observed prices will be within $1 per cwt. of the true price 90% of the time; On average, weekly transactions in CO is 63% of the estimated robust levels, IA-MN is 170%, KS 78%, NE 118%, TX-OK-NM 69%, and NE-CO 110%; The estimated robust levels of trade by region at 100% would be equivalent to a minimum of level of negotiated trade as a percent of total trade of 17% in CO, 37% in IA-MN, 24% in KS, 36% in NE, 15% in TX-OK-NM, and 31% in NE-CO.

Table 7. Percent of Quarters Passing Given Different Levels of Robust and Different Levels of Weeks Required to Meet Regional Minimums, 2013-2021

Percent of Robust Trade[a]	Percent of Weeks[b]	USDA-AMS Cattle Feeding Region					
		CO	IAMN	KS	NE	TXOKNM	NE-CO
25	5	69.44	13.89	36.11	2.78	36.11	2.78
25	25	33.33	-	2.78	-	13.89	-
25	50	16.67	-	-	-	8.33	-
25	75	13.89	-	-	-	5.56	-
25	95	2.78	-	-	-	-	-
25	100	2.78	-	-	-	-	-
50	5	97.22	27.78	66.67	5.56	72.22	11.11
50	25	63.89	-	19.44	-	41.67	-
50	50	38.89	-	13.89	-	19.44	-
50	75	25.00	-	5.56	-	13.89	-
50	95	11.11	-	-	-	8.33	-
50	100	11.11	-	-	-	8.33	-
75	5	97.22	44.44	91.67	61.11	94.44	61.11
75	25	88.89	-	52.78	2.78	83.33	13.89
75	50	75.00	-	30.56	-	61.11	2.78
75[c]	75	44.44	-	19.44	-	38.89	-
75	95	16.67	-	5.56	-	16.67	-
75	100	16.67	-	5.56	-	16.67	-
90	5	97.22	52.78	97.22	86.11	97.22	91.67
90	25	91.67	-	83.33	27.78	88.89	38.89
90	50	83.33	-	44.44	2.78	83.33	13.89
90	75	63.89	-	25.00	-	58.33	2.78
90	95	33.33	-	11.11	-	33.33	-
90	100	33.33	-	11.11	-	33.33	-
100	5	100.00	66.67	100.00	97.22	100.00	94.44
100	25	97.22	5.56	94.44	52.78	91.67	61.11
100	50	88.89	-	75.00	11.11	86.11	30.56
100	75	80.56	-	47.22	2.78	77.78	8.33
100	95	36.11	-	19.44	-	41.67	-
100	100	36.11	-	19.44	-	41.67	-
110	5	100.00	77.78	100.00	100.00	100.00	100.00
110	25	97.22	13.89	97.22	72.22	97.22	80.56
110	50	88.89	-	91.67	41.67	91.67	52.78
110	75	80.56	-	63.89	5.56	83.33	19.44
110	95	44.44	-	22.22	2.78	47.22	2.78
110	100	44.44	-	22.22	2.78	47.22	2.78
125	5	100.00	94.44	100.00	100.00	100.00	100.00
125	25	97.22	30.56	100.00	88.89	100.00	97.22
125	50	94.44	-	97.22	66.67	97.22	77.78
125	75	83.33	-	86.11	36.11	88.89	55.56
125	95	55.56	-	47.22	2.78	75.00	2.78
125	100	55.56	-	47.22	2.78	75.00	2.78

Note: [a] Percent of the estimated robust trade by region required to be met each week; [b] Minimum percentage of weeks required to meet regional minimums. For example, 5% implies that more than 5% of all weeks within the quarter are required to meet regional robust trade.; [c] Dark gray shading represents NCBA's proposed 75% plan.

Table 8. Within-year Estimated Robust Levels of Negotiated Trade by C and P and Region Conditional on Historical Negotiated Trade and Price Variation, 2013-2021.

				P=75%				P=90%			
Year	Avg. Head	Avg. Transactions (40 hd. per transaction)	Historical Variance	$0.25/cwt.	$0.50/cwt.	$0.75/cwt.	$1.50/cwt.	$0.25/cwt.	$0.50/cwt.	$0.75/cwt.	$1.50/cwt.
Panel (a): Colorado											
2013	2824	71	17.63	1128	282	71	31	2820	705	176	78
2014	2524	63	84.97	5438	1359	340	151	13595	3399	850	378
2015	1679	42	232.55	14883	3721	930	413	37208	9302	2325	1034
2016	3549	89	144.71	9261	2315	579	257	23154	5788	1447	643
2017	4900	123	83.56	5348	1337	334	149	13370	3342	836	371
2018	2749	69	47.93	3068	767	192	85	7669	1917	479	213
2019	1122	28	133.41	8538	2134	534	237	21345	5336	1334	593
2020	5037	126	20.08	1285	321	80	36	3214	803	201	89
2021	2097	52	92.84	5942	1485	371	165	14854	3714	928	413
Panel (b): Iowa-Minnesota											
2013	16682	417	11.71	750	187	47	21	1874	469	117	52
2014	19551	489	69.48	4446	1112	278	124	11116	2779	695	309
2015	18821	471	261.18	16716	4179	1045	464	41789	10447	2612	1161
2016	16797	420	155.07	9924	2481	620	276	24811	6203	1551	689
2017	17673	442	88.96	5693	1423	356	158	14233	3558	890	395
2018	23094	577	49.70	3181	795	199	88	7952	1988	497	221
2019	22820	570	63.60	4070	1018	254	113	10175	2544	636	283
2020	23729	593	67.20	4301	1075	269	119	10751	2688	672	299
2021	26689	667	57.59	3686	921	230	102	9215	2304	576	256
Panel (c): Kansas											
2013	19754	494	16.90	1082	270	68	30	2704	676	169	75
2014	11779	294	90.34	5782	1445	361	161	14454	3613	903	402
2015	9617	240	218.23	13967	3492	873	388	34917	8729	2182	970
2016	20048	501	144.45	9245	2311	578	257	23112	5778	1444	642
2017	20523	513	81.66	5226	1307	327	145	13066	3266	817	363
2018	19105	478	42.82	2741	685	171	76	6852	1713	428	190
2019	15995	400	67.76	4337	1084	271	120	10842	2710	678	301
2020	20804	520	69.54	4451	1113	278	124	11127	2782	695	309
2021	22301	558	56.59	3622	906	226	101	9055	2264	566	252

Table 8. Continued

Year	Avg. Head	Avg. Transactions (40 hd. per transaction)	Historical Variance	P=75%				P=90%			
				$0.25/cwt.	$0.50/cwt.	$0.75/cwt.	$1.50/cwt.	$0.25/cwt.	$0.50/cwt.	$0.75/cwt.	$1.50/cwt.
Panel (d): Nebraska											
2013	37196	930	11.80	755	189	47	21	1889	472	118	52
2014	37428	936	69.04	4419	1105	276	123	11046	2762	690	307
2015	32852	821	250.33	16021	4005	1001	445	40053	10013	2503	1113
2016	39170	979	151.71	9709	2427	607	270	24273	6068	1517	674
2017	40993	1025	87.95	5629	1407	352	156	14071	3518	879	391
2018	42932	1073	46.36	2967	742	185	82	7418	1855	464	206
2019	31314	783	61.80	3955	989	247	110	9888	2472	618	275
2020	32376	809	66.71	4269	1067	267	119	10673	2668	667	296
2021	32618	815	58.26	3729	932	233	104	9322	2331	583	259
Panel (e): Texas-Oklahoma-New Mexico											
2013	12014	300	16.32	1044	261	65	29	2611	653	163	73
2014	6219	155	97.49	6239	1560	390	173	15599	3900	975	433
2015	3235	81	205.93	13180	3295	824	366	32950	8237	2059	915
2016	8917	223	144.58	9253	2313	578	257	23133	5783	1446	643
2017	10512	263	91.85	5878	1470	367	163	14696	3674	918	408
2018	8481	212	39.11	2503	626	156	70	6258	1565	391	174
2019	6415	160	70.86	4535	1134	283	126	11337	2834	709	315
2020	10008	250	68.21	4366	1091	273	121	10914	2729	682	303
2021	13351	334	55.87	3576	894	223	99	8940	2235	559	248

Table 9. Percent of Total Weeks Above Different Minimum Thresholds by Region Using Different Rolling Averages of Share of Total Trade as Minimum Threshold, 2013-2021.

The number of Previous Weeks Included in Rolling Mean of Total Cattle Trade:	Percent of Weeks Satisfying Minimum Negotiated Trade In:					
	CO	IA-MN	KS	NE	TX-OK-NM	NE-CO
26 (0.5 yr.)	3.62	97.74	5.43	99.32	0.00	93.21
52 (1 yr.)	4.33	98.56	4.81	99.76	0.00	93.99
78 (1.5 yrs.)	4.87	98.46	5.90	99.74	0.00	93.33
156 (3 yrs.)	5.77	98.08	8.01	99.68	0.00	91.03
260 (5 yrs.)	4.81	98.56	5.77	99.04	0.00	86.54

Note: This table represents the share of the current share of negotiated trade relative to a rolling mean of the region's previous share of total trade.

Table 10. The Percentage of Weeks at the Minimum Trade, Above the Maximum Trade, or Between the Minimum and Maximum Trade Levels by Region, Ceiling Requirement, and Rolling Weeks, 2013-2021

	The ceiling is ≤ 1.5x Min			The ceiling is ≤ 3x Min			The ceiling is ≤ 4.5x Min		
	52 wks.	78 wks.	156 wks.	52 wks.	78 wks.	156 wks.	52 wks.	78 wks.	156 wks.
CO									
Min	41.59	38.46	32.69	41.59	38.46	32.69	41.59	38.46	32.69
In	42.31	47.44	59.29	58.41	61.54	67.31	58.41	61.54	67.31
Max	16.11	14.10	8.01	0.00	0.00	0.00	0.00	0.00	0.00
IA-MN									
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
In	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Max	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
KS									
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
In	7.93	1.03	0.00	72.12	77.69	94.87	87.98	90.26	100.00
Max	92.07	98.97	100.00	27.88	22.31	5.13	12.02	9.74	0.00
NE									
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
In	0.00	0.00	0.00	0.00	0.00	0.00	39.18	31.54	18.59
Max	100.00	100.00	100.00	100.00	100.00	100.00	60.82	68.46	81.41
TX-OK-NM									
Min	58.41	61.54	67.31	58.41	61.54	67.31	58.41	61.54	67.31
In	20.91	17.95	22.12	37.50	37.44	32.69	41.59	38.46	32.69
Max	20.67	20.51	10.58	4.09	1.03	0.00	0.00	0.00	0.00
NE-CO									
Min	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
In	0.00	0.00	0.00	7.45	1.03	0.00	58.89	58.21	73.08
Max	100.00	100.00	100.00	92.55	98.97	100.00	41.11	41.79	26.92

Note: The grayed area is the performance under S.B.3229 and H.R. 5992; Rows sum within Ceiling, rolling average, and state. For example, for Colorado under the 1.5x ceiling and 52 weeks rolling average, 41.59% of weeks were at the minimum level, 42.31% of weeks were between the minimum and maximum level, and 16.11% of the weeks were higher than the maximum level (41.59 + 42.31 + 16.11 = 100).

Table 11. The Percentage of Weeks Above the Minimum Trade by Different Levels of P, c, and Rolling Window by Region, 2013-2021.

Probability (%)	Pricing Accuracy ($/cwt.)	Rolling Window Used to Calculate Variance	USDA-AMS Region				
			CO	IA-MN	KS	NE	TX-OK-NM
70	0.5	78	0.00	15.09	1.87	23.28	0.00
70	0.5	156	0.00	0.48	0.62	7.07	0.00
70	1	78	8.27	65.97	55.30	78.59	29.11
70	1	156	0.18	40.13	36.38	51.35	16.22
70	1.5	78	23.56	82.66	75.88	83.99	52.81
70	1.5	156	2.88	59.55	55.72	67.78	34.30
70	3	78	61.15	87.64	83.16	83.99	76.09
70	3	156	32.73	74.96	67.57	67.78	64.03
75	0.5	78	0.00	11.56	0.62	11.64	0.00
75	0.5	156	0.00	0.00	0.42	2.08	0.00
75	1	78	6.29	61.32	48.02	74.64	19.96
75	1	156	0.00	36.12	32.64	46.78	11.85
75	1.5	78	18.88	79.13	72.56	83.99	49.69
75	1.5	156	1.80	53.13	49.48	66.74	32.22
75	3	78	56.83	87.64	82.95	83.99	75.26
75	3	156	27.34	74.64	67.57	67.78	61.75
80	0.5	78	0.00	8.35	0.42	4.37	0.00
80	0.5	156	0.00	0.00	0.42	0.62	0.00
80	1	78	3.96	54.57	40.75	67.36	10.81
80	1	156	0.00	31.30	26.40	40.33	7.69
80	1.5	78	13.85	76.40	65.49	83.58	42.62
80	1.5	156	0.72	47.67	42.62	63.41	26.40
80	3	78	50.90	87.48	82.54	83.99	73.60
80	3	156	22.48	74.32	67.36	67.78	59.25
85	0.5	78	0.00	4.82	0.00	0.42	0.00
85	0.5	156	0.00	0.00	0.00	0.00	0.00
85	1	78	1.98	43.18	27.65	59.46	1.04
85	1	156	0.00	22.47	18.92	37.01	1.46
85	1.5	78	8.99	69.50	58.42	80.87	32.22
85	1.5	156	0.36	42.86	36.80	54.89	18.50
85	3	78	44.06	87.32	81.08	83.99	70.06
85	3	156	14.75	73.19	66.53	67.78	52.18
90	0.5	78	0.00	1.61	0.00	0.00	0.00
90	0.5	156	0.00	0.00	0.00	0.00	0.00
90	1	78	0.18	27.77	9.56	42.62	0.00
90	1	156	0.00	8.03	5.82	25.16	0.00
90	1.5	78	4.50	58.43	44.49	71.10	16.63
90	1.5	156	0.00	33.71	29.11	42.83	10.60
90	3	78	30.40	86.04	78.38	83.99	61.12
90	3	156	5.94	66.93	62.99	67.78	40.75
95	0.5	78	0.00	0.00	0.00	0.00	0.00
95	0.5	156	0.00	0.00	0.00	0.00	0.00
95	1	78	0.00	8.35	0.42	4.37	0.00
95	1	156	0.00	0.00	0.42	0.62	0.00
95	1.5	78	0.36	33.39	15.38	50.10	0.21
95	1.5	156	0.00	11.24	8.11	29.94	0.00
95	3	78	13.85	76.40	65.49	83.58	42.62
95	3	156	0.72	47.67	42.62	63.41	26.40

Table 12. Estimated Weekly Percent of Total Transactions Grading Over 80% Choice to the Total Cattle Graded by Region, Marketing Method, and Delivery Method, 2014-2021

Marketing Method and Selling Basis	USDA-AMS Region:				
	CO	IA-MN	KS	NE	TX-OK-NM
Negotiated Cash					
Dressed	67.4	94.2	42.4	60.5	26.80
Live	73.4	98.5	28.3	62.2	8.36
Negotiated Grid					
Dressed	98.8	94.5	38.2	69.2	12.60
Live	48.2	97.3	40.6	81.2	15.50
Negotiated All (Cash + Grid)					
Dressed	89.6	94.1	40.3	62.3	12.90
Live	70.1	98.5	28.3	62.2	10.20
Formula					
Dressed	53.9	69.4	57.3	63.3	24.80
Live	44.1	85.6	48.7	58.5	21.30
Forward Contract					
Dressed	54.3	72.4	59.1	61.1	25.30
Live	49.8	73.8	48.9	70.4	11.90

Note: All estimates are significant at the 1% confidence level; Negotiated cash live and dressed include a combination of delivered and FOB transportation methods.

Supporting Figures

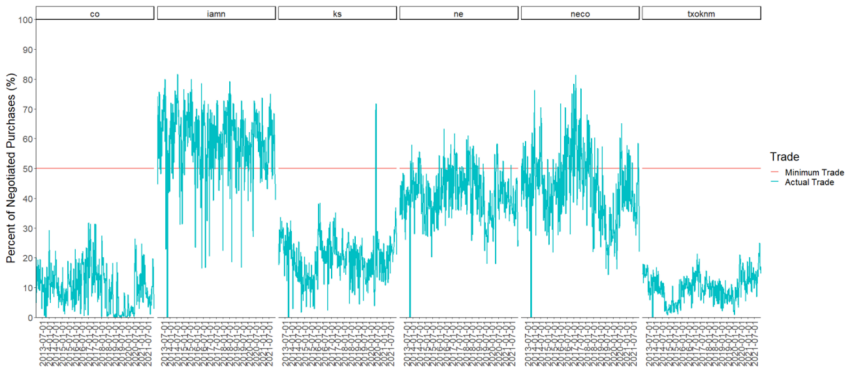

Figure 1. 50% Negotiated Trade Regional Minimum and Historical Trad by Region, 2013-2021.

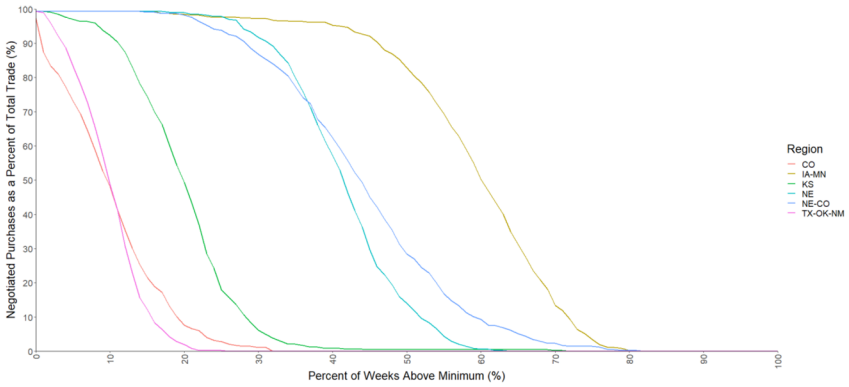

Figure 2. Percent of Weeks Passing Negotiated Trade Minimum Requirements by Region, 2013-2021.

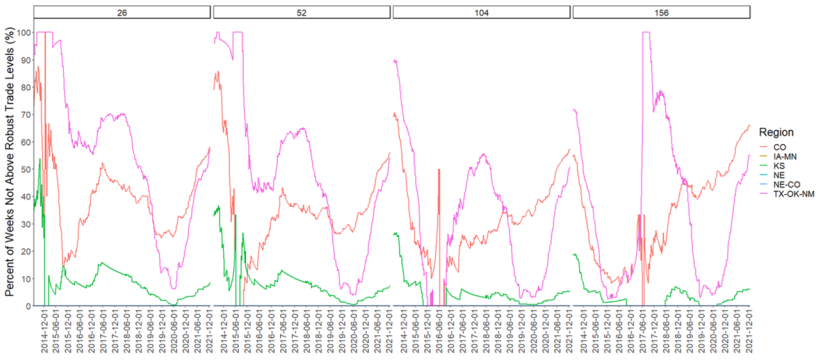

Figure 3. Historical Percent of Weeks Not Above Robust Trade Levels by Region and Number of Weeks Regional Minimums are Valid for Assuming Regional Minimums Were Set with a 78-week Historical Average, 2013-2021.

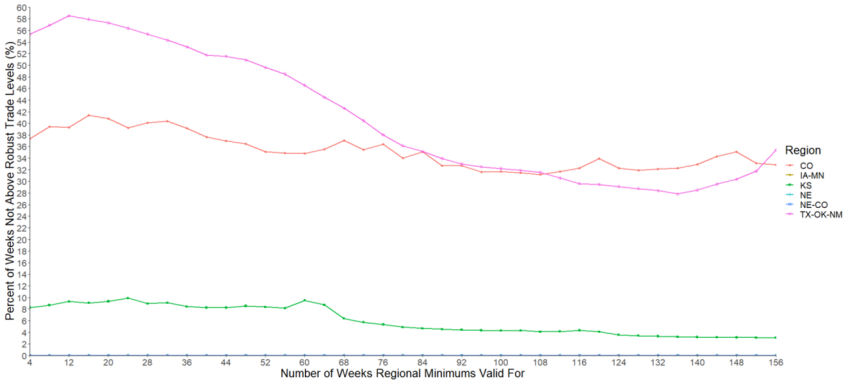

Figure 4. Percent of Weeks Not Above Robust Trade Levels by Region and Varying the Number of Weeks Regional Minimums are Valid for Assuming Regional Minimums Were Set with a 78-week Historical Average, 2013-2021.

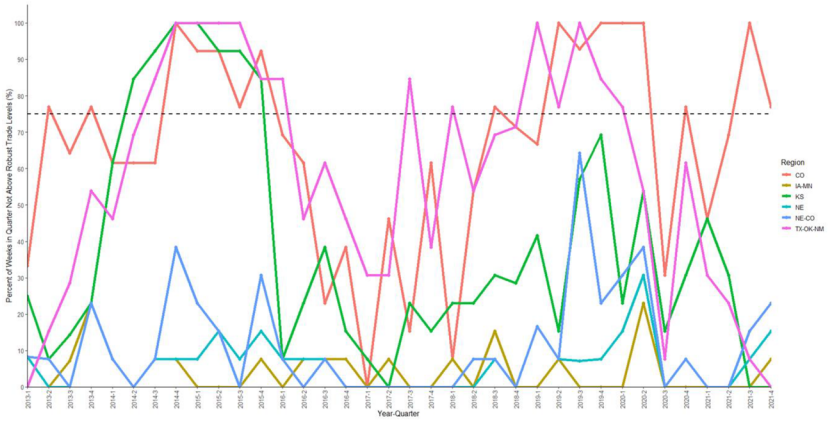

Figure 5. Negotiated Trade Minimum Requirements as Determined by Robust Trade by Region Compared Actual Negotiated Transactions, 2013-2021.
Note: NCBA 75% Policy Proposal

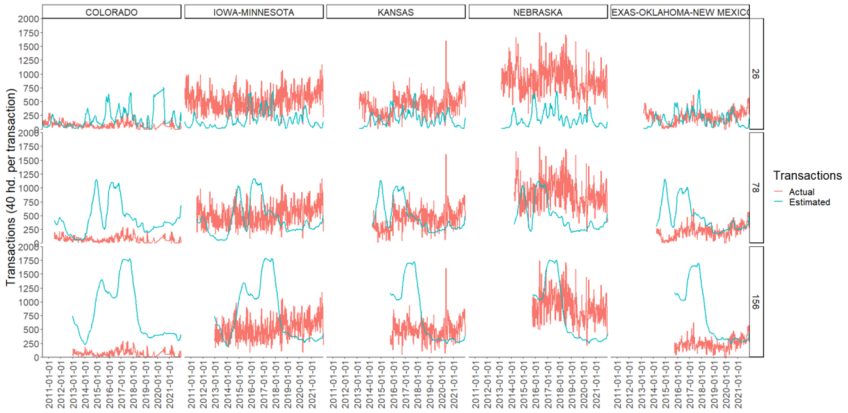

Figure 6. Estimated Levels of Robust Trade by Region and Rolling Variance of Weighted Average Price Assuming P=90% and c=$1.50/cwt., 2013-2021.

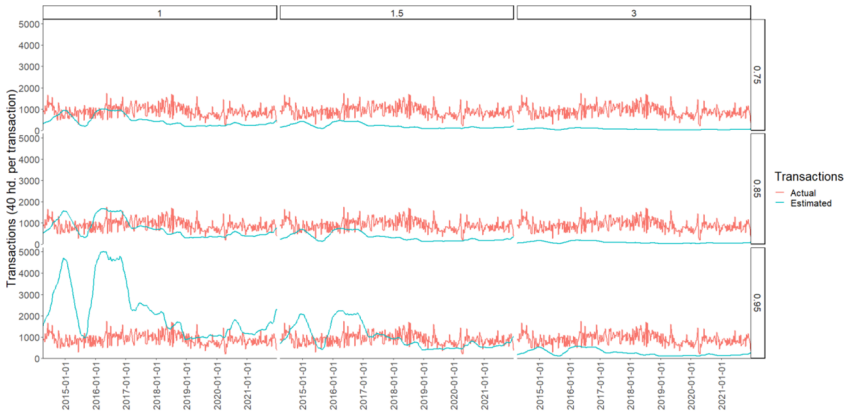

Figure 7. Estimated Levels of Robust Trade in Nebraska by Different Levels of Probability (P) and Pricing Accuracy (c) Assuming a 78-week Rolling Variance of Weighted Average Price, 2013-2021.

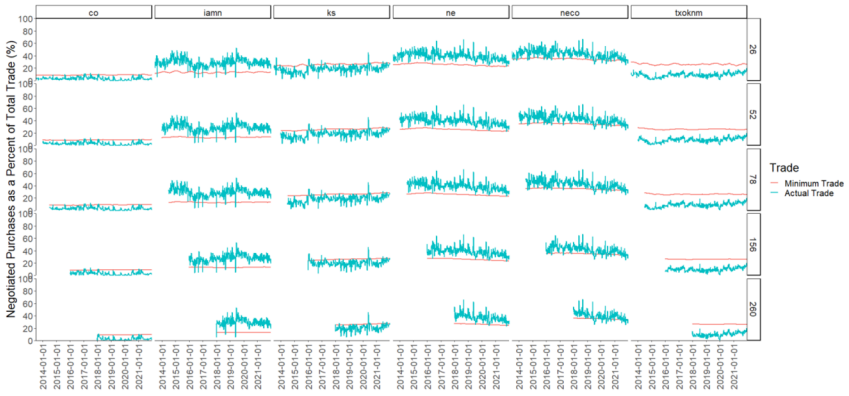

Figure 8. Weeks Passing Negotiated Trade Minimum Requirements as Determined by a Different Weekly Rolling Average of U.S. Trade by Region Compared to that Regions Current Share of All Negotiated Transactions, 2013-2021.

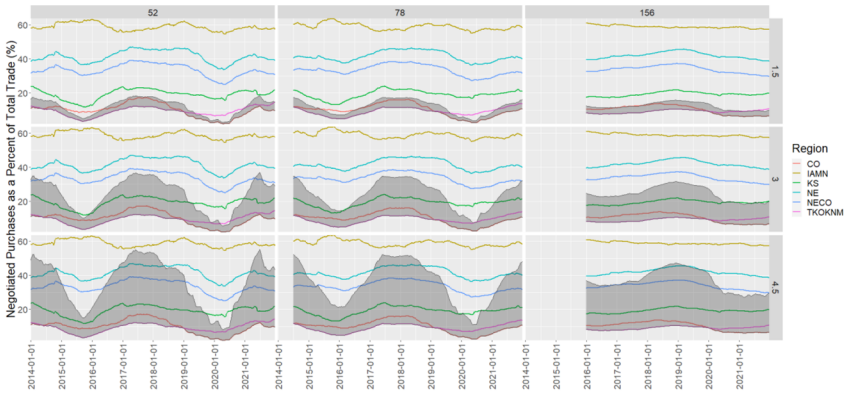

Figure 9. Negotiated Trade Minimum Requirements as Determined by Minimum Percentage Trade and Maximum Trade as 300x Minimum Trade Varying the Maximum Level and the Number of Weeks Included in the Rolling Moving Average, 2013-2021.

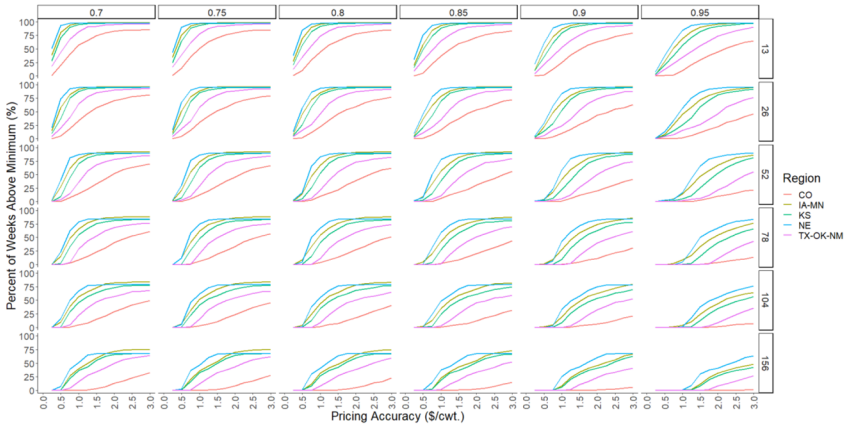

Figure 10. Estimated Percent of Weeks above Minimum Using Different Lengths of Rolling Variance, Probability (P), and Pricing Accuracy (c) by Region, 2013-2021.

United States Senate
COMMITTEE ON
AGRICULTURE, NUTRITION, AND FORESTRY
WASHINGTON, DC 20510–6000
202–224–2035

April 12, 2022

Dr. Seth Meyer
Chief Economist
United States Department of Agriculture
Jamie L. Whitten Building, Room 112-A
1400 Independence Avenue, SW
Washington, DC 20250

Dear Dr. Meyer:

The U.S. cattle industry consistently ranks among the largest segments of the U.S. farm economy. For 2022, the U.S. Department of Agriculture expects cash receipts for the cattle industry to exceed $78 billion, the second-highest of all-time. As the Ranking Member of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry (Agriculture Committee), I believe it is prudent to thoroughly consider and weigh the impacts the Cattle Price Discovery and Transparency Act of 2022 (S. 4030) may have on cattle producers and the U.S. beef industry.

Numerous economists from various Land Grant Universities and industry organizations have identified potential impacts the proposed legislation could have on market economics and efficiencies, price discovery, risk management strategies, beef quality and importantly, opportunities for farmers and ranchers to sustain their farms and ranches in rural America while being allowed the freedom to pursue the business opportunities they desire. I take consideration of this legislation very seriously and seek your assistance to facilitate an informed and exhaustive overview.

I recognize the negative financial impact recent black swan events have had on the profitability of cattle producers, and some of those same producers have expressed concern over how the legislation's mandate on the market acquisition of fed cattle, one of the main tenets of this proposal, will impact the U.S. cattle and beef industry. Under the proposed mandate, the Department of Agriculture would establish 5 to 7 covered regions that encompass the entire lower 48 states. Covered packers operating in those regions would be required to buy a certain amount of fed cattle through approved pricing mechanisms defined as cash, negotiated grid, a stockyard, or an online trading platform. Many provisions of this bill, such as the defined regions and the mandatory minimums, would be subject to interpretation by the Secretary of Agriculture.

As you know, on April 26, 2022, the Agriculture Committee will hold a full committee legislative hearing to review S. 4030. Considering the major potential impact this legislation may have in shifting how the cattle industry operates, I respectfully request written testimony from

you for the record. Specifically, as Chief Economist for the Department of Agriculture, I seek your expert opinion with respect to a mandate on the market acquisition of fed cattle on the following:

1. What are the crucial elements of S. 4030 that Congress should consider before amending or voting on this legislation?
2. Are there efficiency gains that would be realized or lost in the cattle and beef supply chains that could be detrimental or beneficial to domestic and global demand for U.S. beef?
3. Are there any economic tradeoffs for potentially lost efficiency gains and how would you quantify those tradeoffs?
4. Are there any implementation concerns that could significantly alter the performance of S. 4030?
5. What benefits, costs, unintended consequences, and uncertainties can you identify with S. 4030 and how would you quantify these elements?

I appreciate the work that you and your team do in the Office of the Chief Economist, and I look forward to reviewing your written testimony responsive to this request. If you have any questions, please don't hesitate to reach out to my Chief Economist, Dr. John Newton at john_newton@ag.senate.gov.

I would appreciate receiving your testimony by Friday, April 22, 2022.

Sincerely,



John Boozman
Ranking Member
U.S. Senate Committee on Agriculture, Nutrition, and Forestry


The U.S. Beef Supply Chain:
Issues and Challenges
Proceedings of a Workshop
on Cattle Markets
Kansas City, Missouri
June 3-4, 2021
Edited by
Bart L. Fischer
Joe L. Outlaw
David P. Anderson
Agricultural and Food Policy Center
Texas A&M University

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The U.S. Beef Supply Chain: Issues and Challenges

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Supported by:

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Introduction

Bart L. Fischer and Joe L. Outlaw[1]

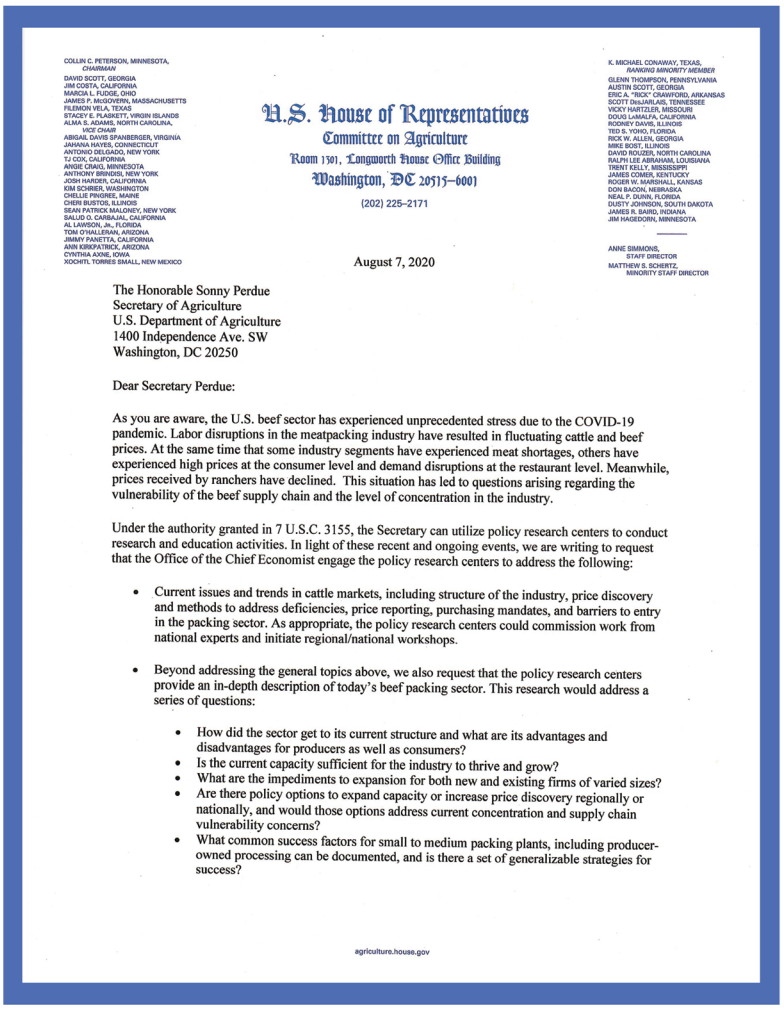
On the evening of August 9, 2019, a fire swept through the nation's second-largest beef packing plant in Holcomb, Kansas, taking it offline for four months. A few months later, the COVID-19 pandemic struck, halting production at many of the nation's packing plants and significantly disrupting beef supply chains. While these were significantly different events, the economic impacts were much the same: processing disruptions (coupled with a rapid change in retail demand in the case of COVID-19 as consumers shifted to eating at home and away from restaurants) sent wholesale and retail prices sharply higher. In contrast, disruptions in the processing sector resulted in less demand for fed cattle, which put downward pressure on fed and feeder cattle prices.

While economists offer explanations rooted in fundamental supply and demand relationships, many others view these events as evidence that the system is broken, particularly as it relates to fed cattle pricing. These events have led to renewed concerns about packer concentration, lack of transparency in fed cattle pricing, and insufficient packing capacity. These same events have also resulted in a litany of legislative proposals as policymakers have sought to respond to the concerns of their constituents.

While some of these issues are relatively new, many have been around for a very long time. For example, as long as ranchers have been raising cattle in the United States, there have been concerns about competition in the packing sector. In fact, as we write this, the *Packers and Stockyards Act*, which was designed "to assure fair competition and fair trade practices, to safeguard farmers and ranchers...to protect consumers...and to protect members of the livestock, meat, and poultry industries from unfair, deceptive, unjustly discriminatory and monopolistic practices..." turned 100 years old. While competition is a near-constant concern of many in the industry, it is an issue that has been thoroughly studied. As such, it is addressed in this volume for context, but the primary work on concentration is being done by others who focus more on enforcement – for example, the U.S. Department of Justice.

Following passage of the *Agricultural Marketing Act of 1946*, USDA's Agricultural Marketing Service (USDA-AMS) began collecting livestock pricing information from meat packers on a voluntary basis. Following concentration in the packing sector and an expansion of the use of alternative marketing arrangements (AMAs) beyond the traditional negotiated (or cash) sales, Congress passed

[1] Bart L. Fischer is a Research Assistant Professor with Texas A&M AgriLife Research. Joe L. Outlaw is a Regents Fellow, Professor & Extension Economist with Texas A&M AgriLife Extension Service. Both are Co-Directors of the Agricultural and Food Policy Center at Texas A&M University.



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August 7, 2020

The Honorable Sonny Perdue
Secretary of Agriculture
U.S. Department of Agriculture
1400 Independence Ave. SW
Washington, DC 20250

Dear Secretary Perdue:

As you are aware, the U.S. beef sector has experienced unprecedented stress due to the COVID-19 pandemic. Labor disruptions in the meatpacking industry have resulted in fluctuating cattle and beef prices. At the same time that some industry segments have experienced meat shortages, others have experienced high prices at the consumer level and demand disruptions at the restaurant level. Meanwhile, prices received by ranchers have declined. This situation has led to questions arising regarding the vulnerability of the beef supply chain and the level of concentration in the industry.

Under the authority granted in 7 U.S.C. 3155, the Secretary can utilize policy research centers to conduct research and education activities. In light of these recent and ongoing events, we are writing to request that the Office of the Chief Economist engage the policy research centers to address the following:

- Current issues and trends in cattle markets, including structure of the industry, price discovery and methods to address deficiencies, price reporting, purchasing mandates, and barriers to entry in the packing sector. As appropriate, the policy research centers could commission work from national experts and initiate regional/national workshops.

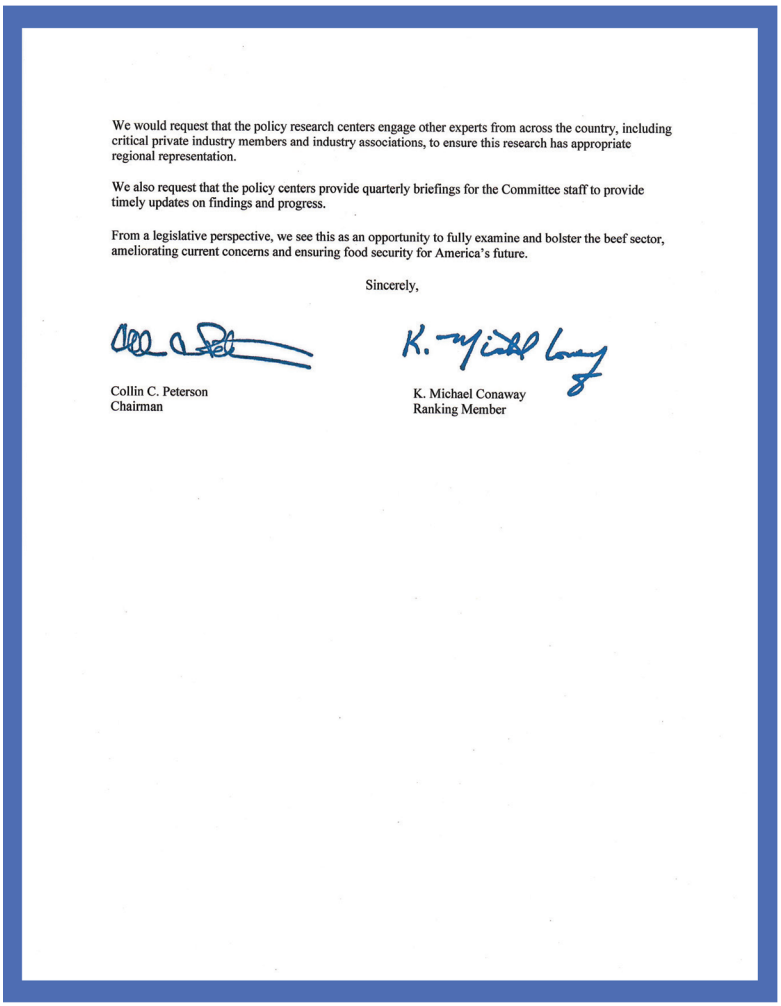
- Beyond addressing the general topics above, we also request that the policy research centers provide an in-depth description of today's beef packing sector. This research would address a series of questions:

  - How did the sector get to its current structure and what are its advantages and disadvantages for producers as well as consumers?
  - Is the current capacity sufficient for the industry to thrive and grow?
  - What are the impediments to expansion for both new and existing firms of varied sizes?
  - Are there policy options to expand capacity or increase price discovery regionally or nationally, and would those options address current concentration and supply chain vulnerability concerns?
  - What common success factors for small to medium packing plants, including producer-owned processing can be documented, and is there a set of generalizable strategies for success?

agriculture.house.gov

the *Livestock Mandatory Reporting Act of 1999* (LMR) which went into effect in April 2001. With respect to cattle, the act required price reporting for live cattle and boxed beef.

Growth in the use of AMAs has led to less use of negotiated cash pricing. Fewer cattle traded in a negotiated cash framework has led to worries about price discovery. As many (or most) AMAs are based on negotiated trades happening in the market, some argue that the lack of negotiated trades would result in a lack of adequate price discovery, affecting all cattle prices. The assumption of many is that more discovery (i.e. negotiated trades) would lead to higher producer prices. That assumption is not necessarily true.



We would request that the policy research centers engage other experts from across the country, including critical private industry members and industry associations, to ensure this research has appropriate regional representation.

We also request that the policy centers provide quarterly briefings for the Committee staff to provide timely updates on findings and progress.

From a legislative perspective, we see this as an opportunity to fully examine and bolster the beef sector, ameliorating current concerns and ensuring food security for America's future.

Sincerely,

Collin C. Peterson
Chairman

K. Michael Conaway
Ranking Member

With LMR set to expire on September 30, 2020, many saw an opportunity to address a number of lingering concerns with fed cattle pricing. Instead, Congress chose to extend LMR authority through September 30, 2021, and the bipartisan leadership of the Committee on Agriculture in the U.S. House of Representatives asked USDA to commission a study to look into the issues surrounding fed cattle pricing (see pages *vi-vii*). Ultimately, USDA partnered with the Agricultural and Food Policy Center (AFPC) at Texas A&M University, and this book is a culmination of that request.[2]

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

While this book focused primarily on fed cattle pricing, Congress also asked us to weigh in on packing capacity issues as well. In many ways, packing capacity and fed cattle pricing are inextricably linked. As a result, capacity is addressed in a number of places throughout the book. With that said, on July 9, 2021, the Biden Administration announced that it was investing $500 million "to expand meat and poultry processing capacity" along with "$150 million for existing small and very small processing facilities to help them weather COVID, compete in the marketplace and get the support they need to reach more customers."[3] As a result, some of the concern about packing capacity may dissipate as loans and grants are made available to bring additional capacity online.

In carrying out our work, we commissioned papers from noted experts around the country on a variety of topics, ranging from a history of how the industry arrived at this point to an initial evaluation of voluntary proposals introduced by industry to address some of these pressing challenges. AFPC hosted a workshop in Kansas City, MO, on June 3-4, 2021, where the authors of the respective papers presented their findings. Four discussants – representing a diverse cross-section of the industry – were invited to offer a formal response. The workshop was open to the public, and participants offered a number of helpful comments.

In Chapter 1, Derrell Peel provides a historical overview of how the cattle and beef markets have evolved over time. In Chapter 2, John Anderson, Andrew McKenzie, and James Mitchell distinguish between price discovery and price determination while addressing concerns about market thinness and undertaking an empirical evaluation of market efficiency. In Chapter 3, Christopher Bastian, Chian Jones Ritten, and Amy Nagler provide an overview of risks and agent incentives, and they tie those to fed cattle market implications. In Chapter 4, Ted Schroeder, Brian Coffey, and Glynn Tonsor closely examine the incentives and tradeoffs of marketing agreements and cash negotiated trade. In Chapter 5, Stephen Koontz revisits the RTI Livestock and Meat Marketing Study (LMMS) and uses those findings to provide an initial evaluation of various proposals to mandate minimum levels of negotiated (or cash) trade. In Chapter 6, Joshua Maples and Kenneth Burdine examine market reporting and transparency, with a particular focus on the role that contract libraries play in providing transparency. In Chapter 7, Scott Brown highlights lessons learned from other agricultural markets. In Chapter 8, David Anderson, Charley Martinez, and Justin Benavidez examine the implications of fed cattle pricing changes on the cow-calf sector. In Chapter 9, Justin Benavidez and David Anderson examine negotiated cash trade targets – specifically, the 75% Plan developed by the National Cattlemen's Beef Association (NCBA). Finally, in Chapter 10, David Anderson provides a summary of the comments made by the discussants and participants at the workshop in Kansas City, MO. The box on pages *x-xi* provides a summary of the key findings from our work.

While we offer these findings – which can largely be characterized as urging caution before changing a system that has resulted in cattle producers capturing

[3] https://www.usda.gov/media/press-releases/2021/07/09/usda-announces-500-million-expanded-meat-poultry-processing

significant value over the last three decades – we acknowledge the palpable frustration of many producers throughout the country. In many cases, their frustration seemingly stems from feeling like they aren't receiving the prices they think they should and the fact that economists often simply urge caution instead of offering finite answers. For example, as noted in the findings, economists are generally quite comfortable saying that price discovery is still quite robust, but we can't pinpoint the point at which that would cease to be the case. Unfortunately, we are limited to what we know, and that is what we've endeavored to outline in this book. Further, finite answers may not exist (and may never exist) because they are situation specific, and circumstances in the market are constantly changing.

With that said, if Congress and/or USDA wish to make even more informed decisions, then additional research is in order. While Congress could certainly revisit confidentiality requirements in the context of reauthorizing LMR – for example, making more data publicly available for analysis – there are legitimate reasons for making sure confidential business data is protected. On the other hand, USDA has collected enormous volumes of data via LMR over the last two decades, much of which has never been independently analyzed. As such, in lieu of relaxing confidentiality requirements, Congress may wish to consider requiring USDA to contract for additional analysis but in a manner that protects business-sensitive information. There are a number of analytical tools that could be brought to bear, but so far, independent analysis is limited to a small subset of data that is made publicly available. As John Anderson, one of our chapter authors, recently quipped:

> *Why do we keep studying the moon through binoculars when we have the Hubble Space Telescope sitting right there?*

In the meantime, we would urge extreme caution in making changes to a system that has grown organically over time to reward high-quality beef production in a way that acknowledges regional differences throughout the country.

Finally, a housekeeping note: this book is admittedly very technical and assumes a working knowledge of the industry. Where possible, we've tried to define terms, but we undoubtedly missed some. Further, many of these chapters are looking at varying angles on a common issue – principally, fed cattle pricing. Consequently, there is overlap between various chapters. Rather than forcing the reader to constantly refer to earlier chapters (for similar charts and definitions in particular), they are left in place throughout the book.

Key Findings from AFPC's Evaluation of Cattle Markets

General

1. The beef cattle industry is one of the most – if not the most – complicated markets in agriculture, and stakeholders throughout the supply chain have a number of varied viewpoints.

2. Our capacity to answer questions is limited to the data that is collected, the timeframe over which it is collected, and the extent to which it is made publicly available.

Concentration

3. While not the central focus of the study, one can't discuss fed cattle pricing and capacity without acknowledging concerns over packer concentration. However, with respect to fed cattle pricing, research shows that alternative marketing arrangements (AMAs) do not create market power, because they do not change underlying supply and demand fundamentals.

4. While not necessarily a popular position, most economic research confirms that the benefits to cattle producers due to economies of size in packing largely offset the costs associated with any market power exerted by packers. Research indicates that there is market power, but its effect has been small.

Fed Cattle Pricing

5. Innovation via AMAs originated with feeders who were attempting to capture value associated with improved quality. There has been tremendous variability in the adoption of AMAs, with the Texas-Oklahoma-New Mexico region by far being the largest users of AMAs.

6. Reliance on formula pricing significantly reduced transaction costs associated with negotiation and induced predictability in the supply chain.

7. Among the cattle market economists consulted, there was general agreement that price discovery in fed cattle markets is still robust despite the fact that less than 30% of the transactions are negotiated (or cash).

Key Findings from AFPC's Evaluation of Cattle Markets

8. While some argue that imposing mandatory minimums on negotiated (or cash) transactions would improve price discovery in the fed cattle markets – accruing benefits to the cow/calf producer in the process – authors in this book argue it could have the opposite effect, potentially imposing huge costs that are passed down to cattle producers in the form of lower prices.

9. While the costs associated with imposing mandatory minimums could be huge, that is predicated on the statute being drafted in a way that is enforceable by USDA. The transaction types are so loosely defined that satisfying a mandate may simply be done by reporting a different transaction type – for example, even if the transaction was formula based, a buyer could make a phone call and subsequently report it as a "negotiation." The rules of what constitutes a negotiation would have to be carefully defined for mandatory minimums to have the intended effect.

10. While the economists consulted argued that fed cattle price discovery was still robust, they also noted that additional transparency in general would be good because it could help build confidence in the market. They also noted that a contract library could be a good option (or at least wouldn't hurt).

Capacity

11. The experts consulted in this study repeatedly stressed the cyclical nature of the cattle business. While cattle supplies have outpaced available packing capacity, that will not always be the case. As a result, anyone who decides to build additional capacity must understand those market dynamics and be aware that packer margins can plummet with that cycle. The decline in packing capacity has occurred over several decades; it is not just a recent event.

12. As a result, expansion of small and regional packing capacity needs to be done in a way that is sustainable and economically viable. While the program is still being implemented, the funding recently made available by the Biden Administration may help meet that demand for additional capacity.

Contributers

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Christopher T. Bastian is a Professor in the Department of Agricultural and Applied Economics at the University of Wyoming. His research has largely focused on market issues, production management, and natural resource concerns affecting agricultural producers, particularly related to livestock. Christopher received his PhD in Agricultural and Resource Economics from Colorado State University and his BS and MS from the University of Wyoming.

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Stephen R. Koontz is a Professor in the Department of Agricultural and Resource Economics at Colorado State University. He has recently worked on a variety of market assessments regarding the thinning cash trade in fed cattle and beef. Stephen has a BS and MS in Agricultural Economics from Virginia Polytechnic Institute and State University and a PhD in Agricultural Economics from the University of Illinois.

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Andrew M. McKenzie is a Professor and Associate Director of the Fryar Price Risk Management Center of Excellence in the Department of Agricultural Economics and Agribusiness at the University of Arkansas. His research interests include the role of transportation in grain marketing, price risk management strategies in poultry and grain markets, food safety issues, and the informational role played by financial and commodity markets in transmitting price signals. Andrew received his BA in Administrative Studies from the University of Dundee, his MS in Investment Analysis from Stirling University, and his PhD in Economics from North Carolina State University.

James L. Mitchell is an Assistant Professor in the Department of Agricultural Economics and Agribusiness at the University of Arkansas and an Extension Livestock Economist with the University of Arkansas System Division of Agriculture. He leads integrated extension and research programs that address issues that span the livestock and meat supply chain. James has BS and MS degrees from Oklahoma State University and a PhD in Agricultural Economics from Kansas State University.

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Acknowledgments

Bart L. Fischer and Joe L. Outlaw

This book is the product of a partnership between the Agricultural and Food Policy Center (AFPC) at Texas A&M University and the Office of the Chief Economist at the United States Department of Agriculture (USDA-OCE). The work originated from a request by the bipartisan leadership of the Committee on Agriculture in the U.S. House of Representatives during the 116th Congress.

The project was partly funded via a cooperative agreement with USDA-OCE. Seth Meyer, Chief Economist, and Callie McAdams, Senior Economist, managed the project within USDA. We thank them both for their support and insightful comments throughout the project. We also thank the bipartisan staff on the House Agriculture Committee for their help and feedback throughout the project.

The core of this project is a series of papers commissioned from experts across the country. The authors were exceptionally diligent in meeting very stringent deadlines and in presenting the results of their work at a workshop in Kansas City, MO, on June 3-4, 2021. They were joined by four discussants who offered a diversity of perspectives at the workshop, as did many others who simply came to attend. This topic attracts a lot of interest and a variety of opinions, and that was on full display at the workshop.

Finally, this book would not be possible were it not for the exceptional team at AFPC that is frequently called on to analyze a wide array of policy issues related to agriculture. Brian Herbst coordinated the project within AFPC. David Ernstes served as technical editor for the book and formatted the final product. Sandra Norman managed conference registration and travel. Allison Wilton provided an initial review of each chapter. Finally, this was an all-hands-on deck project, with each member of our team playing a role in making sure the project was successfully completed on time.

Chapter 1

How We Got Here: A Historical Perspective on Cattle and Beef Markets

Derrell S. Peel

Introduction

> *"The beef cattle industry is caught up in difficult times.*
>
> *As economic pressures intensify, reactions tend to move away from the objective and toward the emotional. Calls for solutions are becoming more strident and many are taking the form of proposed legislative remedies. Increased regulation of how buyers and sellers do business, legislative or world court actions to stop imports of live cattle, laws to mandate the reporting of price information and terms of trade, country of origin labeling, and a host of other "solutions" to low prices and to producer-level losses are being proposed.*
>
> *There is a danger in all this, and the biggest danger is not in the long history of, at best, mixed results in efforts by the government to legislate solutions to economic problems. The big danger is that all the attention on short-run and highly visible issues will block recognition of the problems that are long run and structural in nature and, in the process, prevent efforts to move to programs and policies that have a legitimate chance of helping."*

The quote above is an apt assessment of the current situation in the U.S. cattle and beef industry. However, the passage is not new; it was written by Dr. Wayne Purcell in 1999 (Purcell, 1999). The issues facing the beef cattle industry today are not new; indeed, they have changed little in the past 30 years, and some have roots that extend back over a century. It is perhaps reassuring that the industry has, for the most part, avoided embarking on policies targeting issues "that are more nearly peripheral in nature and often deal with the symptoms of economic problems rather that the causes" (Purcell, 1999). Mandatory Country of Origin

Labeling (mCOOL) is a notable exception to that, but the United States did back away from the detrimental policy. However, like many other issues, mCOOL has not gone away. Indeed, the emotions, anger and frustration accompanying recent events such as the Holcomb packing plant fire in 2019, the ongoing COVID-19 pandemic beginning in 2020, and the winter storm of February 2021 have fueled demands for an array of potential legislative actions that attempt to jump to a solution without addressing the complex structural and behavioral issues that brought the industry to the current situation. The risk is that these overly simplistic solutions will have long term detrimental impacts on cattle producers, the industry, and consumers, and jeopardize the ability of the industry to compete in dynamic global protein markets for a successful future.

The issues facing the beef cattle industry today are not new; indeed, they have changed little in the past 30 years, and some have roots that extend back over a century.

The risk is that these overly simplistic solutions will have long term detrimental impacts on cattle producers, the industry, and consumers, and jeopardize the ability of the industry to compete in dynamic global protein markets for a successful future.

The more pressing need, as identified by Dr. Purcell, is to understand and address issues "that would help the long run and structural issues that are prompting the price pressures" (Purcell, 1999). There is critical need to understand why the industry has evolved to have the structure that exists today and to function the way that it does. Individual firms and producers respond to the economic incentives that influence their actions. Collectively, these actions sometimes produce an industry structure and market outcomes that may not be desirable, in some respects, to the broader industry. If the industry desires to change or modify those outcomes, it is imperative that proposed solutions carefully evaluate new or changed incentives and the likelihood that desired outcomes are feasible or sustainable and, most critically, to understand potential unintended consequences and undesirable outcomes that may accompany proposed solutions.

The objective of this chapter is to provide a brief history of the beef cattle industry and a historical perspective on structural changes and the evolution of industry characteristics and practices that determine the current structure and status of the industry. Profound changes in the beef cattle industry began in the 1960s and 1970s with the introduction of boxed beef technology fundamentally changing beef merchandising, the arrival of European continental genetics, and the development of commercial cattle feeding in the Plains. Arguably the most profound changes occurred in the 1980s and 1990s with dramatic increases in packer concentration, growth in cattle feeding, increased beef grading and dramatic changes in beef marketing, development of value-based cattle marketing, growth in international beef and cattle trade, and growing captive supply con-

cerns. The 2000 to 2010 period saw recovery in beef demand from the late 1990s low, increasing use of alternative fed cattle marketing arrangements, dramatic growth in the ethanol industry leading to profound changes in crop agriculture and feed markets, and more development of branded and specialized beef markets. The period from 2010 to today has been characterized by several events – a historic drought in 2011 to 2013 resulting in unprecedented cattle prices in 2014 to 2015, reductions in packing capacity, the first significant cyclical expansion in cattle numbers in 25 years, unprecedented growth and expansion in global beef trade, and most recently, a barrage of black swan events since 2019 dominated by the COVID-19 pandemic.

The Most Complex Set of Markets Anywhere

It is reasonable to ask why the beef cattle industry should be plagued with so many contentious issues that have persisted for so long. Much of the reason is attributable to the fact that the U.S. cattle and beef industry may well be the most complex set of markets in existence. In its entirety, the cattle and beef industry represents an extraordinarily complicated set of cattle production and marketing activities which provide the source of a massive set of beef products marketed through a diverse set of final markets and all coordinated by a multitude of interrelated market transactions.

No single graphic can represent the tremendous complexity of the beef cattle industry, but Figure 1.1 provides a representation of some of the many factors

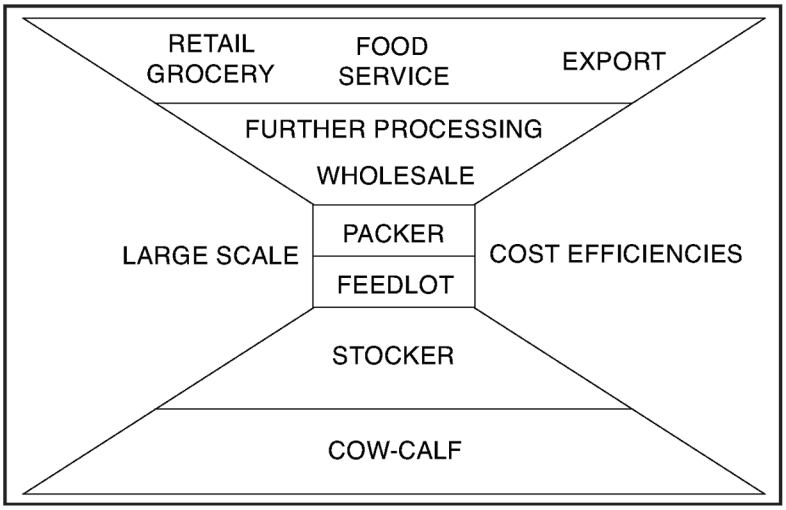


Figure 1.1. Beef Industry Structure.

that comprise the cattle and beef industry. Figure 1.1 shows that cattle originate in a dispersed and diverse cow-calf production sector, which are assembled and aggregated through multiple production and marketing activities before being marketed from a relatively concentrated feedlot sector into a highly concentrated packing sector. Many beef products originating from beef packers are transformed into thousands of different beef products by further processors and food distributors before being marketed through a diverse set of supply chains that support retail grocery, food service and export markets. The list of factors that contribute to the vast complexity of the cattle and beef industry includes:

It is reasonable to ask why the beef cattle industry should be plagued with so many contentious issues that have persisted for so long. Much of the reason is attributable to the fact that the U.S. cattle and beef industry may well be the most complex set of markets in existence.

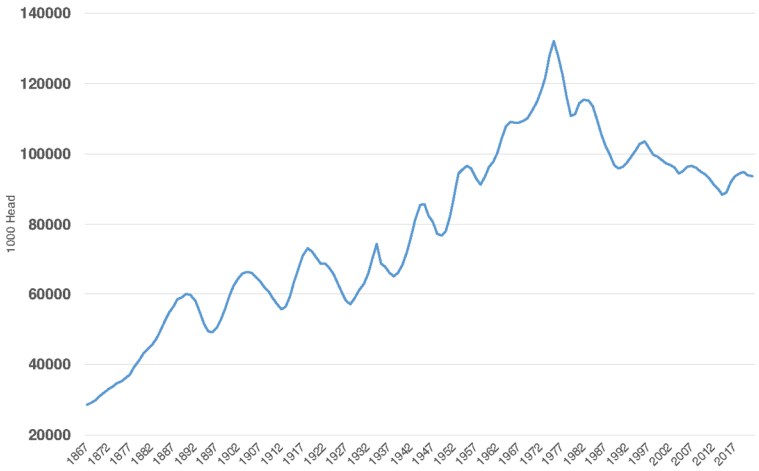
- Multiple distinct and separate production sectors (cow-calf, stocker, and feedlot),
- Geographically dispersed primary production with many small producers,
- Tendency for multi-year cycles of production/prices,
- Ruminant biology impacts, such as,
    - Long production lags,
    - Single offspring/interaction between breeding and production, and
    - Ability to use a wide variety of feed resources,
- Interaction between production and marketing due to
    - Variable production systems,
- Seasonality of the many production and product markets,
- Assembly of animals regionally into larger marketing groups,
- Joint production/disassembly of carcasses into a vast array of products,
- Product perishability,
- Multiple product marketing sectors,
- Many diverse final markets, and
- Dairy sector interaction with beef industry.

The complicated industry described above and illustrated in Figure 1.1 involve many different economic decision-makers and these factors all contribute to an intricate set of markets over time and space needed to provide a steady flow of perishable products. The difficulty for market participants at all levels to recognize and appreciate the enormous complexity of this massive set of markets and relationships is understandable.

A Brief Early History of the North American Cattle Industry

Christopher Columbus brought cattle to the New World on his second voyage in 1493. In 1521, Hernán Cortés brought cattle to present day Mexico. The same year, Ponce de León brought cattle to present day Florida, though it likely was subsequent introductions that established cattle in the southeast United States. Cattle proliferated in central Mexico and moved north in the 16th century following the mining industry. By the early 17th century, cattle reached the Rio Grande and moved into present-day Texas, brought by the Spanish missions established in the region. Through the 17th and 18th centuries, Spanish cattle, escaped from or released by the missions and perhaps reflecting a touch of oxen breeding, became established and evolved into the iconic Texas Longhorn, running wild over a huge territory in present-day Texas.

The cattle industry that we recognize today really began in the post-Civil War period as returning soldiers established or reclaimed ranches abandoned before the war. Burgeoning beef demand in population centers in the eastern United States led to the roundup of millions of Longhorn cattle and resulted in the signature cattle drives in the late 19th century. It was also during this period that one of the most salient characteristics of the cattle industry emerged…the cattle cycle. Figure 1.2 shows the inventory of cattle and calves since 1867 and the pronounced tendency of the industry to experience multi-year cycles of inventory expansion



Source: USDA-NASS, compiled by LMIC.

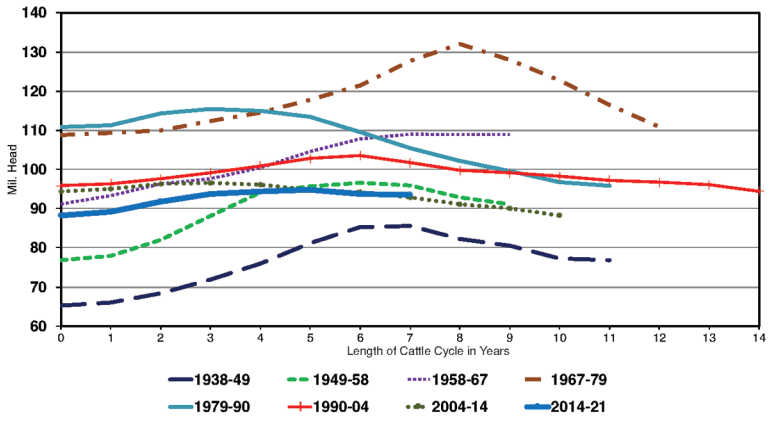
Figure 1.2. All Cattle and Calves, 1867 - 2021.

and liquidation. The cyclical tendency has persisted regardless of whether the industry was trending higher or lower in overall inventory and is still a characteristic feature of the industry today.

The era of open range and cattle drives was short lived as barbed wire fenced the range and westward expansion of railroads increased access to railheads. By the late 19th century, major stockyards developed next to packing companies in Chicago, Omaha, Kansas City, Fort Worth, and Oklahoma City. Cattle shipped to these terminal markets, mostly by rail, were traded by private treaty through stockyard commission companies. As the trucking industry developed, the influence of the railroads declined, and the role of the central stockyards declined. In the 1950s, packing companies began to relocate closer to cattle feeding and the large urban stockyards like Chicago, Kansas City, and Fort Worth declined and ultimately closed. Some of these terminal markets converted to auctions and continued as feeder cattle markets. The Oklahoma City stockyards, for example, changed to the auction format in 1961 and still conducts all sales through commission companies, a remnant of the terminal market structure. The St. Joseph stockyards recently announced that the auction would close in May 2021 after 134 years in business as stockyards and later an auction.

Inventory Trends and Cattle Cycles

Figure 1.2 highlights the long-term trends in the cattle industry. Cattle numbers grew, with cyclical variation, in a steady trend upwards to a sharp peak of 132 million head in 1975. After the peak, cattle numbers declined, with continued



Source: USDA-NASS, compiled by LMIC.

Figure 1.3. Total Cattle Inventory by Cycle, United States, January 1.

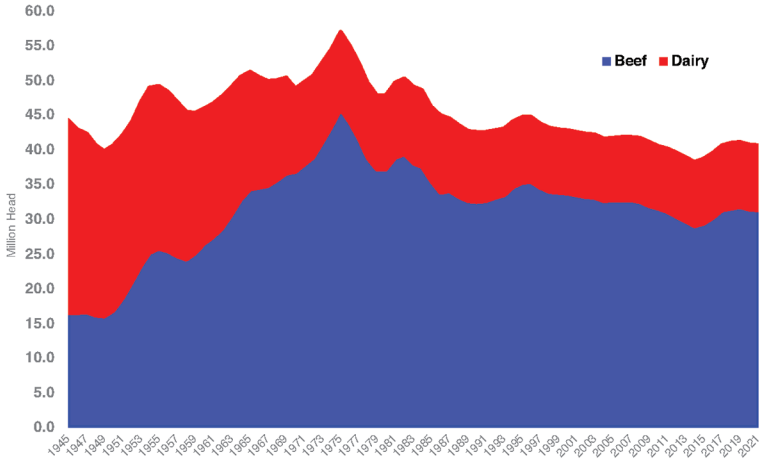
Table 1.1. Beef Cow Inventory, Top 15 States and United States, 1950, 1975 and 2021.

	1950		1975		2021			
Rank	State	1,000 Head	State	1,000 Head	State	1,000 Head	Percent of 1950	Percent of 1975
1	TX	3,302	TX	6,895	TX	4,685	141.9	67.9
2	NE	1,051	MO	2,759	OK	2,189	285.4	80.7
3	KS	928	OK	2,713	MO	2,035	342.6	73.8
4	SD	810	NE	2,374	NE	1,900	180.8	80.0
5	OK	767	SD	2,116	SD	1,799	222.1	85.0
6	MT	754	KS	1,978	KS	1,477	159.2	74.7
7	CA	622	IA	1,835	MT	1,419	188.2	83.9
8	NM	619	MT	1,692	KY	983	525.7	68.8
9	CO	615	FL	1,468	ND	975	293.7	78.5
10	MO	594	MS	1,458	FL	929	166.8	63.3
11	IA	588	KY	1,429	AR	925	451.2	73.5
12	FL	557	TN	1,349	TN	900	491.8	66.7
13	LA	475	AR	1,259	IA	890	151.4	48.5
14	WY	431	ND	1,242	WY	702	162.9	87.1
15	AZ	393	AL	1,238	AL	697	224.8	56.3
U.S.	---	16,743	---	45,712	---	31,158	186.1	68.2

cyclical variation, to under 110 million head a decade later in 1985, then to less than 103 million head by 1995; By 2005, cattle numbered 95 million head. In the past 10 years, all cattle and calves' inventory has averaged 92.1 million head, ranging from a recent low of 88.2 million head in 2014 to a recent cyclical peak of 94.8 million head in 2019. The January 1, 2021, inventory total was 93.6 million head. The inventory cycles apparent in Figure 1.2, when plotted from low to low as repeating patterns in Figure 1.3, give rise to the so-called "Ten Year Cattle Cycle." In spite of this title, the figure shows that the last seven complete cycles have ranged from 9 years to 14 years, with only one cycle (2004 to 2014) being exactly ten years in length.

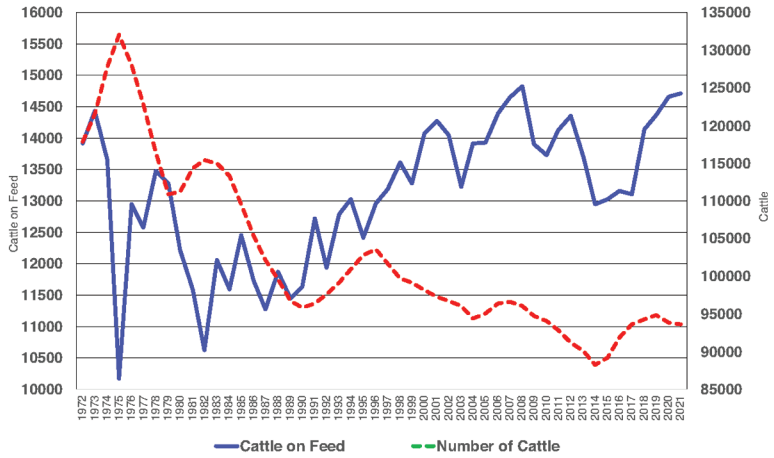
The U.S. cow herd, consisting of beef and dairy cows, is the source of calf production and thus the ultimate supply of cattle for the beef industry. Figure 1.4 shows the inventories of beef and dairy cows since 1945 and the changing roles of the two cattle sectors over time. Beef cows made up just 37 percent of the total cow numbers in 1945. Beef cow numbers grew rapidly and by the peak in 1975, beef cows represented a peak level of just over 80 percent of all cows. Beef cows have represented roughly 77 percent of the total cow inventory for the past 40 years with a recent low of 75.9 percent in 2014. On January 1, 2021, beef cows represented 76.7 percent of all cows.

Table 1.1 shows the fifteen largest beef cow states at various points in time and regional changes in cow-calf production over time. In 1950, the beef cattle industry was concentrated even more in the West than today. For example, Califor-



Source: USDA-NASS, compiled by LMIC.

Figure 1.4. United States Cow Inventory, 1945 - 2021.



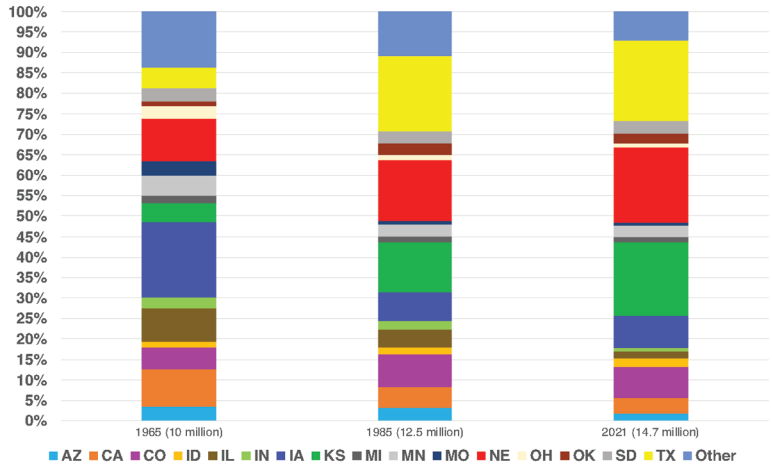
Source: USDA-NASS, compiled by LMIC.

Figure 1.5. Cattle on Feed and All Cattle and Calves Inventory, 1,000 head, January 1.

nia, Colorado, New Mexico, and Arizona were all in the top fifteen states in 1950, but fail to make the list currently. Table 1.1 shows that some states increased faster from 1950 to 1975, with some states having declined more from peak 1975 levels. Several states increased proportionately more than others over time. Most dramatic are the increases in beef cows since 1950 in Kentucky, Tennessee, and Arkansas, none of which made the list in 1950. North Dakota made the top fifteen by 1975 and increased to number nine currently. Several traditionally large beef cow states increased in rank from 1950 including Oklahoma and Missouri, while others remained highly ranked including Florida, Kansas, Montana, Nebraska and South Dakota. Iowa increased in rank from 1950 to 1975 then dropped significantly to 2021, at only 48.5 percent of the 1975 level.

Dairy Sector Impacts

The dairy industry operates under economic forces that drive milk production. While these are quite separate from the beef industry, the animals used in dairy production ultimately become part of the beef supply. Slaughtered animals include male dairy calves, culled dairy replacement heifers, and culled dairy cows. The dairy sector is generally more stable and not, for example, subject to the cyclical variation typical of the beef cattle industry. However, normal dairy industry dynamics can sometimes serve to compound and exaggerate beef industry dynamics and at other times offset and mute beef industry dynamics. On occasion,



Source: USDA-NASS, compiled by LMIC.

Figure 1.6. Cattle on Feed Share, Selected States, 1,000 head, January 1.

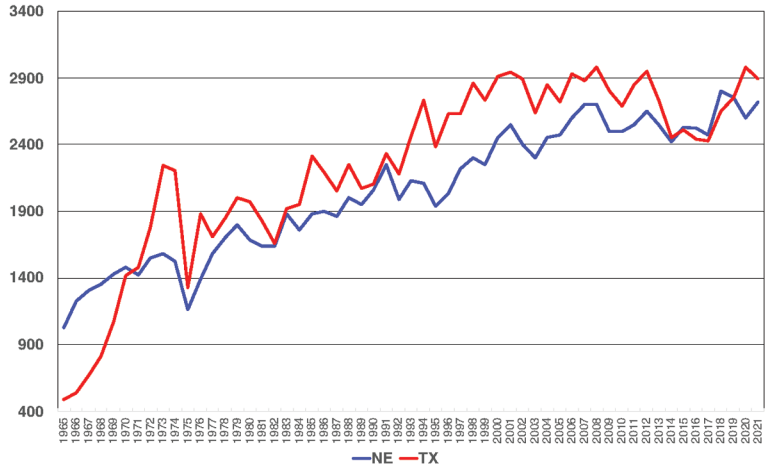
the dairy industry has been the source of dramatic shocks to cattle markets, most notably the infamous (from a beef perspective) dairy herd buyout in 1986. On average, the dairy sector contributes 15 to 20 percent of total beef supplies.

Dairy animals are discounted for their poorer productivity (gains, feed efficiency, etc.) as well as carcass yield and muscle conformation. Dairy steers are typically placed on feed at light weights and fed in feedlots for roughly a year. Because dairy genetics are very uniform, dairy steers finish very predictably and consistently produce high levels of Choice and Prime carcasses.

The previously described dairy production practices are changing rapidly at the current time. The availability of sexed semen is allowing the dairy industry to focus artificial insemination on the highest quality cows for producing replacement heifers while breeding the remaining cows (sometimes using semen sexed for male animals) to beef breeds to produce beef-dairy crossbred calves that will perform and be valued more closely to beef calves. The sharp distinction between beef and dairy calves in beef production will become much more blurry in the coming years.

Cattle Feeding

Cattle feeding developed rapidly in the post-World-War II period in the Corn Belt as farmer-feeders used cattle and hog feeding to market corn production. During this period, interest in carcass grading increased as consumer preferences for mar-

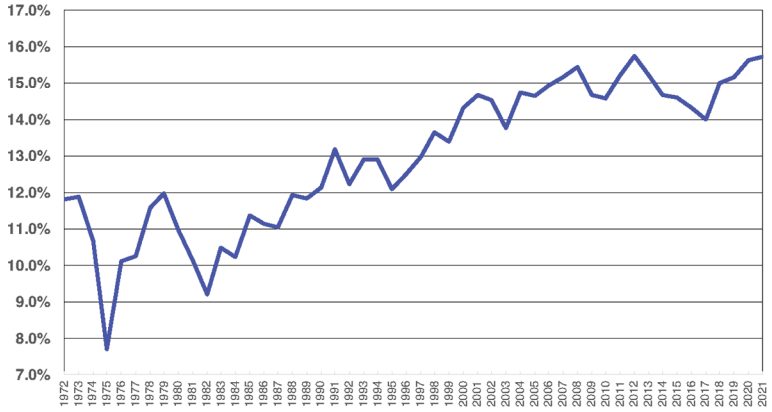


Source: USDA-NASS, compiled by LMIC.

Figure 1.7. Cattle on Feed Inventory, 1,000 head, January 1.

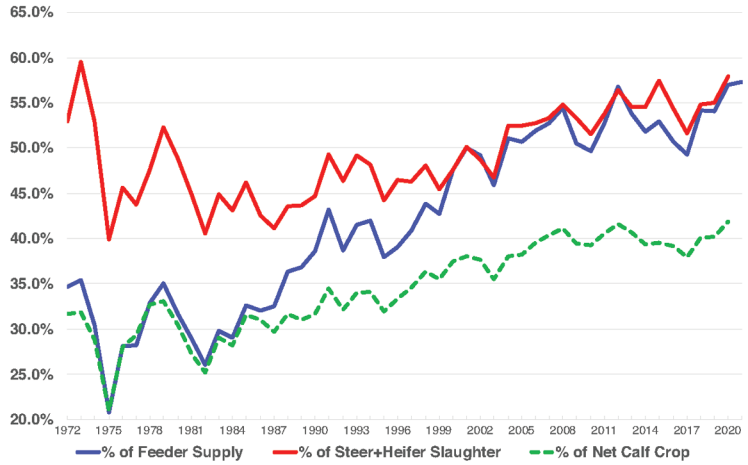
bled beef developed. After limited beginnings in the 1950s, large commercial feedlots developed in the Plains in the 1960s and cattle feeding expanded rapidly. The feedlot inventory was just under 10 million head in 1965, increased to 12.5 million head in 1985, and was 14.7 million head in 2021 (Figure 1.5). Figure 1.6 shows the shares of cattle on feed total by state and changes at these three points in time. The decrease in Midwest cattle feeding, including Iowa, Illinois, Indiana, and Ohio, is apparent in Figure 1.6. Just as obvious is the increase in cattle feeding in Texas, Kansas, Colorado, and additional growth in Nebraska. Cattle feeding in the Plains increased rapidly in the 1960s and early 70s with the development of irrigated crop agriculture that increased feedgrain supplies in the region and the use of steam flaked corn, which reduced the feed cost disadvantage of the plains compared to the Midwest. A smaller feed cost disadvantage combined with weather advantages to make the Plains region competitive with the Midwest. Figure 1.7 shows annual cattle on feed inventories for Texas and Nebraska (the two largest cattle feeding states since 1977). The figure shows the rapid rise of cattle on feed in Texas in the late 1960s, passing Nebraska in 1971. January 1 feedlot inventories in Texas exceeded Nebraska from 1971 to 2015.

Figure 1.5 shows that feedlot production has generally increased since the 1980s. This is despite declining cattle numbers, also shown in Figure 1.5. Figure 1.8 confirms that cattle on feed inventories have increased as a percent of total cattle inventories over the past 40+ years. Figure 1.9 shows cattle on feed inventories as a percent of calf crop, as a percent of estimated feeder supply, and as a percent of total steer and heifer slaughter, all of which have trended up since the



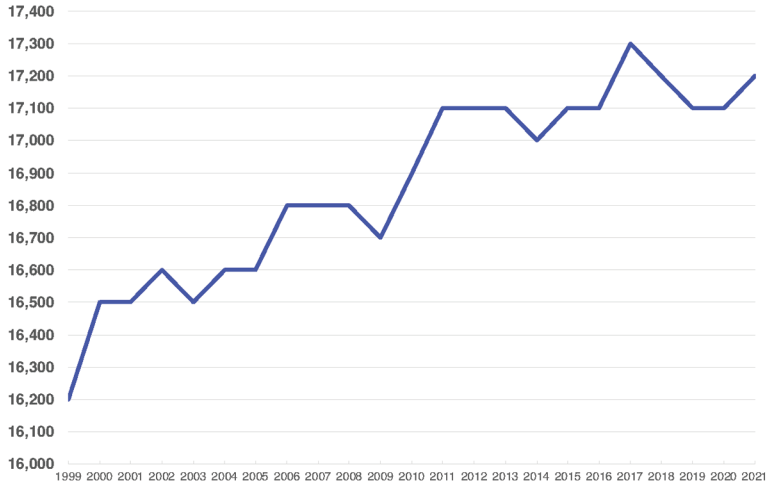
Source: Calculations by Peel from USDA-NASS data.

Figure 1.8. Cattle on Feed Inventory as Percent of All Cattle and Calves, January 1.



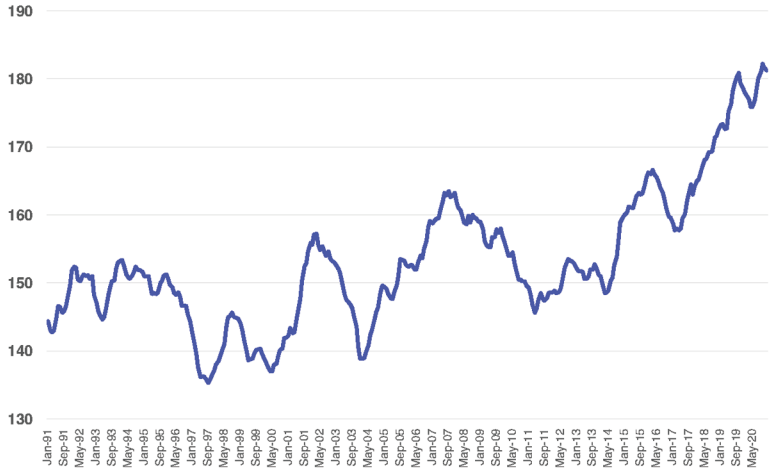
Source: Calculations by Peel from USDA-NASS data.

Figure 1.9. Cattle on Feed Inventory Increasing Relative to Industry, January 1.



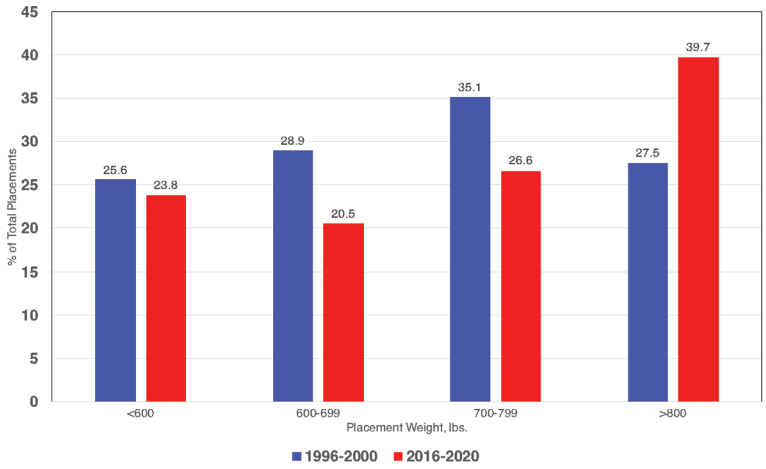
Source: USDA-NASS, compiled by LMIC.

Figure 1.10. Feedlot Capacity, January 1, 1,000 head, 1999 - 2021.



Source: Focus on Feedlots, compiled by LMIC.

Figure 1.11. Days on Feed, 12 month moving average, Kansas Focus on Feedlots.



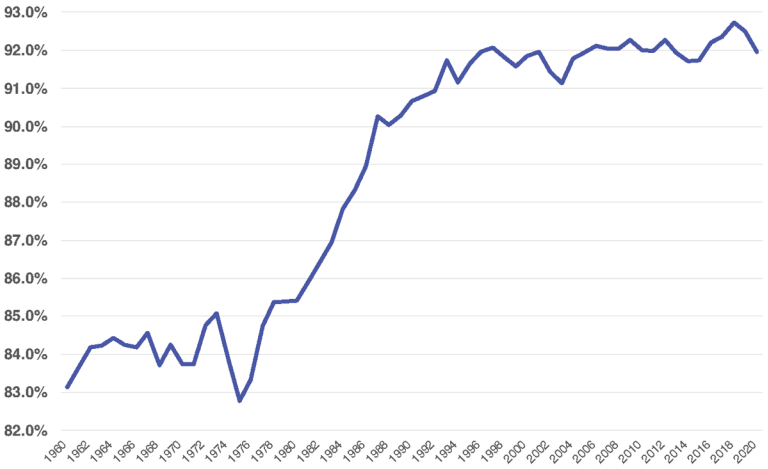
Source: Calculations by Peel from USDA-NASS data.

Figure 1.12. Distribution of Feedlot Placements by Weight.

1980s. Figure 1.10 shows that total feedlot capacity, as reported by USDA, has increased by roughly a million head in the past 20 years. Feedlots have been able to maintain inventories despite declining cattle numbers by reducing the turnover rate, i.e. by increasing days on feed (Figure 1.11). This results from feeding cattle to bigger weights and by feeding significant numbers of lightweight placements, which need additional days on feed. Figure 1.12 shows that feedlot placements have shifted in the past twenty years to include a larger percentage of heavy weight placements while maintaining the percentage of lightweight placements and reducing the proportions of traditional placements from 600 to 800 pounds. This has resulted in a more bimodal placement distribution in recent years.

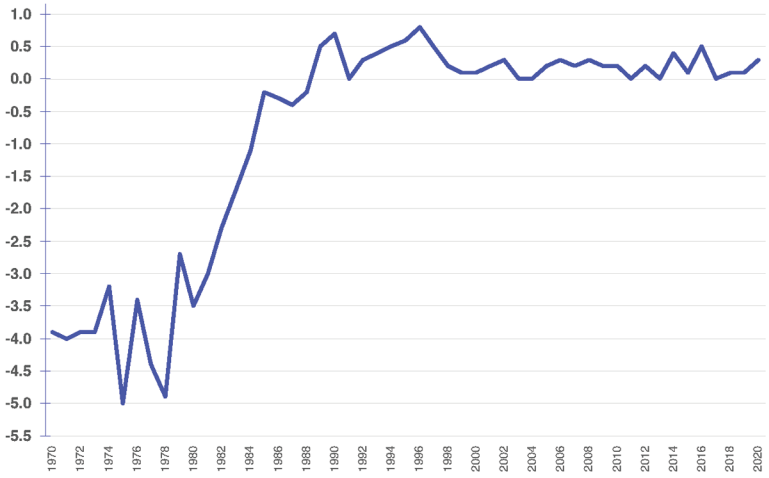
Heifer Feeding

Beginning about 1980, heifer feeding received much more attention and improved rapidly and dramatically. Prior to that time, heifer feeding was treated as a residual – necessary, but not worthy of much management. Figure 1.13 shows that prior to about 1980, heifer carcass weights averaged about 15 percent less than steer carcass weights. In a matter of about a decade, heifer carcass weights increased relative to steers and have averaged 91 to 92 percent of steer carcass weights for the past 30 years. At the same time, the fed heifer price improved from a roughly four percent discount to fed steer prices to a par level with fed steer prices (Figure 1.14). Of course, there are productivity differences in heifer gains and feed efficiency that are still reflected in the typical discount of feeder heifer to feeder steer prices.



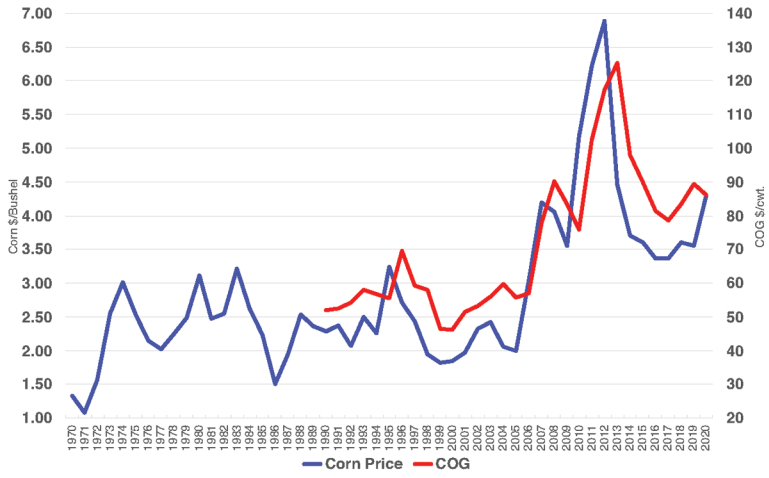
Source: Calculations by Peel from USDA-NASS data.

Figure 1.13. Heifer Carcass Weight as Percent of Steer Carcass Weight, 1960 - 2020.



Source: Calculations by Peel from USDA-NASS data.

Figure 1.14. Percent Difference in Fed Heifer and Fed Steer Live Price, 1970 - 2020.



Source: USDA-NASS and Focus on Feedlots, compiled by LMIC.

Figure 1.15. Corn Price and Feedlot Steer Cost of Gain (COG), 1970 - 2020.

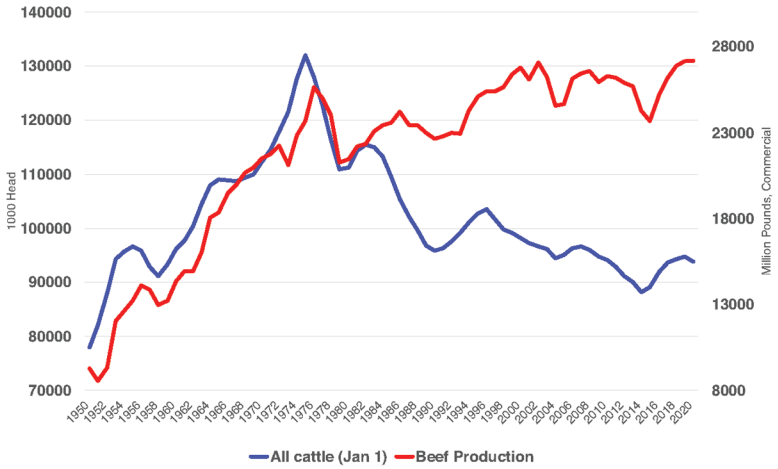
Ethanol Impacts

A fundamental change in cattle feeding occurred with the rapid expansion of the ethanol industry in 2006 to 2007. Corn used for food, seed and industrial purposes increased from an average of 2.4 billion bushels annually from 1997 to 2006 to an annual average of 6.2 billion bushels since 2007. National average corn prices averaged $2.27/bushel from 1970 to 2005 and have averaged $4.20/bushel in the period from 2006 to 2019 (Figure 1.15). Increased corn prices are reflected in higher feedlot cost of gain. Figure 1.15 shows how feedlot cost of gain (COG) has increased similarly to the increase in corn prices. Ethanol production is heavily concentrated in the Corn Belt and the availability of distiller's grain feeds favors feed costs in the Corn Belt compared to the Plains. This was especially true in the initial years of the ethanol mandate. Economists predicted that the change in crop demand and use would have regional implications for cattle production with the competitive advantage shifting back to the Midwest (Peel, 2007). Figure 1.7 shows that the gap between Texas and Nebraska cattle on feed inventories began to narrow after 2006 and by 2015, the combination of cost disadvantages and limited cattle supplies allowed Nebraska on-feed inventories to equal or exceed Texas from 2015 to 2019. In 2020 to 2021, increased cattle numbers and more time for market adjustments have allowed Texas to again regain the inventory advantage. However, a relative change in regional competitiveness remains.

The dramatic change in crop production due to ethanol production had other implications for cattle markets as well. Ethanol demand boosted corn acreage significantly. From 1997 to 2006, average annual corn planted acreage was 79.1 million acres which increased to 91.1 million acres from 2007 to 2016. Because of price relationships between corn and soybeans – and the fact that the two crops are often grown in fixed rotations – soybean acreage also increased after 2006. The increased crop acreage came from many places, but in the heart of the Corn Belt, more corn and soybeans meant less pasture. Total pastureland in Illinois, Indiana and Iowa decreased by 1.4 million acres, nearly 25 percent, between the 2007 and 2017 Census of Agriculture (USDA-NASS, 2009 and 2019). The number of beef cows in those three states also declined. The combined 5-year average inventory of beef cows in Illinois, Indiana, and Iowa decreased by 11.8 percent, nearly 200,000 head. This explains part of the decrease in Iowa's rank among major beef cattle states (Table 1.1).

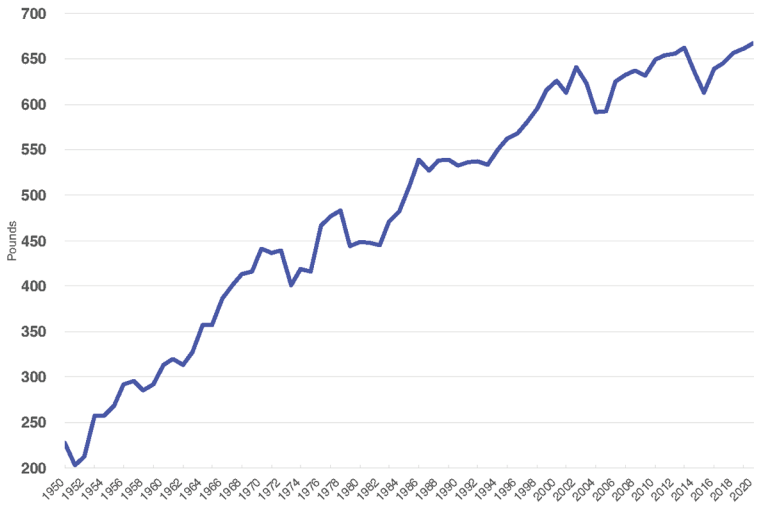
Beef Production

Following the peak cattle numbers in the mid-1970s, increased productivity in the beef industry helped maintain the level of beef production despite falling cattle numbers. Several factors contribute to this. In the short run, beef production and inventory adjustments are correlated. Thus, during liquidation phases of the cattle cycle, beef production increases as animals are removed from the breeding herd. In short, the industry must make beef production larger before it can get smaller.



Source: USDA-NASS, compiled by LMIC.

Figure 1.16. All Cattle and Calves Inventory and Annual Beef Production, 1950 - 2020.



Source: Calculations by Peel from USDA-NASS data.

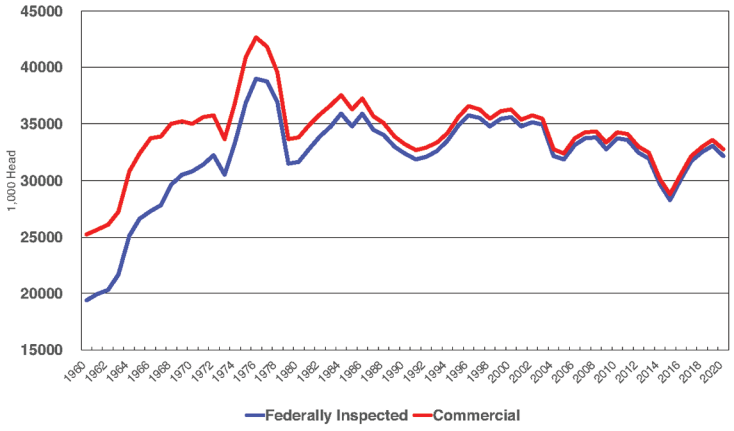
Figure 1.17. Beef Production per Cow, 1950 - 2020.

(Conversely, attempts to increase beef production require making a tight beef supply even tighter initially to save more females for breeding and invest in future production.) The inventory adjustments to beef production are temporary. Eventually, an ever-decreasing cattle inventory must necessarily lead to decreasing beef production.

Figure 1.16 shows the relative change in beef production relative to cattle numbers since 1950. Beef production increased as cattle numbers increased until 1975 and has increased more slowly since then. It could be said that beef production has continued to grow despite the decrease in cattle numbers since 1975. It could also be said that increasing productivity since 1975 is the reason for declining cattle numbers since 1975. Beef production per cow is a broad aggregate measure of industry productivity that includes the inventory adjustments discussed previously, but also numerous other increases in productivity including larger carcass weights (discussed below), other improvements in management, and production efficiency. Figure 1.17 shows that beef production per cow has generally increased since 1950 from less than 250 pounds per cow to over 660 pounds per cow currently.

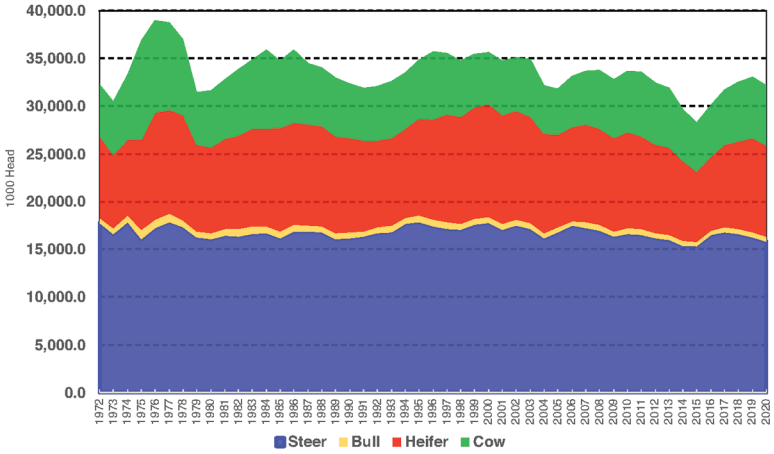
Cattle Slaughter

Cattle slaughter increased from 1960 as cattle numbers increased and reached a peak in 1976, one year after cattle inventories peaked and began a sharp liquidation (Figure 1.18 and Figure 1.2). Total commercial cattle slaughter in 2020 was 32.8 million head, down 23 percent from the 1976 peak of 42.7 million head. Today, the vast majority of cattle slaughter is federally inspected resulting in the



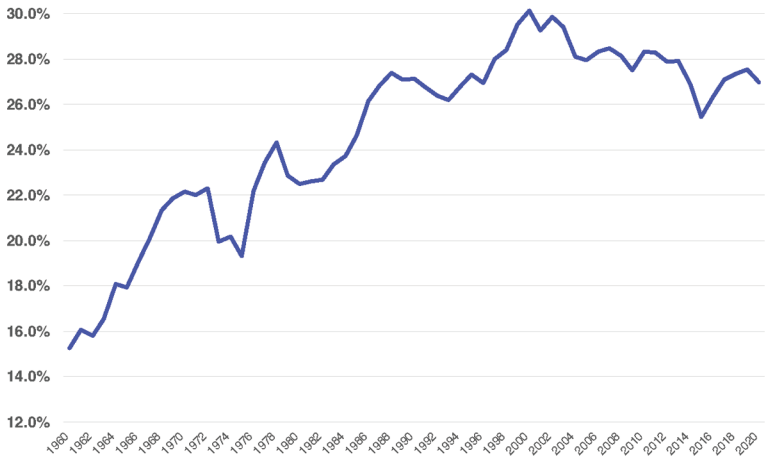
Source: USDA-NASS, compiled by LMIC.

Figure 1.18. Cattle Slaughter, 1960 - 2020.



Source: USDA-NASS, compiled by LMIC.

Figure 1.19. Cattle Slaughter, Federal Inspection, 1972 - 2020.



Source: Calculations by Peel from USDA-NASS data.

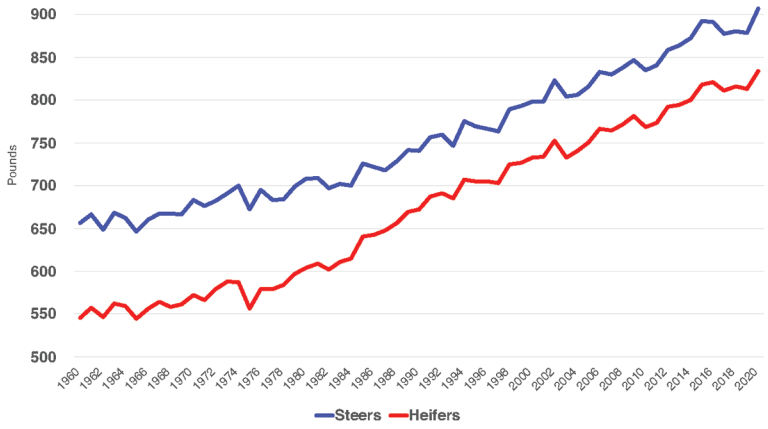
Figure 1.20. Steer and Heifer Slaughter as Percent of All Cattle and Calves, 1960 - 2020.

difference in commercial and federally inspected slaughter nearly disappearing in the past three decades (Figure 1.18). Total cattle inventories decreased 29 percent from the 1975 peak to current levels. Figure 1.19 shows the breakdown of cattle slaughter by steers, heifers, cows, and bulls and highlights that steer slaughter averages 50 percent of total cattle slaughter and is quite stable over time. Female slaughter (heifers plus cows) makes up about 48 percent of total slaughter and are 3 to 5 times more variable compared to steers. This highlights the fact that the dynamics of heifer retention and cow culling that are the core components of the cattle cycle also produce variation in heifer and cow slaughter. It is this interaction between breeding and production and the corresponding female dynamics that drive most of the variation in cattle slaughter and beef production over time. One broad measure of productivity in the cattle industry is the production of steers and heifers for slaughter. This can be thought of as the industry extraction rate and is shown in Figure 1.20. Steer plus heifer slaughter as a percent of the total cattle inventory increased from 15 percent in 1960 to a peak of 30 percent in 2000 and declined to 27 percent in 2020.

Carcass Weights

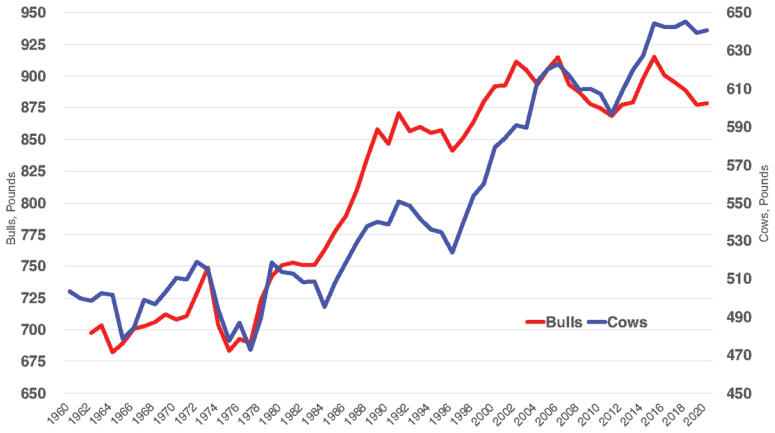
Carcass weights have increased on average since 1960. Steer carcass weights increased from 656 pounds in 1960 to 907 pounds in 2020, an average increase of 4.2 pounds per year (Figure 1.21). Heifer carcasses have increased from 546 pounds in 1960 to 834 pounds in 2020, increasing an average of 4.8 pounds per year (Figure 1.21). Increased attention to heifer feeding increased heifer carcass weight faster in the 1980s (Figure 1.13). Increased steer and heifer carcass weights are the result of genetics that have increased cattle size combined with feeding technology such as growth implants, ionophores, and beta agonists that push cattle weights. Feedlot production economics provide continued incentive for larger carcass weights, and it is not clear at what point a biological limit will be reached. However, there are moves at the cow-calf level to moderate cattle size to improve cow efficiency. Additionally, there are demand implications of larger and larger beef cuts (Maples, Lusk and Peel, 2017).

Bulls and cows are bigger as well with bull carcass weights increasing from 698 pounds in 1962 to 879 pounds in 2020, an average increase of 3.1 pounds per year (Figure 1.22). Cow carcass weights have increased from 499 pounds in 1962 to 641 pounds in 2020, increasing an average of 2.5 pounds per year (Figure 1.22). The difference in average cow size between dairy and beef cows means that the average cow carcass weight reflects the proportion of dairy and beef cows slaughtered. Separate data on beef and dairy cow slaughter has been available since 1986 and shows that beef cows have averaged 52 percent of total cow slaughter. Because of beef cow herd cyclical dynamics, the proportion of beef cows in the cow slaughter total has varied from 43 to 58 percent. The higher rate of increase of fed steer and heifer carcass weights compared to cow and bull carcass weights likely reflects the impact of the aforementioned feeding technologies. As a result,



Source: USDA-NASS, compiled by LMIC.

Figure 1.21. Steer and Heifer Carcass Weights, Average Annual, 1960 - 2020.



Source: USDA-NASS, compiled by LMIC.

Figure 1.22. Cow and Bull Carcass Weight, Annual Average, 1960 - 2020.

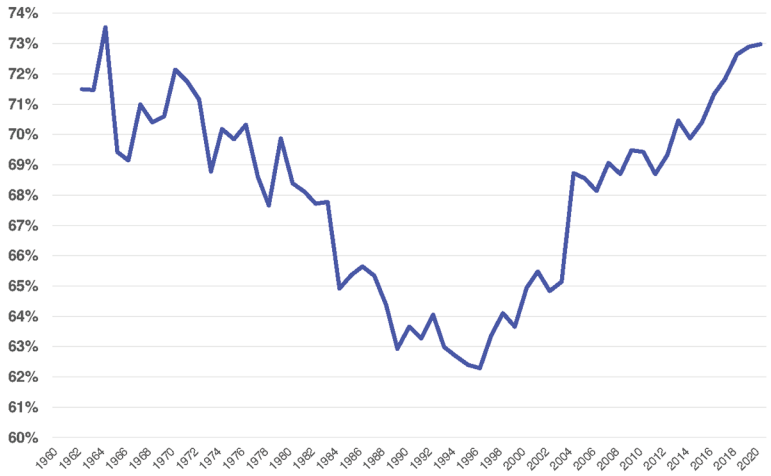
the gap between steer and bull carcass weights has been narrowing in recent years and annual average steer carcass weights in 2019 and 2020 exceeded the average bull carcass weight[1].

Bull carcass weights increased more rapidly compared to cows in the 1980s. As a result, cow carcass weights declined relative to bull carcass weights from 1960 until the mid-1990s then increased (Figure 1.23). This may reflect the adoption of continental genetics and an industry push to increase frame size that accelerated in 1970s. Bulls reflected this size increase initially, increasing relative to cows until the mid-1990s before cow size began to catch up. Cow carcasses dropped from about 71 percent of bull carcass weights in the 1960s to a low near 62 percent in 1996 before increasing to 73 percent by 2020.

Beef Fabrication

The introduction of boxed beef fabrication technology in 1967 by Iowa Beef Processors (later IBP and later still Tyson) may well be the most significant factor impacting the beef industry in the past century. Boxed beef rapidly became the dominant wholesale beef technology in the 1970s and profoundly changed

[1] The fact that steer carcass weights exceeded bull carcass weights recently is a long term structural trend that has been developing in the industry. In 1976, steer carcass weights exceeded bull carcass weights for a single year. This likely reflects industry adjustments to the spike peak in cattle numbers in 1975. The likelihood is that many young bulls were slaughtered as a result of the sharp decline in cow numbers in 1976 resulting in unusually low bull carcass weights for one year.



Source: Calculations by Peel from USDA-NASS data.

Figure 1.23. Cow Carcass Weight as Percent of Bull Carcass Weight, 1960 - 2020.

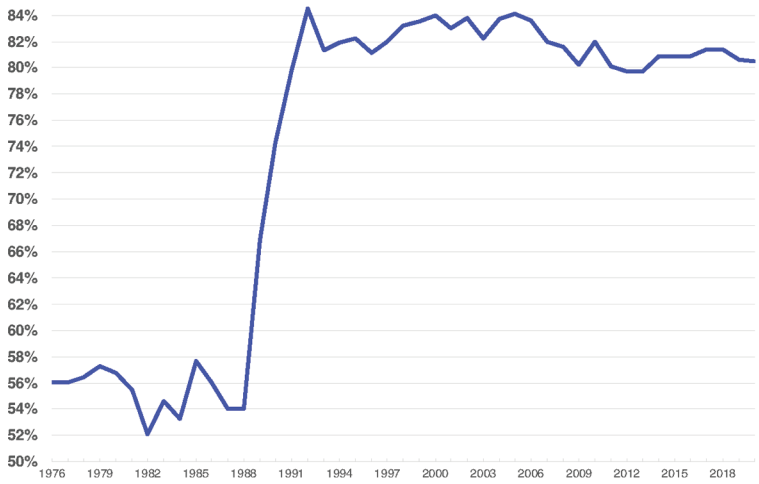
wholesale and retail beef markets because of the increased value and cost savings that accompany boxed beef. Prior to boxed beef, carcasses were shipped to retailers or further processors for final fabrication. Swinging carcasses are very inefficient to ship compared to boxes that stack and utilize refrigerated shipping capacity much more efficiently. Moreover, fabricating carcasses into primals and subprimals at the point of slaughter removes bone, fat and trim that is costly to ship. Prior to boxed beef, most grocery stores had in-store butchers that fabricated retail cuts on-site. Some larger grocery chains had centralized facilities to provide partial fabrication of carcasses prior to shipping to store butchers. Restaurants likewise either utilized in-house butchers or relied on local further processors to source beef products. Boxed beef technology facilitated significant increases in total carcass value by allowing specific beef products to be directed efficiently to specific markets to meet product demand. Beef packers integrating boxed beef fabrication into the slaughter operations represented the first of many subsequent shifts of beef product development further upstream into increasingly centralized operations.

Declining beef demand in the 1980s (discussed below) led to a series of product changes and innovations that continue today. Growing consumer preferences for "lean" beef led to early interest in grass-fed beef in the 1980s and 1990s that was not, for the most part, very successful. However, this interest led to changes in wholesale beef product standards from traditional "commodity" trim of 1 inch of fat cover to "close-trim" produced by physically removing fat during fabrication. It turned out that consumers mostly wanted closely trimmed fed beef rather than grass-fed beef that generally (at that time) had little marbling. Trimming fat at the packer level was additionally efficient by further reducing shipping costs and facilitating markets for edible and inedible tallow rather than simply being waste trim for downstream customers. Over time, more and more fabrication has shifted to the packer level moving from primals to subprimals to a growing set of specific beef products including more boneless and peeled (denuded of fat) products and ultimately to case-ready products. Packers increasingly have additional fabrication facilities producing value-added products including marinated and cooked products and, importantly, case-ready fresh beef for retail grocery. With a few notable exceptions, major grocery chains do not maintain butcher shops in stores and have little ability for in-store fabrication. Some small/independent grocers continue to utilize in-store butcher shops but now can source exactly the set of wholesale beef products desired for the grocery case. Previously grocery stores had to find a way to merchandise all the products that resulted from in-store carcass fabrication. Packers fabricate to specific product specifications for various retail grocery customers, further processing and food service customers, and a variety of export markets. As a result, the major packers produce several thousand different products from a basic fabrication process that begins with several hundred carcass products and by-products of slaughter and fabrication. Some packing facilities in certain locations have some or all packing capacity dedicated to value-added programs that operate as sole-source for upstream suppliers and downstream markets.

Beef Further Processing and Distribution

The food service sector consists of a wide range of restaurants, schools, and institutions such as hospitals and other service facilities and was previously referred to as HRI (hotels, restaurants, and institutions). The end users in this sector rely on further processing and food distribution companies to provide specific beef products. Further processors amplify the set of packer-sourced wholesale boxed beef products into an even larger array of fresh and frozen beef products including portion-control cuts and products that are tenderized, marinated, seasoned, breaded, and partially/fully cooked. This sector provides a variety of services for food service customers in addition to product processing, including product aging (wet or dry), cold storage (refrigerated, deep chill (suspended fresh) or frozen), and packaging for back-of-house restaurant convenience and efficiency.

The COVID-19 pandemic revealed, somewhat to the shock and surprise of both consumers and producers, that the supply chains for retail grocery and food service are largely separate, very specialized, and quite complex. Not only are various beef cuts often used in different supply chains or used differently, but products like ground beef for retail grocery and for food service originate in very different supply chains (Peel, 2021). These specialized supply chains have developed over time to be efficient and reduce costs but are now revealed to be somewhat rigid and lack flexibility that could become more important in uncertain environments.

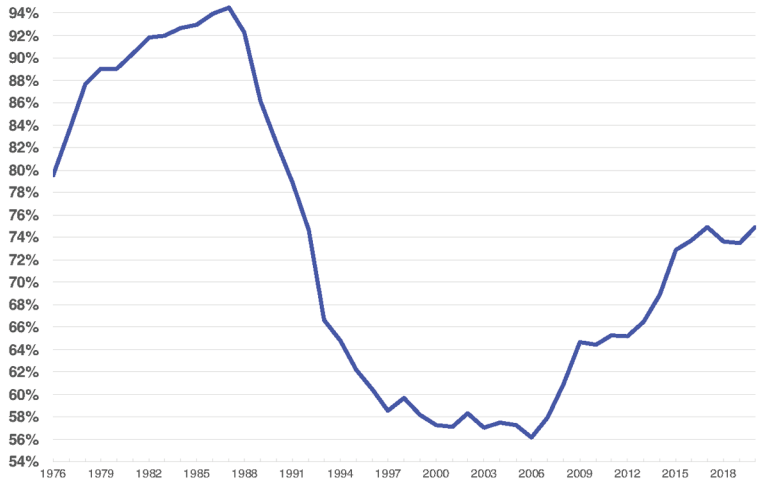


Source: Calculations by Peel from USDA-NASS and USDA-AMS data, compiled by LMIC.

Figure 1.24. Percent of Beef Graded, Federally Inspected, 1976 - 2020.

Beef Grading

USDA commodity beef grades were developed in the first half of the 20th century and have been revised and adapted numerous times. The current set of carcass grades were established in 1941 and continue to be the basis for the majority of beef marketing. Grading is voluntary and the use of beef grades has changed considerably over time. In the era of carcass beef, many grocery stores did not rely heavily on grades. Much of the Choice and virtually all of the Prime beef was directed to the food service (HRI) trade. Instead of merchandising Select beef, retail groceries often purchased ungraded or "no-roll" beef. This changed dramatically in the 1980s as retail grocery switched to graded beef and actively marketed Select and Choice beef. Figure 1.24 shows that in the four-year period from 1989 to 1992, the percent of beef graded jumped from roughly 55 percent to about 82 percent. Recognizing that cull cow and bull carcasses are rarely graded, this means that nearly 100 percent of steer and heifer carcasses were then graded. Figure 1.25 shows the percent beef graded that is Choice. It appears that Choice grading declined sharply in the late 1980s and early 1990s, but this reflects the change in grading percentage from Figure 1.24. In other words, 94 percent Choice of 56 percent of beef graded in 1988 is roughly the same as 56 percent Choice of, say, 95 percent of steer and heifer beef graded in 1992. A similar explanation applies to Figure 1.26 that shows the change in Prime grading over time. The important story for both Choice and Prime has been the increase in high quality beef



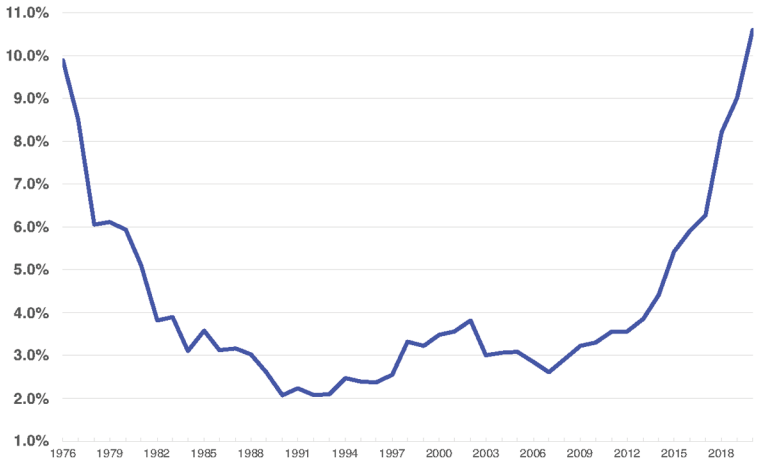
Source: USDA-AMS, compiled by LMIC.

Figure 1.25. Percent of Beef Graded Choice, Federally Inspected, 1976 - 2020.

grading in recent years. Choice beef grading percentage increased from roughly 56 percent in 2006 to over 74 percent currently. The increase in Prime grading has occurred more recently with percent of Prime beef less than four percent as recently as 2013 but increasing to nearly 11 percent in less than a decade. Figure 1.24 indicates a slight decrease in percent of beef graded in recent years. This may be the result of growth in branded beef marketing programs that do not rely on commodity grades. Historically, commodity grades were developed to provide quality information to consumers in situations where products were marketed in commodity form rather than differentiated products. However, most branded beef programs continue to use USDA grades as a component of the brand specifications.

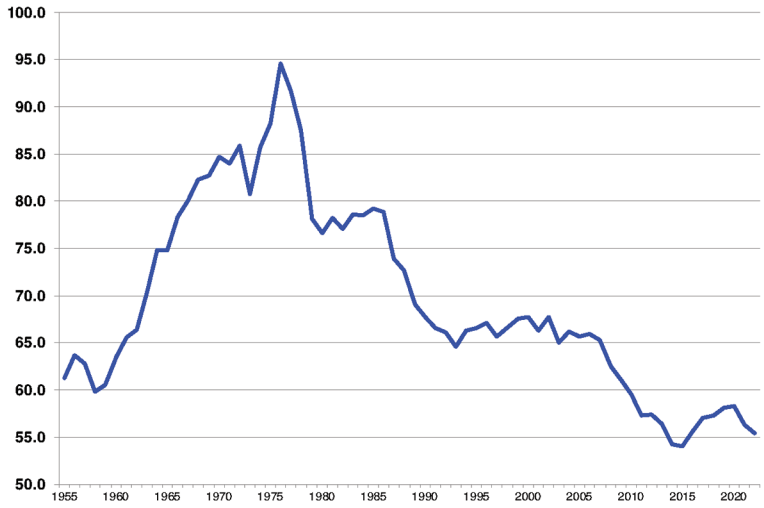
Beef Demand

Economists define demand for beef (or indeed any product) as the consumers' willingness to purchase a given quantity of the product at a given price. If we know the range of quantities purchased over a range of prices, holding other factors that affect demand constant, we can draw a demand curve for the product. Figure 1.27 shows per capita beef consumption since 1955. Beginning at about 61 pounds, per capita beef consumption increased to a 1976 peak of 95 pounds and has generally decreased, with periods of stable consumption to current levels of 55 pounds/capita. Figure 1.27 is not a measure of beef demand but rather is better viewed as a measure of beef supply. Beef is a perishable product and will be consumed if produced and Figure 1.27 reveals the available per capita domestic



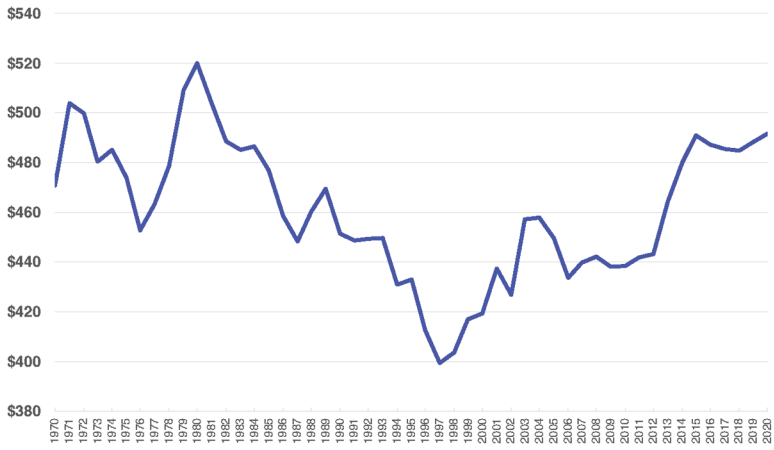
Source: USDA-AMS, compiled by LMIC.

Figure 1.26. Percent of Beef Graded Prime, Federally Inspected, 1976 - 2020.



Source: Compiled and analysis by LMIC from USDA data.

Figure 1.27. Beef Consumption, Pounds per Capita, Retail Weight, 1955-2020.



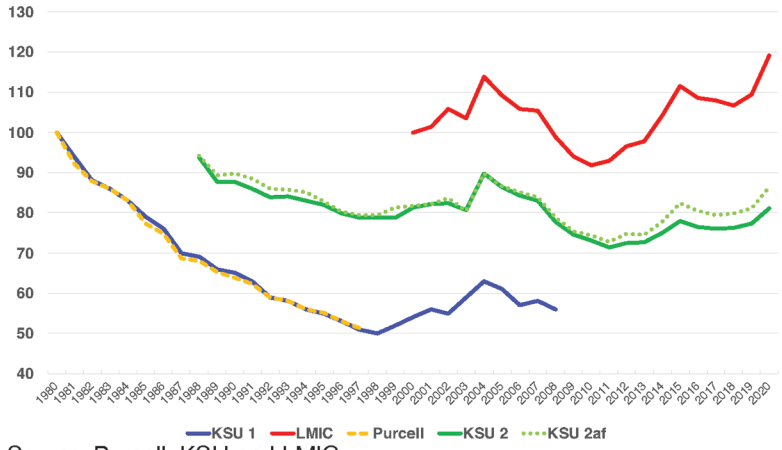
Source: Calculations by Peel from USDA-ERS data, compiled by LMIC.

Figure 1.28. Retail Beef Price, Dollars per Hundredweight Deflated (2010 = 100), 1970 - 2020.

supply of beef, adjusted for population changes and net trade flows. However, Figure 1.27 does show the central fact that beef consumption per person declined significantly starting in the late 1970s.

The other principal component of beef demand is price. Figure 1.28 shows inflation-adjusted retail beef prices since 1970. Real retail beef prices decreased from a peak in 1980 to a low in 1997 before generally increasing to current levels. Economists combine this quantity and price data into models that also account for other demand factors to create demand indices that show relative changes in beef demand over time. Figure 1.29 is a plot of several beef demand indices from various researchers. These demand indices use different models, different base years and different price series (some are based on the Choice retail beef price and others on the broader All-Fresh retail beef price). Comparisons across indices are not valid, but each index over time and the relative pattern of changes across indices are revealing. The indices consistently show that beef demand decreased from 1980 to about 1998 then increased with another drop in 2010 to 2011 followed by general increases in the last decade.

While useful as a general indication of beef demand, there are numerous limitations to the aggregate demand analyses in Figure 1.29. The retail price series are imperfect measures of retail beef product prices. More importantly, retail grocery is only one consumer market channel and we do not have prices for beef in food service and export channels. Moreover, reducing beef consumption to a single aggregate measure glosses over the fact that beef is actually consumed as a broad set of specific products, each of which is a separate market and a separate demand, usually interrelated with many other beef product demands as well as other demand factors (Clark, 2019).



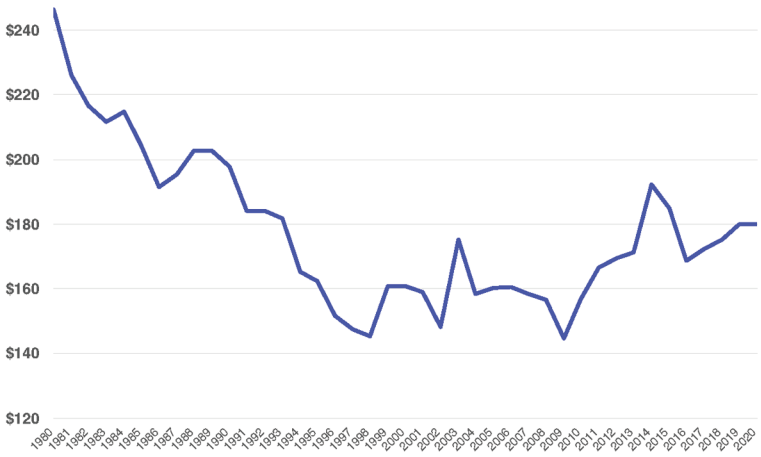
Source: Purcell, KSU and LMIC.

Figure 1.29. Beef Demand Indexes, Choice (KSU 1, KSU 2, Purcell) and All Fresh (LMIC, KSU 2af), 1980 - 2020.

Choice and Select boxed beef prices are, in some ways, a better measure of the value of the entire set of beef products, but these also have many limitations. Boxed beef prices attempt to capture the wholesale value of beef products and convert them to a rough carcass equivalent. Boxed beef prices are calculated from of a set of roughly 50 reported wholesale cut prices. The set of products included in boxed beef prices changes over time to reflect changing fabrication styles and product mixes. This makes the reported boxed beef price more closely reflect the value at a point in time, but more difficult to compare over time. Today's boxed beef prices reflect products with substantially higher levels of fabrication than earlier. For example, in recent years, wholesale prices are reported for the Top Blade (used to make Flat Iron steaks) and the Chuck Tender, both derived from the Chuck Clod subprimal. These products offer higher value potential, but they also represent additional fabrication and labor cost. Figure 1.30 shows inflation-adjusted Choice boxed beef prices since 1980. The figure indicates that wholesale beef values have generally increased since the late 1990s. Exactly what this means (especially for things like packer profitability) is not easily understood. The set of beef products originating at the packing level has expanded considerably but so has the amount of further processing requiring additional fabrication (and cost).

Packing Capacity and Industry Concentration

Suspicion and animosity between cattle producers and beef packers is nearly as old as the industry itself. Ward (2002) includes a quote from Senator John B.

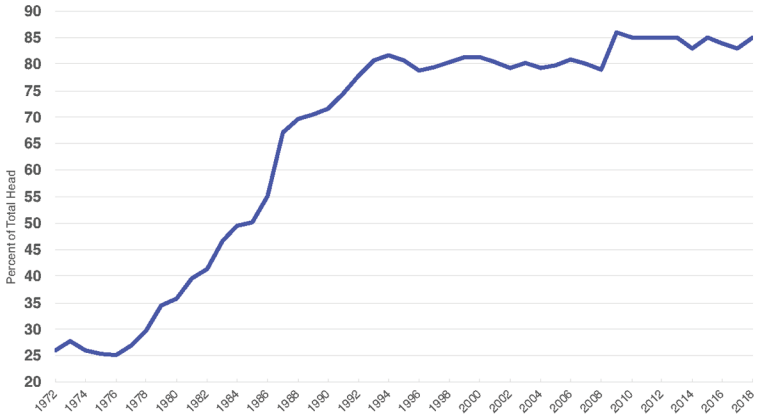


Source: Calculations by Peel from USDA-AMS data, compiled by LMIC.

Figure 1.30. Choice Boxed Beef Price, Dollars per Hundredweight Deflated (2010 = 100), 1980 - 2020.

Kendrick, Wyoming in 1919: "This squall between the packers and producers in this country ought to have blown over forty years ago, but we still have it on our hands …" The "Big Four" meat packers at the turn of the 20th century were Armour, Swift, Cudahy, and Wilson. These companies and their descendants gave rise 80 years later to a new "Big Four," known today as Tyson, JBS, Cargill and National. The cost efficiencies associated with beef packing and fabrication (known as economies of size) are very strong economic drivers and, on the heels of the boxed beef revolution and continued fabrication and product innovations previously discussed, led to rapid concentration of beef packing in the 1980s (Figure 1.31). The four-firm concentration ratio is the percent of the market controlled by the four largest firms. The four-firm concentration ratio increased from less than 30 percent in the late 1970s to over 80 percent in just about a decade through a series of mergers and acquisitions by the largest firms (Ward, 2002). The four-firm concentration ratio has been relatively stable since the early 1990s, averaging 80.2 percent from 1993 to 2008, then stepping up in 2009, and averaging 84.6 percent the past decade (Figure 1.31).

Economies of size in beef packing is well documented and significant (e.g., McDonald *et al*., 2000). The largest packing plants have considerable cost advantages over smaller (but still large) packing plants even half that size. However, increased concentration means that large firms have market power, thus raising the potential for anti-competitive behavior. Research shows that small but significant negative price impacts of market power are outweighed by several magnitudes in cost efficiencies that benefit producers and consumers (Peel *et al*., 2020).

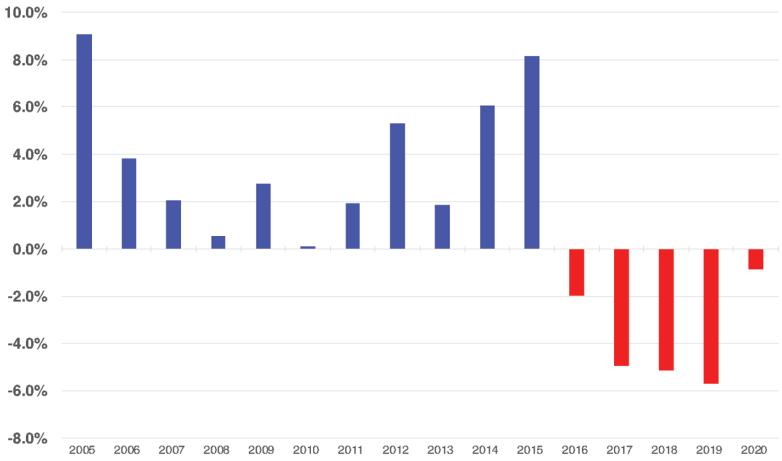


Source: Ward and USDA-GIPSA.

Figure 1.31. Four-Firm Concentration Ratio, Steer/Heifer Packing, 1972 - 2018.

Much of the beef packing infrastructure in the United States was built in the 1980s when cattle inventories were 15 to 20 percent larger than today. In the intervening time, the cattle industry has operated with excess packing capacity as cattle numbers declined (Figure 1.18). Slowly, packing capacity declined with several permanent plant closures including the ConAgra plant in Garden City, Kansas in 2000 (the plant burned and was not rebuilt); the Tyson plant in Emporia, Kansas in 2008; and the Cargill plant in Plainview, Texas in 2013. The reduction in packing capacity – combined with the cyclical herd expansion from 2014 to 2019 – resulted, for the first time in more than 35 years, in a shortage of cattle packing capacity (Figure 1.32). Estimated steer plus heifer slaughter capacity has been less than slaughter since 2016, which means that the packing industry is meeting slaughter demands by increasing Saturday slaughter and stretching normal operating schedules. This fundamental change in fed cattle supply and demand balance is impacting fed cattle markets in ways not seen for many years.

The reduction in packing capacity – combined with the cyclical herd expansion from 2014 to 2019 – resulted, for the first time in more than 35 years, in a shortage of cattle packing capacity.



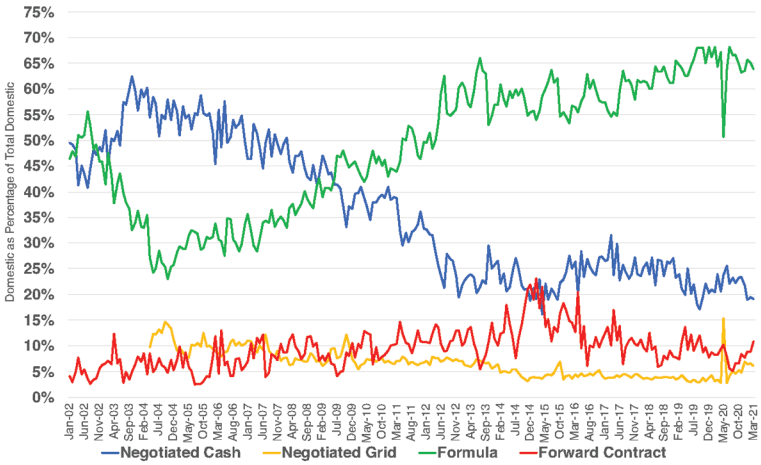
Source: Calculated by Peel from USDA-NASS and Cattle-Fax estimates.

Figure 1.32. Estimated Excess Steer and Heifer Packing Capacity, 2005 - 2020.

Fed Cattle Pricing and Alternative Marketing Arrangements

Until the 1990s most fed cattle were priced on averages, at the pen level and even entire showlists. Very little quality differentiation meant that high quality cattle were undervalued, and low-quality cattle usually received the average price. Packers had little incentive to differentiate cattle quality since they had to process all the cattle anyway. All that was important to packers was to get the average correct. The lack of quality signals meant that producers had little incentive to improve cattle. The problem was apparent; quality grading was low and beef demand was declining. This led to a major push in the industry for "value-based marketing," which aimed to differentiate and value cattle according to quality differences. The result was the development of grid pricing in which a matrix of quality characteristics was applied to a base price to determine fed cattle premiums and discounts. Both buyers and sellers of fed cattle recognized the transaction costs of continually negotiating these grid sales. This quickly led to the use of formulas which incorporated the grid matrix and utilized a base price from an external source, most commonly a publicly reported cash price. In other cases, cattle were forward contracted. There were also concerns about packer-owned cattle, which diminished later as Cargill divested Caprock Cattle Feeders and JBS divested Five Rivers Cattle Feeding in the late-2010s.

By the late 1990s, these various pricing and ownership arrangements led to concerns about "captive supplies" (later referred to as Alternative Marketing



Source: USDA-AMS, compiled by LMIC.

Figure 1.33. Fed Cattle Pricing, 2002 - 2021.

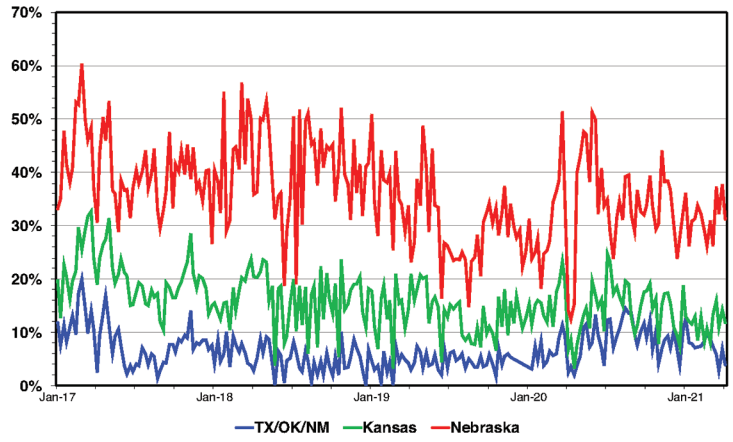
Arrangements or AMAs) and thinning cash markets.[2] One outcome was Livestock Mandatory Reporting (LMR) legislation requiring mandatory price reporting of fed cattle. The act was implemented in 2001. Figure 1.33 plots LMR data showing the percentage of fed cattle pricing by various categories. The figure confirms that negotiated cash trades declined in the 2000s from roughly 55 percent to a level ranging from 20 to 25 percent. Negotiated cash trades have remained at this level for the last decade. Concerns about thin markets and price discovery in fed cattle markets have persisted and grown sharper recently. Several current proposals would mandate a fixed percentage of negotiated cash trade for fed cattle. Many of the issues and concerns about thin markets and price discovery are summarized in Peel *et al.*, 2020.

Part of the complexity of the cattle industry is the significant regional variation in production and marketing practices and attendant diversity of cattle industry culture in various parts of the country.

Regional Fed Cattle Pricing Issues

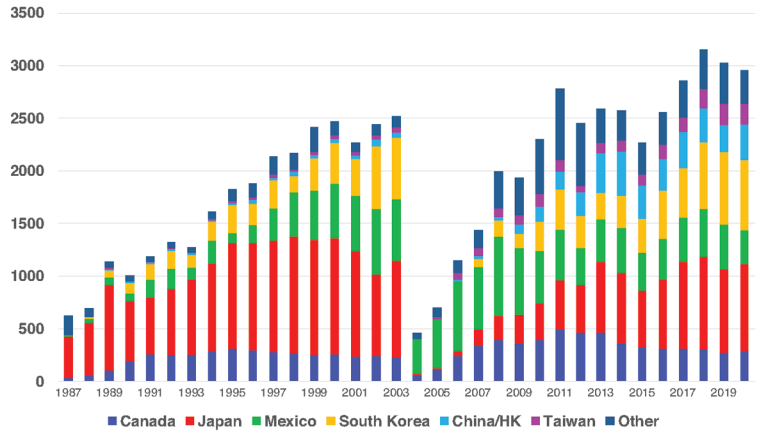
Part of the complexity of the cattle industry is the significant regional variation in production and marketing practices and attendant diversity of cattle industry

[2] As discussed in detail in Chapter 5, AMAs commit cattle to packers in a formula relationship. While this has been referred to as "captive supplies," the inventory of fed cattle is not captive or under the control of the packer.



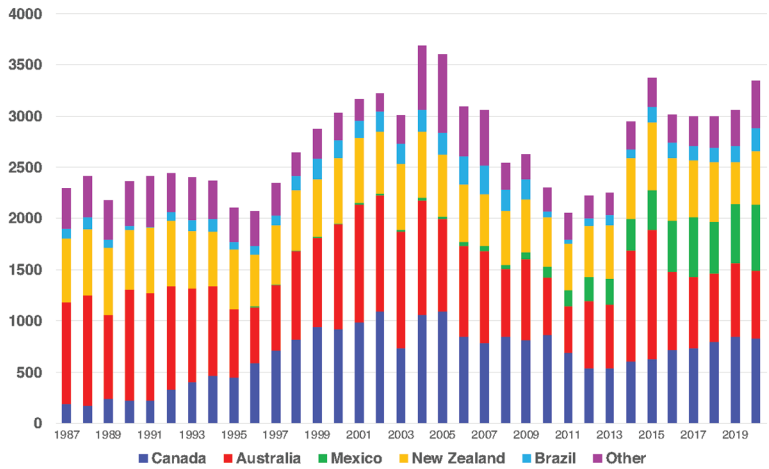
Source: USDA-AMS, compiled by LMIC.

Figure 1.34. Negotiated Cash Steers/Heifers as Percent of Sales by Region, Weekly, 2009 - 2021.



Source: USDA-ERS, compiled by LMIC.

Figure 1.35. U.S. Beef Exports, 1,000 Tons, 1987 - 2020.



Source: USDA-ERS, compiled by LMIC.

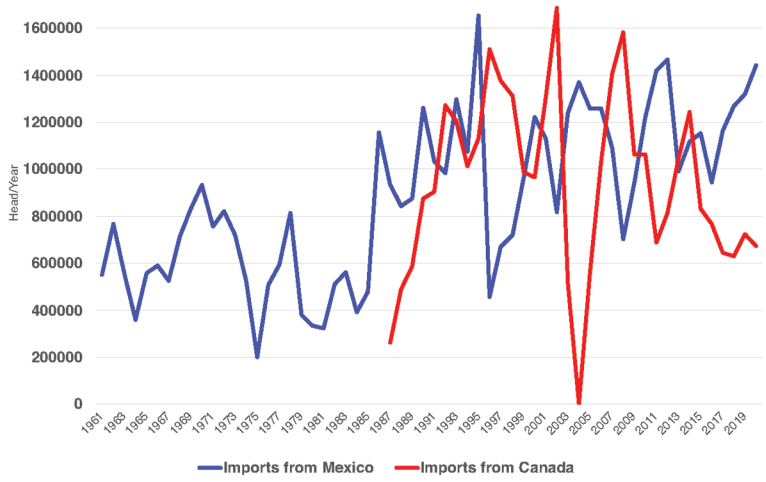
Figure 1.36. U.S. Beef Imports, 1,000 Tons, 1987 - 2020.

culture in various parts of the country. The feedlot industry reflects this with characteristic differences in structure, business practices, and attitudes in different regions. The Midwest has a traditional history that evolved from farmer-feeders to smaller, independent feedlots. The southern and central plains include a higher proportion of large multi-feedlot operations and most of the largest cattle feeding firms are based in this region. These regional differences have led to marked differences in fed cattle pricing in different areas. Figure 1.34 shows the average negotiated cash percentage for the three largest cattle feeding areas of Kansas, Nebraska, and Texas/Oklahoma/New Mexico. The cash trading percent is the lowest in the TX/OK/NM area and the highest in Nebraska. Regional variation in feedlot marketing practices is a significant contributor to the diverse concerns and variable perspectives about the nature of price discovery issues and proposed solutions that are currently evident in the cattle industry. Many concerns are couched in the context of price discovery (discussed in detail in Chapter 2) but really extend beyond price discovery per se into the long-standing suspicions related to concentration and market power.

International Trade of Beef and Cattle

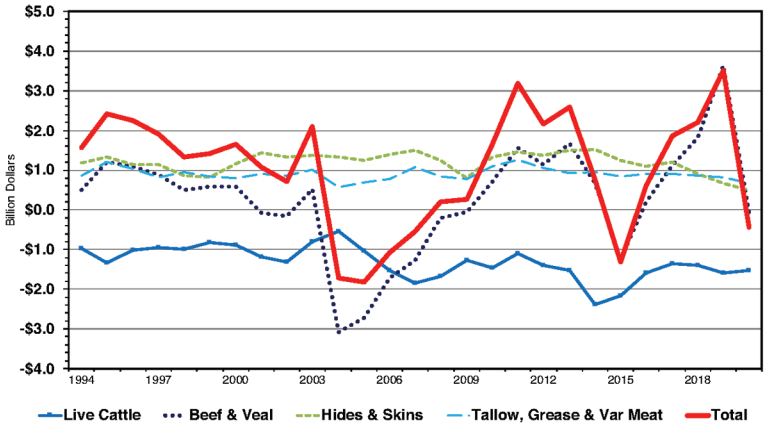
International trade of beef and cattle continues to grow in importance to the beef cattle industry. The United States is both a major exporter and importer of beef, and is currently projected to be the number two global beef exporter and the number two global beef importer (USDA-FAS 2021). Figure 1.35 shows U.S. beef exports to major destinations since 1987. Beef exports have grown significantly since the late 1980s with a major setback and long recovery after the first U.S. BSE (Bovine Spongiform Encephalopathy) case in late 2003. Recent growth in beef exports to China/Hong Kong represent potential to significantly expand beef exports beyond the current dominant markets of Japan and South Korea. U.S. beef imports from major sources are shown in Figure 1.36. The United States has long imported significant amounts of beef, primarily processing beef to support the food service ground beef market in the United States. An exception is beef imports from Mexico, which have grown sharply since 2013 and consists largely of cuts that are marketed to retail grocery.

The increasingly integrated North American cattle and beef industry includes trade in live cattle between the United States, Mexico, and Canada. The United States imports a mix of feeder cattle, fed cattle and cull cows/bulls from Canada along with feeder cattle from Mexico (Figure 1.37). Cattle imports from Mexico have averaged 1.2 million head annually for the past decade. Imports of Canadian cattle have averaged about 800,000 head per year for the past decade. The United States does export some cattle to Mexico and Canada. These cattle exports are relatively small compared to cattle imports from Mexico. The number of cattle exported to Canada has increased since 2017 and the volume of cattle exported to Canada in 2020 was 40 percent of the volume of cattle imports from Canada. U.S. cattle trade with Mexico has a long and somewhat colorful history that includes trade during the Mexican Revolution (1910 to 1920) when the northern haciendas



Source: USDA-ERS, compiled by LMIC.

Figure 1.37. U.S. Imports of Mexican and Canadian Cattle, 1961 - 2020.



Source: USDA-FAS, compiled and analysis by LMIC.

Figure 1.38. U.S. Beef Industry Net Export Values, Annual, 1994 - 2020.

sold cattle to the United States to finance the Mexican government, and Pancho Villa sold cattle stolen from the haciendas to the United States to finance the revolutionaries.

The fact that the United States is both an exporter and importer of beef leads to many questions. The answer is a recognition that beef is not a single product but consists of many different products with varying demands and uses. The United States exports beef products that have higher value in foreign markets and imports products demanded in the United States that can be obtained more economically in foreign markets. As noted previously, beef imports are driven by the need for lean processing beef to support the enormous U.S. appetite for hamburgers. Though the volume of U.S. beef exports and imports is roughly equal, the value of products exported is typically higher than the value of beef products imported (Figure 1.38). Figure 1.38 also shows that the total trade picture involves not only beef but live cattle, hides, variety meats and tallow. The net value of trade for all these markets has been about $1.5 billion annually for the last decade.

The value of international beef and cattle trade goes beyond the value reported in Figure 1.38. The disassembly of cattle into thousands of beef products inevitably leads to a mix of products that does not match consumer preferences in the United States, so some will have low demand. Some products, such as variety meats, would have little or no value without exports and would be redirected to the pet food industry or to rendering. Other products would be consumed in the United States in the absence of exports, but at the expense of higher value demand for more preferred products. In other words, exporting less desired products boosts domestic beef demand by allowing consumers to focus their beef spending to their highest value. Beef is a perishable product which will be consumed by someone, and if all products must be consumed in the domestic market, it will happen only with lower total value. The value and importance of international beef and cattle trade to the U.S. beef cattle industry continues to grow.

Country of Origin Labeling

The 2002 Farm Bill included legislation to require country of origin labeling on beef and ground beef. While imported meats have been labeled since 1930, this law required meat from imported animals, along with ground beef, to carry detailed labels listing all origins for beef sold in retail grocery (Peel, 2009). The law did not apply to food service or highly processed products. The law specifically forbade USDA from implementing an animal identification system in order to verify the origin of domestically produced cattle. After several modifications and delays, mandatory country of origin labeling (mCOOL) was implemented in 2008. The United States lost a WTO case challenging the rule and ultimately removed the law in 2015 when faced with expensive tariffs from trading partners. Despite the lack of research that shows any demand increase or net value to the industry from mCOOL, along with numerous studies that verify the increased costs associated with mCOOL, the idea retains strong support among some cattle producers. It should be noted that there have never been any restrictions on the

use of voluntary origin labels to the extent that such efforts provide value in beef product markets.

Where We Are Now

In many ways, the cattle and beef industry has evolved significantly over time. A growing set of beef products are marketed through a vast array of retail grocery, food service, and export markets. An expanding set of specialized beef markets is capturing additional product value for branded programs based on grass-fed, natural (defined variably), non-hormone treated, or other attributes or consumer-desired production practices. The importance and value of international beef and cattle trade continues to grow and offers the greatest potential for sustained growth in the industry. Beef exports and imports help to optimize the mix of beef products in domestic markets and increase value directly and indirectly. Value-based marketing has provided incentives for cattle producers to increase beef quality over time as indicated by sharply higher Choice and Prime grading percentages and strong beef demand in recent years.

On the other hand, little has changed. As indicated by the Purcell quote that began this chapter, the concerns, issues, and proposed solutions have changed little from cattle producers' perspectives. The adversarial relationship between producers and packers has not improved and is arguably worse than ever. Regional and sectoral differences among cattle producers are sharper and more bitter than ever. Producers have cycled through a veritable list of perceived villains over time including packer concentration/market power, price discovery, beef and cattle imports, and futures markets. Historically, periods of high cattle prices have significantly diminished producer concerns only to see them revived during typical industry dynamics. The turmoil of the past two years has revived all these concerns simultaneously and added a couple of new ones in the form of supply chains and cold storage. There are numerous, very real issues and concerns in cattle and beef markets now and going forward. These deserve serious attention and consideration, based on careful evaluation developed from past and needed future research. There are also many distractions. To conclude, it is worth repeating the words of Dr. Wayne Purcell:

> *"The big danger is that all the attention on short-run and highly visible issues will block recognition of the problems that are long run and structural in nature and, in the process, prevent efforts to move to programs and policies that have a legitimate chance of helping."*

Summary

This chapter had two principal objectives: 1) to highlight the extraordinary complexity of the beef and cattle industry and 2) to provide a historical perspective to understand how the industry has evolved over time to have the characteris-

tics, structure, and practices that make up the industry today. Both are critical in the face of many varied legislative solutions being proposed at the current time. Whether we are considering proposals such as mandated cash trading levels, mCOOL, or others, it is essential that producers, industry leaders, and policymakers understand the difficulty of successfully intervening in complex market systems without producing numerous and detrimental unintended consequences. Overly simplistic, one-size-fits-all legislative solutions to complex problems are almost certain to impede and interrupt the complicated, dynamic market signals and adjustments that coordinate a vast array of cattle and beef markets. The cattle industry has historically strongly embraced market systems. Many current proposals represent a significant departure from that market-oriented tradition and producers and policymakers are advised to proceed with great caution and deliberation before invoking simplistic solutions with great potential for long-term harm to the industry and to consumers.

References

Clark, L.E.. 2019. *Disaggregating Beef Demand: Data Limitations and Industry Perspectives*. M.S. Thesis. Department of Agricultural Economics, Oklahoma State University.

MacDonald J. M., M. E. Ollinger, K. E. Nelson, and C. R. Handy. 2000. *Consolidation in U.S. Meatpacking*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, Agricultural Economic Report No. 785.

Maples, Joshua G., Jayson L. Lusk and Derrell S. Peel. "Unintended Consequences of the Quest for Increased Efficiency in Beef Cattle: When Bigger isn't Better" *Food Policy*. https://doi.org/10.1016/j.foodpol.2017.11.005, November, 2017.

Peel, Derrell S. "An Overview of the Impacts of Corn Demand for Ethanol." Fact Sheet EFC-02, Livestock Marketing Information Center, February, 2007. https://www.lmic.info/publications/ethanol-co-products

Peel, Derrell S., "Implementation of Country of Origin Labeling (COOL) in the Beef Industry." Choices, January, 2009.

Peel, Derrell S., David Anderson, John Anderson, Chris Bastian, Scott Brown, Stephen Koontz and Josh Maples. "Price Discovery Issues and Considerations" Circular E-1053, Oklahoma Cooperative Extension Service, November 2020.

Peel, Derrell S. "Beef Supply Chains and the Impact of the COVID-19 Pandemic" Animal Frontiers. Volume 11 (January 2021), No. 1:33-38.

Purcell, Wayne D. "Status, Conflicts, Issues, Opportunities and Needs in the U.S. Beef Industry." May, 1999. https://www.naiber.org/Publications/RILP/ncbawhite.pdf

USDA-FAS "Livestock and Poultry: World Markets and Trade." USDA Foreign Agricultural Service, April 9, 2021. https://www.fas.usda.gov/data/livestock-and-poultry-world-markets-and-trade

USDA-NASS. "2007 Census of Agriculture, United States Summary and State Data." Volume 1, Geographic Area Series, Part 51. February 2009. https://www.nass.usda.gov/Publications/AgCensus/2007/Full_Report/Volume_1,_Chapter_1_US/usv1.pdf

USDA-NASS. "2017 Census of Agriculture, United States Summary and State Data". Volume 1, Geographic Area Series, Part 51. AC-17-A-51, April 2019. https://www.nass.usda.gov/Publications/AgCensus/2017/index.php#full_report

Ward, C.E. "A Review of Causes for and Consequences of Economic Concentration in the U.S. Meatpacking Industry." Current Agriculture, Food and Resource Issues, Issue 3, No. 28, 2002.

Chapter 2

Price Determination and Price Discovery in the Fed Cattle Market: A Review of Economic Concepts and Empirical Work

John D. Anderson, Andrew M. McKenzie, and James L. Mitchell

Introduction

Price discovery and price determination are closely related but distinct economic concepts related to the efficient and effective performance of markets. In discussions regarding the performance of prices in the fed cattle market, these two concepts are frequently not adequately distinguished. This leads to confusion regarding the perceived problems in the market, and consequently, potentially effective solutions. This chapter will describe both price discovery and price determination, focusing on the factors that influence the price discovery process in the fed cattle market. To assess the state of price discovery in regional fed cattle markets, an event study is performed using the reaction of regional cash fed cattle prices to unanticipated information in monthly *Cattle on Feed* reports. Results suggest that, while the information content of negotiated prices by region has changed in recent years, all regions continue to contribute to price discovery in the overall market. This result calls into question the need for proposed policy interventions to improve price discovery, as does the potential for such interventions to impede the ongoing market-driven evolution of pricing institutions in the sector. Few issues in the agricultural economy have attracted as much attention for as long a time as the behavior of prices in the fed cattle market. Questions about the accuracy and volatility of livestock prices – and particularly about the relationship of market structure to those issues – have been thoroughly investigated and hotly contested for well over a century now – with, it seems, little prospect for resolution even now.

A brief example from history should suffice to illustrate the impressive continuity between past and present controversies in the livestock and meat sector. In summarizing the results of a major congressionally-mandated investigation

into meat-packer business practices by USDA and the Federal Trade Commission (FTC) in the early twentieth century, Virtue (1920) notes that:

> One of the most general and persistent complaints of the feeders is that prices of livestock so frequently have no relation to cost of production, and, taken for short periods, no relation to natural market conditions; that these fluctuations introduce so great an element of risk as to make feeding one of the most hazardous of industries, resulting in disastrous losses to the feeders and in the end throwing a great burden on consumers as well. Well-informed stock men are convinced that these erratic price movements can be explained only on the theory of "manipulation" by packers, whom they regard as the beneficiaries of the changes. (p. 652)

The issues that concerned Virtue's "well-informed stock men" related to whether or not livestock prices accurately reflected underlying supply and demand conditions, how quickly those prices adjusted to new information, and whether or not the concentration of market power at the processing level led to intentional, strategic manipulation of these processes. This would be a pretty fair summary of the concerns of today's cattle market participants as well. In slightly more technical jargon, these are issues that touch on the distinct but related concepts of price determination and price discovery.

Price determination refers to how the forces of supply and demand for a particular product or commodity interact to produce an equilibrium price.

In contrast to price determination, price discovery refers to the means by which a particular buyer and seller arrive at a price on a specific transaction.

Definition of Terms

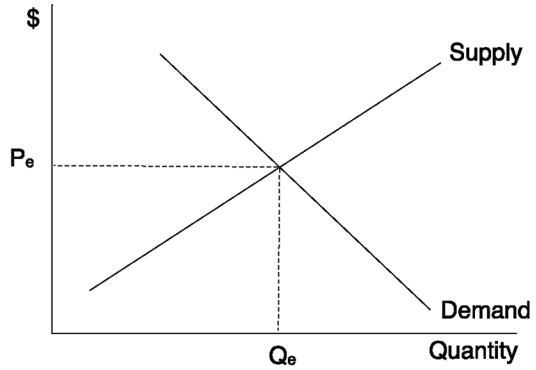
The terms "price determination" and "price discovery" are used virtually interchangeably in a great deal of non-technical communication about markets. However, among agricultural economists, these are terms of art with specific meaning, referring to different but related concepts relevant to any discussion of commodity pricing. In order to productively assess the impacts of changing institutional arrangements in the fed cattle market on price behavior, it is helpful to clearly distinguish between these concepts.

Price determination refers to how the forces of supply and demand for a particular product or commodity interact to produce an equilibrium price. It is concerned not with the outcome of any particular transaction but rather with the general price level that prevails based on fundamental conditions in the broader market. Price determination is well-represented graphically by the classic,

"Marshallian scissors" supply and demand graph, as depicted in Figure 2.1.[1] The interaction of market supply and market demand – reflecting the summation of individual participants on each side of the market – results in an equilibrium price and quantity.

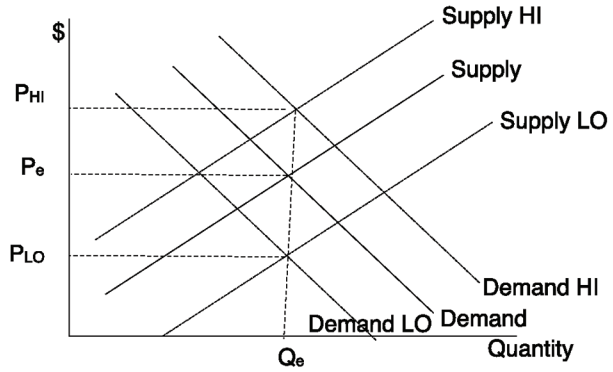
In contrast to price determination, price discovery refers to the means by which a particular buyer and seller arrive at a price on a specific transaction. In reality, market supply and demand are not directly observable. Buyers and sellers lack perfect information, so the equilibrium price and quantity are not as readily

[1] The graphical representations of price discovery and price determination in Figures 2.1 and 2.2 are common depictions of a market. In the context of specifically illustrating price determination and price discovery, though, these graphs borrow directly from Ward and Schroeder (2004).



Notes: P_e and Q_e denote equilibrium price and quantity, respectively.

Figure 2.1. Price Determination in a Hypothetical Market.



Notes: P_e and Q_e denote equilibrium price and quantity, respectively.

Figure 2.2. Price Discovery in a Hypothetical Market.

transparent as Figure 2.1 might imply. Thus bid (buyer) and ask (seller) prices will vary around the equilibrium price in the process of price discovery. This process is illustrated in Figure 2.2, in which the "true" supply and demand are bracketed by the upper and lower estimates of market participants. Bid and ask prices would be expected to fall between the high and low prices implied by the intersection of these supply and demand estimates, centering around the true equilibrium price.

Improving price discovery cannot be expected to improve the overall level of prices if prevailing supply and demand fundamentals are consistent with low prices.

Price discovery is concerned directly with the mechanics by which individual transaction prices (and other terms of trade) are established rather than with broader, and generally more theoretical, issues of how supply and demand fundamentals affect the general price level (Tomek and Kaiser 2014). In effect, then, price determination represents a macro-level perspective on the equilibrium price while price discovery represents a micro-level perspective on the variability of prices around that equilibrium.

With these distinctions in mind, it is worth noting clearly what improving price discovery can and cannot do. Most importantly, improving price discovery cannot be expected to improve the overall level of prices if prevailing supply and demand fundamentals are consistent with low prices. That is, if supply and demand conditions in the market are consistent with low prices (price determination), then the interactions of buyers and sellers in specific transactions should produce a low average price (price discovery). Realistically, what improving price discovery can accomplish is to make prices more efficient.

Efficiency is another term that has a specific meaning among economists. A market is efficient if prices in that market reflect all available information (Fama, 1970). Janzen and Adjemian (2017) note that effective price discovery accomplishes the task of reflecting underlying information in a timely manner and does so via "bona fide transactions or standing bids and offers whose prices are known to all market participants" (p. 1192). This understanding of price discovery offers a useful perspective in that it allows potential price discovery issues to be separated from mere discontent over price determination at a low price point. For example, are market transactions truly bona fide? In a heavily concentrated market where power between buyers and sellers is dramatically asymmetrical, are transactions a reliable reflection of underlying fundamental conditions or are they distorted by the impact of that power asymmetry on the negotiation process? Further, as the volume of transactions declines, are there sufficient transactions or open bids to inform the broader market? In other words, how many negotiated transactions are needed to adequately reflect underlying fundamental information? These and similar issues complicate the conceptually simple relationship between price discovery and price determination.

Complicating Factors: Market Concentration

The meatpacking sector is, and has long been, highly concentrated. The most recent annual report from USDA's Agricultural Marketing Service, Packers and Stockyards Division (2020) puts the four-firm concentration ratio for the steer and heifer processing sector at 85%, consistent with the level of concentration since the 1980s. Concentration ratios in regionally-defined markets are generally even higher (Ward, 1988). This high degree of market concentration has long fostered concern that prices are manipulated through non-competitive behavior (e.g., see the earlier citation from Virtue, 1920). A great deal of work over many years has sought evidence of such behavior in the fed cattle market, but such work has consistently found little support for significant negative price effects of concentration (Ward, 1997; Ward, 1999; Crespi, Saitone, and Sexton, 2012).

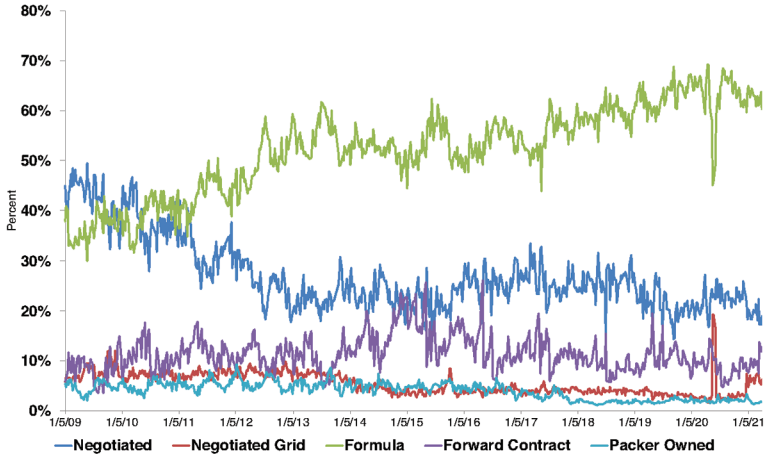
Even aside from the intentional exercise of market power, concentration could have more subtle effects on price discovery. Concentration in the meatpacking industry has largely been driven by the significant economies of size associated with meatpacking operations (Ward, 1988). Bailey and Brorsen (1987) note that economies of size could directly influence price discovery. Larger firms have more total information (public plus private) simply by virtue of the volume of transactions to which they are party. If this combination of information is more accurate than public information alone, price discovery may be affected. Price adjustments to new information in concentrated markets may also be affected if one or two major firms play a price leadership role (Goodwin and Holt, 1999).

This high degree of market concentration has long fostered concern that prices are manipulated through non-competitive behavior. A great deal of work over many years has sought evidence of such behavior in the fed cattle market, but such work has consistently found little support for significant negative price effects of concentration.

Complicating Factors: Thin Market Issues

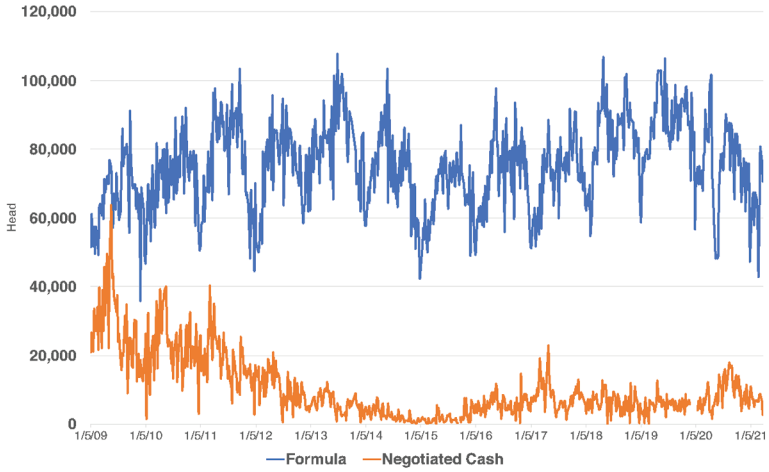
A market in which negotiated transactions over a given period of time are not sufficient to support efficient price discovery is a thin market (Anderson *et al.*, 2007). In a thin market, prices may become a less reliable guide to actual value as supported by market fundamentals and, in so doing, contribute to resource misallocation (Adjemian, Saitone, and Sexton 2016). In a practical sense, in such a market, we would expect to see increasing variability of prices around the equilibrium price; and evaluations of price discovery on thin markets often involve some means of quantifying this phenomenon (Tomek 1980).

There is no doubt that pricing behavior in the fed cattle market has changed dramatically, particularly within the past decade, in ways that raise concerns about



Source: USDA Agricultural Marketing Service, Livestock, Poultry & Grain.

Figure 2.3. Weekly Live Cattle Transactions by Type: Percent of Total Weekly Transactions.



Source: USDA Agricultural Marketing Service, Livestock, Poultry & Grain.

Figure 2.4. Weekly Live Cattle Transactions by Formula and Negotiated Cash Sales: Texas/Oklahoma Reporting Region.

effective price discovery. While the total number of cattle traded each week remains quite large, negotiated transactions as a percentage of all transactions have fallen sharply. This is illustrated in Figure 2.3, which shows the percentage of total weekly fed cattle transactions accounted for by each transaction type reported by USDA's Agricultural Marketing Service from January 2009 through March 2021. The change in the proportion of negotiated cash transactions is significant. For example, in 2010, 45 percent of all fed cattle transactions were negotiated (either negotiated cash or negotiated grid); 39 percent were formula-based transactions. In 2020, just 26 percent of fed cattle transactions were negotiated while 63 percent were formula-based.

The decline in negotiated transactions is more pronounced at the regional level. For example, in the southern Plains feeding region, the volume of negotiated transactions has become quite small in recent years. This is confirmed by Figure 2.4, which shows negotiated cash and formula-based fed cattle transactions in Texas/Oklahoma from January 2009 through March 2021. For the whole of 2020, negotiated cash transactions in this region amounted to just 12% of all fed cattle transactions.

To a large extent, formula-based transactions rely on some previous negotiated price as a key component of the pricing formula (Coffey, Pendell, and Tonsor, 2019). Thus, more and more formula transactions are dependent on negotiated prices that reflect fewer and fewer underlying sales. As Adjemian *et al.* (2016) point out, this has the potential to propagate any pricing inefficiencies more broadly, thus magnifying any pricing problems that already exist. This is not a new concern. Schroeder *et al.* (1998) report results of a survey of both feeders and packers regarding fed cattle pricing practices. Those survey respondents note the potential for quality differences between negotiated and formula sales to result in pricing inaccuracies. Livestock Mandatory Price Reporting (LMR) was intended to alleviate at least some of these concerns. For example, LMR made it impossible for packers to manipulate the base price in formulas by only reporting some of their negotiated prices (Matthews *et al.*, 2015). However, as the negotiated side of the market has thinned further, concerns over pricing accuracy related to formula pricing have intensified.

While many researchers have acknowledged the thinness of the negotiated fed cattle market and the potential for price discovery problems which that implies, considerable empirical work with data available through LMR has yet to document significant problems (Crespi, Saitone, and Sexton, 2012; Brorsen, Fain, and Maples, 2018). In a deep-dive into livestock pricing practices initiated by congressional action and making use of a unique data set on individual transactions compiled by USDA's Grain Inspection, Packers and Stockyards Administration, Muth *et al.* (2007) found small negative price effects from the use of alternative marketing arrangements (AMAs, which include formula pricing). However, they also documented significant cost savings and quality improvements facilitated by AMAs – benefits that far outweighed the small negative price effects, such that eliminating AMAs would reduce both producer and consumer surplus in the sector. In a more recent study, Ward, Vestal, and Lee (2014) found that the relationship between negotiated

and formula prices remained remarkably stable even as negotiated transaction volume declined. Thus, while negotiated transactions in the fed cattle market have clearly thinned, dramatically so in some regions, there is little objective evidence that this has adversely affected price discovery generally or that it has compromised the functioning of formula arrangements tied to negotiated prices.

While negotiated transactions in the fed cattle market have clearly thinned, dramatically so in some regions, there is little objective evidence that this has adversely affected price discovery generally or that it has compromised the functioning of formula arrangements tied to negotiated prices.

The inability of researchers to document thin-market-related pricing problems in the fed cattle sector is not too surprising for two primary reasons. First, defining the point at which a market becomes "too thin" is notoriously difficult (Adammer, Bohl, and Gross, 2016). Previous work on thinning markets shows that relatively few transactions are required to maintain pricing efficiency as long as negotiated transactions are representative of the market as a whole (Tomek, 1980). Second, due to significant economies of size in packing plants, packers have a strong incentive to offer reasonably fair pricing terms in order to ensure optimal throughput for their plants over a long time horizon (Morrison, 2001; Anderson, Trapp, and Fleming, 2003; MacDonald and Ollinger, 2005; Crespi, Saitone, and Sexton, 2012).

Fed Cattle Price Discovery: An Event Study Evaluation of Market Efficiency

A natural question to ask, in light of the increased use of formula pricing and associated concern over the effectiveness of price discovery in an increasingly thin negotiated market is which, if any, of the major LMR regional markets best reflect market supply and demand fundamentals in their negotiated prices? We seek to shed light on this issue using an event study approach to measure price responses to unanticipated information contained in monthly USDA *Cattle on Feed* (*COF*) Reports. The objective of this event study is to determine whether the efficiency of price discovery has been affected by changes in fed cattle pricing practices. Specific objectives are twofold: 1) to determine whether the process of price discovery has changed over time as pricing practices have evolved and 2) to identify any differences in the efficiency of price discovery across regions correlated with regional changes in fed cattle pricing practices.

The issue of cattle market price discovery has drawn much attention in the literature, and a recent study by Coffey, Pendell and Tonsor (2019) found that the role played by the various LMR cash market regions has changed over the years. In particular, they highlighted the growing importance of Colorado as the share of negotiated transactions taking place in more traditional regions – e.g., Texas/Oklahoma/New Mexico – has decreased.

A large amount of literature has shown that grain and livestock market futures prices respond to unanticipated information contained in USDA reports (Grunewald, McNulty, and Biere, 1993; Adjemian, 2012; Garcia *et al.*, 1997; Isengildina-Massa *et al.*, 2008a; Isengildina-Massa *et al.*, 2008b; McKenzie, 2008; Sumner and Mueller, 1989; Karali, Isengildina-Massa, and Irwin, 2019). The unanticipated component of the report, which may be thought of as a market shock, is typically measured as the difference between analyst forecasts of the report and actual report numbers officially released by USDA. Thus, if it can be assumed that USDA reports contain valuable information, then significant price responses that are consistent with that information are indicative of price discovery. With this in mind, we examine the response of the five major LMR regional negotiated cash markets (i.e., Colorado, Iowa/Minnesota, Kansas, Nebraska, and Texas/Oklahoma/New Mexico) to the release of unanticipated information about on-feed inventory, placements, and marketings, contained in *COF* reports. By isolating specific supply and demand shocks, this approach allows us to examine the extent to which market prices respond in a rational manner consistent with effective price discovery. Larger than anticipated increases in on-feed inventory and placements – which reflect larger cattle supplies – should elicit price decreases. Conversely, larger than anticipated increases in cattle marketings – which reflect both increased demand and expectations for smaller remaining short-run supply – should result in price increases.

Each component of the *COF* report provides the market with information that is used to make inferences about current and future beef production. On-feed inventory and marketing more closely relate to near term production, and shocks would be expected to have impacts on current cash market prices or nearby futures contract prices. On the other hand, surprises to cattle placements which have implications for future beef production and affect supplies in future months should influence deferred live cattle futures contract prices and cash prices several months after the *COF* report release date. However, the exact timing of price impacts with respect to surprises in placements is somewhat ambiguous depending upon cattle weights and is ultimately an empirical question. For example, nearby live cattle futures prices and current cash prices could be impacted through a feedback effect whereby the expectation of future price decreases could increase current supplies and depress current cash prices.

Grunewald, McNulty and Biere (1993) found that surprises to both placements and marketings moved deferred live cattle futures prices, but only surprises to marketings affected nearby futures prices. Specifically, when placements are one percent higher than expected, this results in a 0.07 to 0.09 percent decrease in deferred futures prices; when marketings are one percent higher than expected, deferred futures prices increase by 0.15 to 0.18 percent. In contrast, Karali, Isengildina-Massa, and Irwin (2019) showed that surprises to both placements and marketings affected nearby live cattle futures prices prior to 2000, while only shocks to marketings impacted nearby futures prices after 2000. Their results are similar to Grunewald, McNulty and Biere. For example, when placements are one percent higher than expected, nearby futures prices prior to 2000 decrease by 0.04 percent, and when

marketings are one percent higher than expected, nearby futures prices increase by about 0.1 percent over the 1977 to 2016 period.

Data

Monthly livestock market analyst forecasts reported in the *Cattle Buyers Weekly* newsletter and USDA announcements of monthly on-feed inventory, placements and marketings contained in *COF* reports were collected over the January 2004 to December 2020 period.[2] Each month, between four to eight analysts make projections, which are reported in *Cattle Buyers Weekly* on the Monday prior to a Friday's *COF* release date. The average trade estimate is taken to be the median analyst forecast. USDA numbers and analyst forecasts are reported for the current month as a percentage of the comparable month a year ago. Market surprises, or the unanticipated component of the reports, were then measured as the percentage difference between the USDA numbers and the median analyst forecasts for on-feed inventory, placements, and marketings with respect to each monthly report over the sample period.

In addition, weekly weighted average of live steer and heifer cash prices of the five major LMR regions (Colorado, Iowa/Minnesota, Kansas, Nebraska and Texas/Oklahoma/New Mexico) were collected over the same January 2004 to December 2020 period. *COF* reports are typically released on Friday afternoons each month at 2:00 pm central time.[3] To measure LMR region cash price responses to market surprises in on-feed inventory, placements, and marketings, prices for the immediate week prior to a *COF* report release and for the immediate week following a *COF* report release were logged and the percentage change in price around each of the *COF* report months calculated.[4]

Methods

A typical event study model can be written as an Ordinary Least Squares (OLS) regression:

$$1) \qquad P_{+1} - P_{-1} = \tilde{a} + \tilde{b}\left(COF_{ijt}^{USDA} - COF_{ijt}^{Private}\right) + e_t,$$

where in our study, $P_{+1} - P_{-1}$ represents the logged percentage change in the negotiated cash fed cattle price from the week prior to the report release to the week following the report release. The term $\left(COF_{ijt}^{USDA} - COF_{ijt}^{Private}\right)$ represents the surprise or

[2] *Cattle Buyers Weekly*, on occasion, did not publish a monthly preview due to a publishing break or business travel. Over the sample period, this occurred twelve times (September 18, 2017, January 18, 2016, December 14, 2015, July 16, 2012, February 15, 2010, April 13, 2009, September 15, 2008, October 16, 2006, January 16, 2006, September 19, 2005, October 18, 2004, and February 16, 2004).

[3] There were 4 missing observations for the Texas/Oklahoma/New Mexico series and 26 missing observations for the Colorado series because no prices were reported in those regions in certain weeks. The Colorado missing observations occurred between May 2018 and December 2020.

[4] It should be noted that the immediate week prior to a *COF* release is actually the 5 days (Monday to Friday) of the *COF* release week. Given that, *COF* reports are released on Friday afternoons at 2pm central time, a small percentage of the week's LMR recorded prices may have occurred after the *COF* release.

shock element of *COF* reports, where COF_{ijt}^{USDA} represents the USDA forecast of either on-feed inventory, placements, or marketings related information i, observed in month j and year t, and $COF_{ijt}^{Private}$ represents the median livestock market consensus forecast of either on-feed inventory, placements, or marketings related information i, observed in month j and year t (and is a mean zero normally distributed error with constant variance term).

In the traditional event study approach, the estimated regression coefficient measures the average price response to a one percent change in the surprise element of USDA reports. Thus, it is assumed that LMR cash prices only react to the element of *COF* report information that was not anticipated by the analysts and the private sector livestock industry. While we assume that rational LMR cash price reactions to *COF* surprises are indicative of price discovery, we acknowledge that these cash prices are also likely influenced by other market conditions and are likely noisy estimates of price discovery.

We present several different event study results based on equation (1) regressions of cash price changes on *COF* market surprises. First, we analyze our model using data from the full sample period, January 2004 to December 2020. Second, we analyze our model including only observations where placement surprises and marketings surprises would be expected to induce price reactions in the same direction. Our objective is to remove *COF* surprises associated with noisy price signals and only analyze the price impact of consistent, unambiguous bull or bear market surprises. Given that, *a priori*, we would expect price responses to be negatively correlated to placement surprises and positively correlated to marketings surprises, our goal is to remove monthly observations with either (a) larger

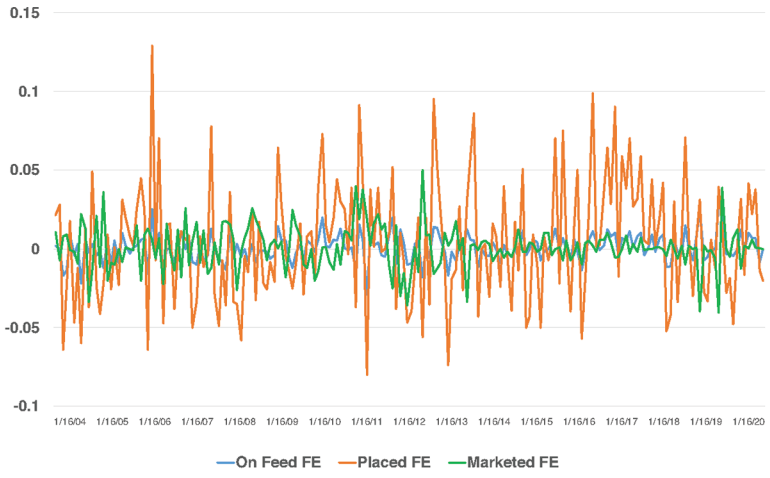


Figure 2.5. Market Surprises or Analyst Forecast Errors (FE) of Cattle on Feed, Placements, and Marketings: 1/16/04 to 12/18/20.

Table 2.1. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises to Cattle on Feed, Placements and Marketings 1/16/04 to 12/18/20.

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.81**	-0.31**	-0.14**	-0.13*	-0.11	-0.1	-0.12*
Placed		1	-0.1	-0.12*	-0.13*	-0.1	-0.11	-0.12*
Marketed			1	0.1	0.08	0.09	0.13*	0.06
Texas[a]				1	0.98**	0.93**	0.93**	0.90**
Kansas					1	0.94**	0.94**	0.91**
Nebraska						1	0.96**	0.94**
Colorado							1	0.91**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

than expected placements and larger than expected marketings, or (b) lower than expected placements and lower than expected marketings. Specifically, we only retain observations for months when positive placement surprises are simultaneously observed with negative marketings surprises (bear market shocks) and negative placement surprises are simultaneously observed with positive marketings surprises (bull market shocks). Third, and again to measure price discovery with respect to clear signals, we retain only observations with large placements (3% or larger in absolute terms) and/or marketings surprises (1% or larger in absolute terms) within our second (consistent bull or bear shock) data category.

In addition, and to make a fairer comparison between LMR markets, the second, third, and fourth applications of our analysis only include months where there are no missing observations across all five reporting regions. Finally, using our second (consistent bull or bear shock) data category, we split the sample between January 2004 to December 2013 and January 2014 to December 2020. Our objective in this case is to examine if the primary LMR cash market price discovery locations change over time. Our motivation stems from the fact that since 2014, the percentage volume of negotiated cash transactions occurring in the Texas/Oklahoma/New Mexico region has decreased dramatically. Prior to 2014, this region accounted for 20% to 40% of negotiated transactions, with the number decreasing consistently over the period (Coffey, Pendell and Tonsor, 2019). However, in the post-2014 period, this number had dropped to around 10% of negotiated transactions, which begs the question as to whether the price discovery role played by this market has also diminished over time.

Results

The size of market surprises for on-feed inventory, placements, and marketings is illustrated graphically in Figure 2.5. Clearly, the magnitude of these surprises

Table 2.2. Response of Negotiated Live Cattle Cash Prices to Market Surprises in Placements and Marketings 1/16/04 to 12/18/20.

Parameters	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Intercept	0.002	0.003	0.003	0.003	0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Placed	-0.074	-0.076*	-0.063	-0.06	-0.069
	(0.046)	(0.045)	(0.047)	(0.048)	(0.042)
Marketed	0.154	0.122	0.142	0.217	0.073
	(0.130)	(0.125)	(0.132)	(0.139)	(0.118)
R-Squared	0.023	0.021	0.017	0.026	0.017
LM(1)	0.528	1.018	0.297	0.369	0.132
	(0.467)	(0.313)	(0.586)	(0.544)	(0.716)
B-P	0.446	0.198	0.312	0.188	0.751
	(0.800)	(0.906)	(0.855)	(0.910)	(0.687)
F Test	2.169	2.058	1.632	2.198	1.648
	(0.117)	(0.131)	(0.198)	(0.114)	(0.195)
Observations	188	192	192	166	192

Standard errors of coefficients are presented in parentheses in top half of table.
LM(1) is Breusch-Godfrey (Lagrange Multiplier test for first order autocorrelation). The test statistic is specified as Chi-Squared with 1 degree of freedom and p-values are presented in parentheses below the test statistic.
B-P is Breusch-Pagan test for heteroscedasticity and p-values are presented in parentheses below the test statistic.
F-test for the hypothesis that all of the coefficients (excluding the constant) are zero with p-values in parentheses.
*Indicates significance at the 10% level.
**Indicates significance at the 5% level.
*** Indicates significance at the 1% level.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

Table 2.3. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with consistent Bull or Bear Market Surprises to Placements and Marketings 1/16/04 to 12/18/20.

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.86**	-0.80**	-0.25**	-0.23**	-0.19*	-0.15	-0.14
Placed		1	-0.67**	-0.29**	-0.30**	-0.24**	-0.23**	-0.20*
Marketed			1	0.27**	0.26**	0.24**	0.20*	0.21*
Texas[a]				1	0.97**	0.89**	0.89**	0.84**
Kansas					1	0.92**	0.93**	0.87**
Nebraska						1	0.95**	0.94**
Colorado							1	0.88**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

has remained constant over time, suggesting that the price discovery role played by *COF* reports has likely not diminished. Surprises to placements are typically much larger than either marketings or on-feed inventory surprises, with the latter by far the smallest. In addition, there does not appear to be any systematic bias in

Table 2.4. Response of Negotiated Live Cattle Cash Prices to Consistent Bull or Bear Market Surprises in Placements and Marketings 1/16/04 to 12/18/20.

Parameters	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Intercept	0.001	0.001	0	0	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Placed	-0.102	-0.118	-0.078	-0.1	-0.049
	(0.074)	(0.078)	(0.080)	(0.084)	(0.076)
Marketed	0.183	0.154	0.203	0.119	0.198
	(0.195)	(0.205)	(0.211)	(0.221)	(0.199)
R-Squared	0.096	0.094	0.07	0.057	0.051
LM(1)	0.562	0.617	0.365	0.171	0.293
	(0.453)	(0.432)	(0.546)	(0.679)	(0.588)
B-P	2.116	0.88	1.053	0.244	1.705
	(0.347)	(0.644)	(0.591)	(0.885)	(0.426)
F Test	4.028**	3.955**	2.847*	2.303	2.058
	(0.022)	(0.023)	(0.064)	(0.107)	(0.135)
Observations	79	79	79	79	79
Placed	-0.148***	-0.157***	-0.130**	-0.130**	-0.100*
	(0.055)	(0.058)	(0.060)	(0.062)	(0.056)
R-Squared	0.085	0.087	0.058	0.054	0.039
Marketed	0.361**	0.361**	0.341**	0.294*	0.285*
	(0.146)	(0.153)	(0.156)	(0.165)	(0.148)
R-Squared	0.074	0.067	0.058	0.04	0.046

Standard errors of coefficients are presented in parentheses in top half of table.
LM(1) is Breusch-Godfrey (Lagrange Multiplier test for first order autocorrelation). The test statistic is specified as Chi-Squared with 1 degree of freedom and p-values are presented in parentheses below the test statistic.
B-P is Breusch-Pagan test for heteroscedasticity and p-values are presented in parentheses below the test statistic.
F-test for the hypothesis that all of the coefficients (excluding the constant) are zero with p-values in parentheses.
*Indicates significance at the 10% level.
**Indicates significance at the 5% level.
*** Indicates significance at the 1% level.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

analyst forecasts with over-estimates equally as likely as under-estimates.

Correlations between market surprises and LMR cash price changes around the *COF* report releases for our whole January 2004 to December 2020 sample period are presented in Table 2.1 and highlight several important implications of the data. First, on-feed inventory and placement surprises are highly positively correlated (0.81), such that including both as explanatory variables in a regression would likely lead to problems of multicollinearity. With this is mind, and given that preliminary specifications indicated that on-feed inventory surprises were insignificant and added no explanatory power beyond placement surprises, we present models and results with on-feed inventory surprises excluded. Second, as expected, on-feed inventory and placement surprises are negatively correlated to marketings. Larger than expected on-feed inventory and placement numbers, which correspond to higher supply, tend to occur when marketings, which are

Table 2.5. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with only large Surprises in both Marketings and Placements with consistent Bull or Bear Market Surprises to Placements and Marketings 1/16/04 to 12/18/20.

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.88**	-0.81**	-0.35**	-0.32**	-0.25*	-0.23*	-0.19
Placed		1	-0.67**	-0.33**	-0.32**	-0.23*	-0.23*	-0.17
Marketed			1	0.33**	0.32**	0.27*	0.24*	0.25*
Texas[a]				1	0.97**	0.87**	0.89**	0.82**
Kansas					1	0.91**	0.93**	0.86**
Nebraska						1	0.96**	0.94**
Colorado							1	0.89**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

associated with lower supply and higher demand, are lower than expected. Third and consistent with economic theory, on-feed inventory and placement surprises – supply side shocks – are negatively correlated to LMR cash price changes, while marketings surprises – demand side shocks – are positively correlated to LMR cash price changes. Fourth, cash price changes across all five LMR market regions are highly positively correlated ($\rho > 0.9$), suggesting that these markets are well integrated and that price discovery signals are quickly transmitted.

Regression results based on equation (1), which measure immediate LMR cash price responses to *COF* surprises for the full sample period, are reported in Table 2.2. Results show that although all cash price responses are of the expected signs, only Kansas prices have a small but significant response to placement surprises. A 1% larger than expected increase in placements results in a 0.076% decrease in Kansas prices, which is roughly in line with previous research measuring cattle futures price reactions (Grunewald, McNulty, and Biere,1993; Karali, Isengildina-Massa, and Irwin, 2019). Also, R-squared values of around 2% show that *COF* surprises explain little of the price variation across LMR markets. If anything, *COF* reports, on average, provide very noisy price signals.

Consistent Bull and Bear Market Pricing Signals

Turning to results for our models designed to measure clearer bull and bear market pricing signals, we can see much stronger correlations between LMR cash prices for all regions and *COF* surprises in Table 2.3. However, a natural and expected effect of organizing our data in this manner is to induce a high degree of correlation ($\rho = -0.67$) between placements and marketings. As such, our regression models based on this data will suffer from muticollinearity between placements

Table 2.6. Response of Negotiated Live Cattle Cash Prices to only large Surprises in both Marketings and Placements with consistent Bull or Bear Market Surprises to Placements and Marketings 1/16/04 to 12/18/20.

Parameters	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Intercept	-0.001	-0.002	-0.003	-0.002	-0.004
	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Placed	-0.083	-0.092	-0.039	-0.058	-0.008
	(0.075)	(0.080)	(0.083)	(0.085)	(0.079)
Marketed	0.225	0.215	0.259	0.191	0.265
	(0.196)	(0.207)	(0.215)	(0.221)	(0.205)
R-Squared	0.129	0.123	0.079	0.066	0.061
LM(1)	0.26	0.084	0.273	0.381	0.452
	(0.610)	(0.772)	(0.601)	(0.537)	(0.501)
B-P	2.11	0.927	0.451	0.015	1.306
	(0.348)	(0.629)	(0.798)	(0.993)	(0.521)
F Test	3.862**	3.659**	2.22	1.828	1.681
	(0.027)	(0.033)	(0.119)	(0.171)	(0.196)
Observations	55	55	55	55	55
Placed	-0.141**	-0.148**	-0.106*	-0.107*	-0.076
	(0.056)	(0.059)	(0.061)	(0.063)	(0.059)
R-Squared	0.107	0.105	0.053	0.052	0.031
Marketed	0.370**	0.376**	0.327**	0.292*	0.278*
	(0.145)	(0.154)	(0.158)	(0.163)	(0.150)
R-Squared	0.109	0.101	0.075	0.057	0.061

Standard errors of coefficients are presented in parentheses in top half of table.
LM(1) is Breusch-Godfrey (Lagrange Multiplier test for first order autocorrelation). The test statistic is specified as Chi-Squared with 1 degree of freedom and p-values are presented in parentheses below the test statistic.
B-P is Breusch-Pagan test for heteroscedasticity and p-values are presented in parentheses below the test statistic.
F-test for the hypothesis that all of the coefficients (excluding the constant) are zero with p-values in parentheses.
*Indicates significance at the 10% level.
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[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

and marketings. It should be noted that the consequences of mulitcollinearity is to reduce the precision or accuracy of our coefficient estimates and increase their standard errors, reducing our ability to detect significant effects in our multiple regression models. However, importantly, the predictive and explanatory power of such models in terms of R-squared values is not diminished, and the joint contribution of our explanatory variables (placement and marketings surprises) can still be measured. Therefore, in the top half of Table 2.4 we present our consistent Bull or Bear market surprise models results for our multiple regression specifications (with both placement and marketings surprises included as explanatory variables), and for comparison purposes we present regression results for placement and marketing surprises modeled separately as explanatory variables.

Table 2.7. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with consistent Bull or Bear Market Surprises to Placements and Marketings 2004 to 2013.

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.88**	-0.81**	-0.22*	-0.21	-0.18	-0.15	-0.12
Placed		1	-0.71**	-0.25*	-0.25*	-0.21*	-0.2	-0.16
Marketed			1	0.29*	0.27*	0.24*	0.2	0.21
Texas[a]				1	0.97**	0.88**	0.90**	0.83**
Kansas					1	0.91**	0.93**	0.87**
Nebraska						1	0.96**	0.94**
Colorado							1	0.89**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

Table 2.8. Correlations between Weekly Changes in Negotiated Live Cattle Cash Prices and Market Surprises with consistent Bull or Bear Market Surprises to Placements and Marketings 2014 to 2020.

	Feed	Placed	Marketed	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Feed	1	0.84**	-0.72**	-0.43*	-0.38	-0.4	-0.31	-0.44*
Placed		1	-0.70**	-0.43*	-0.45*	-0.43*	-0.41*	-0.46*
Marketed			1	0.33	0.37	0.46*	0.41*	0.44*
Texas[a]				1	0.98**	0.95**	0.89**	0.93**
Kansas					1	0.96**	0.95**	0.92**
Nebraska						1	0.92**	0.95**
Colorado							1	0.86**
Iowa[b]								1

* indicates the Pearson correlation coefficient is significant at the 10% level on a two tailed test.
** indicates the Pearson correlation coefficient is significant at the 5% level on a two tailed test.
[a]Texas refers to the Texas-Oklahoma-New Mexico market.
[b]Iowa refers to the Iowa-Minnesota market.

Although, as expected, coefficients are not significant for our multiple regressions, the R-squared values are much higher in comparison to our full sample results presented in Table 2.2. The Texas/Oklahoma/New Mexico and Kansas markets appear to best incorporate the *COF* information with around 10% of the weekly price variation following the report release dates explained by surprises to placements and marketings. In contrast, only 5% of the weekly price variation is explained by the surprises in the Colorado and Iowa/Minnesota markets. These price impacts are confirmed by our separate regression results shown at the foot of Table 2.4. Clearly, by focusing on unambiguous bull and bear market signals in *COF* reports over the full sample period, our results show that the primary price discovery markets are Texas/Oklahoma/New Mexico and Kansas. These results are perhaps not surprising given that the Texas/Oklahoma/New Mexico

Table 2.9. Response of Negotiated Live Cattle Cash Prices to Consistent Bull or Bear Market Surprises in Placements and Marketings 2004 to 2013.

Parameters	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Intercept	0	0	-0.001	-0.001	-0.002
	(0.002)	(0.002)	(0.003)	(0.003)	(0.003)
Placed	-0.048	-0.063	-0.05	-0.068	-0.007
	(0.093)	(0.097)	(0.104)	(0.107)	(0.101)
Marketed	0.255	0.222	0.228	0.151	0.249
	(0.207)	(0.216)	(0.232)	(0.239)	(0.225)
R-Squared	0.086	0.078	0.061	0.045	0.045
LM(1)	0.177	0.16	1.508	0.475	0.487
	(0.674)	(0.689)	(0.220)	(0.491)	(0.485)
B-P	0.434	0.151	0.756	0.211	1.384
	(0.805)	(0.927)	(0.685)	(0.900)	(0.501)
F Test	2.713*	2.451*	1.889	1.368	1.358
	(0.075)	(0.095)	(0.161)	(0.263)	(0.265)
Observations		61	61	61	61
Placed	-0.129*	-0.134*	-0.123*	-0.116	-0.087
	(0.066)	(0.068)	(0.073)	(0.075)	(0.071)
R-Squared	0.062	0.061	0.045	0.039	0.024
Marketed	0.331**	0.322**	0.308*	0.257	0.26
	(0.145)	(0.151)	(0.162)	(0.167)	(0.157)
R-Squared	0.081	0.071	0.057	0.039	0.045

Standard errors of coefficients are presented in parentheses in top half of table.
LM(1) is Breusch-Godfrey (Lagrange Multiplier test for first order autocorrelation). The test statistic is specified as Chi-Squared with 1 degree of freedom and p-values are presented in parentheses below the test statistic.
B-P is Breusch-Pagan test for heteroscedasticity and p-values are presented in parentheses below the test statistic.
F-test for the hypothesis that all of the coefficients (excluding the constant) are zero with p-values in parentheses.
*Indicates significance at the 10% level.
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and Kansas markets accounted for around 50 to 70% of the overall volume of negotiated transactions/marketings over the sample period (Coffey, Pendell and Tonsor, 2019).

Large Bull and Bear Market Pricing Signals

We find similar results when we further breakdown the consistent bull and bear market data to focus only on large surprises to placements and marketings. The correlations between surprises and prices presented in Table 2.3 and the large bull and bear market pricing signal regression results shown in Table 2.6 again highlight the importance of Texas/Oklahoma/New Mexico and Kansas markets for

Table 2.10. Response of Negotiated Live Cattle Cash Prices to Consistent Bull or Bear Market Surprises in Placements and Marketings 2014 to 2020.

Parameters	Texas[a]	Kansas	Nebraska	Colorado	Iowa[b]
Intercept	0.005	0.005	0.005	0.006	0.004
	(0.005)	(0.006)	(0.005)	(0.006)	(0.004)
Placed	-0.21	-0.208	-0.104	-0.137	-0.126
	(0.174)	(0.184)	(0.158)	(0.182)	(0.133)
Marketed	0.199	0.451	1.042	0.887	0.669
	(1.198)	(1.264)	(1.084)	(1.250)	(0.916)
R-Squared	0.189	0.207	0.23	0.195	0.241
LM(1)	0.823	0.824	1.159	0.368	0.359
	(0.364)	(0.364)	(0.282)	(0.544)	(0.549)
B-P	0.478	0.229	0.123	0.617	0.797
	(0.788)	(0.892)	(0.941)	(0.735)	(0.671)
F Test	1.748	1.959	2.238	1.82	2.383
	(0.208)	(0.175)	(0.141)	(0.196)	(0.126)
Observations	18	18	18	18	18
Placed	-0.230*	-0.254*	-0.211*	-0.228*	-0.194*
	(0.120)	(0.127)	(0.112)	(0.127)	(0.093)
R-Squared	0.188	0.2	0.183	0.168	0.214
Marketed	1.216	1.457	1.547*	1.553*	1.279*
	(0.862)	(0.905)	(0.756)	(0.875)	(0.648)
R-Squared	0.081	0.071	0.057	0.039	0.045

Standard errors of coefficients are presented in parentheses in top half of table.
LM(1) is Breusch-Godfrey (Lagrange Multiplier test for first order autocorrelation). The test statistic is specified as Chi-Squared with 1 degree of freedom and p-values are presented in parentheses below the test statistic.
B-P is Breusch-Pagan test for heteroscedasticity and p-values are presented in parentheses below the test statistic.
F-test for the hypothesis that all of the coefficients (excluding the constant) are zero with p-values in parentheses.
*Indicates significance at the 10% level.
**Indicates significance at the 5% level.
*** Indicates significance at the 1% level.
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price discovery. Again, *COF* surprises account for twice as much of the weekly price variation in these markets compared with Colorado and Iowa/Minnesota markets.

Consistent Bull and Bear Market Pricing Signals over the 2004 to 2013 versus the 2014 to 2020 Period

Tables 2.7 and 2.8 show surprise and price correlations over the 2004 to 2013 and 2014 to 2020 periods, respectively. The most noticeable difference is that the correlation between placement and marketings surprises and all LMR cash prices has doubled over the more recent 2014 to 2020 period. LMR cash markets are now more responsive than ever to unambiguous price signals contained in *COF*

reports. Our regression model results presented in Tables 2.9 and 2.10 confirm this finding. Turning first to Table 2.9, our results highlight the important price discovery role played by Texas/Oklahoma/New Mexico and Kansas markets over this earlier period. R-squared values and F-tests are much larger for these two markets compared with the others and, in particular, the Colorado and Iowa/Minnesota markets. In contrast, the 2014 to 2020 regression results presented in Table 2.10 with respect to R-squared values show that prices responsiveness and discovery is now more equally shared across LMR markets. However, a word of caution is in order as the 2014 to 2020 results presented in Table 2.10 are only based on 18 observations and are subject to high levels of multicollinearity. This issue is reflected in the lack of precision of the coefficient estimates (high standard errors) and insignificant F-tests.

Implications for the Fed Cattle Market

Because the fed cattle market has become a highly concentrated market characterized by a relatively low volume of negotiated cash transactions, questions about the efficiency and accuracy of prices ought to be taken very seriously: such markets are undoubtedly susceptible to price discovery problems, including intentional manipulation. Evidence of such problems in the fed cattle market is sparse, however, despite intense investigation by numerous researchers using varied data and methodology over many years. Results presented here are broadly consistent with those previous findings. Analysis of fed cattle cash price response to unanticipated information in the monthly *COF* report suggest that all regions respond to such information in a manner consistent with active price discovery – that is, prices adjust quickly and consistent with the expectations of economic theory in response to unanticipated information.

Much of the present concern over fed cattle price discovery has focused on the Texas/Oklahoma/New Mexico reporting region because of the relative thinness of negotiated trade in that region in recent years (see Figure 2.4). The analysis presented here suggests that price discovery in this region has actually been among the most active of any of the reporting regions over the period of this study.

Much of the present concern over fed cattle price discovery has focused on the Texas/Oklahoma/New Mexico reporting region because of the relative thinness of negotiated trade in that region in recent years (see Figure 2.4). The analysis presented here suggests that price discovery in this region has actually been among the most active of any of the reporting regions over the period of this study. While negotiated prices in the region have become less responsive to unanticipated information since 2014, the (admittedly limited) data on response to information shocks since then does not suggest that the price discovery process

in Texas/Oklahoma/New Mexico is notably different than in any other region, including regions (e.g., Nebraska, Iowa/Minnesota) with much higher proportions of negotiated transactions.

Summary and Conclusions

A clear understanding of price discovery processes and mechanisms in the fed cattle market is important because a number of policy interventions have been proposed with the specified intent of improving price discovery. Without question, the fed cattle market has thinned rather dramatically over the past decade or so in terms of negotiated spot market transactions as a share of total transactions. While this situation raises legitimate concerns – particularly in light of formula transactions that rely on negotiated trades for price benchmarks – there is little evidence that the effectiveness of price discovery in the fed cattle market has been compromised, either by the thinning of negotiated trade or by market concentration in the meatpacking sector.

The fact that the thin and highly-concentrated fed cattle market does not exhibit clear signs of non-competitive pricing behavior does not suggest that market participants should have no concerns about price discovery. The reliance of formula prices on negotiated prices is reason enough to pay particular attention to the manner in which prices are established in the market. Negotiated prices not only reveal information about supply and demand fundamentals in the fed cattle market; they also contribute substantially to formula prices that control two-thirds or more of fed cattle trades. For both of these reasons, negotiated trades in the fed cattle market have some characteristics of a public good; therefore, market participants have a strong interest in ensuring that negotiated trades occur in sufficient quantity to fulfill this public good role (Koontz and Purcell, 1997). A number of complicated issues arise with respect to how this interest is best addressed. What volume of negotiated trades is necessary for efficient price discovery? Theory and empirical work, as reviewed in this volume, suggest that the figure may be quite small – smaller than market participants (at least on the selling side) are apparently comfortable with. If interventions to increase negotiated trade volume are undertaken, what form of intervention is appropriate? Market-based incentives or regulatory decree? In either case, it may well be that intervention disrupts the organic development of market institutions (both formal and informal) that are appropriate and effective for the circumstances of this particular market. After all, formula pricing has not been imposed on the fed cattle market by force: packers and feeders have mutually decided that it presents an effective and efficient way for them to transact routine business. It may well be that in seeking to preserve price discovery by familiar means, beneficial market innovations may be undermined, with unforeseen consequences for both individual market participants and for the sector as a whole.

References

Adammer, P., M. T. Bohl, and C. Gross. 2016. "Price Discovery in Thinly Traded Futures Markets: How This is Too Thin?" *Journal of Futures Markets* 36:851-869.

Adjemian, M. K. 2012. Quantifying the WASDE announcement effect. *American Journal of Agricultural Economics*, *94*(1), 238-256.

Adjemian, M. K., B. W. Brorsen, W. Hahn, T. L. Saitone, and R. J. Sexton. 2016. *Thinning Markets in U.S. Agriculture*, EIB-148, U.S. Department of Agriculture, Economic Research Service.

Adjemian, M. K., T. L. Saitone, and R. J. Sexton. 2016. "A Framework to Analyze the Performance of Thinly Traded Agricultural Commodity Markets." *American Journal of Agricultural Economics* 98(2): 581-596.

Anderson, J. D., J. N. Trapp, and R. A. Fleming. 2003. "Estimated Impact of Non-Price Coordination of Fed Cattle Purchases on Meat Packer Processing Costs." *Journal of Agribusiness* 21: 183-196.

Anderson, J.D., Hudson D., Harri A., and Turner S. 2007. "A New Taxonomy of Thin Markets." Paper presented at the Southern Agricultural Economics Association Meeting, February 4-7.

Bailey, D. and B. W. Brorsen. 1987. "Price Asymmetry in Spatial Fed Cattle Markets." *Western Journal of Agricultural Economics* 14(2): 246-252.

Brorsen, B. W., J. R. Fain, and J. G. Maples. 2018. "Alternative Policy Responses to Increased Use of Formula Pricing." *Journal of Agricultural and Food Industrial Organization* 16: 1-11.

Coffey, B. K., D. L. Pendell, and G. T. Tonsor. 2019. "Contemporaneous and Lagged Causal Relationships among Negotiated Live Cattle Cash Markets." *Journal of Agricultural and Applied Economics* 51, 1: 182-198.

Crespi, J. M., T. L. Saitone, and R. J. Sexton. 2012. "Competition in U.S. Farm Product Markets: Do Long-Run Incentives Trump Short-Run Market Power?" *Applied Economic Perspectives and Policy* 34: 669-695.

Fama, E. 1970. "Efficient Capital Markets: A Review of Theory and Empirical Work." *Journal of Finance* 25(2), 383-417.

Garcia, P., S. H. Irwin, R. M. Leuthold, and L. Yang. 1997. "The Value of Public Information in Commodity Futures Markets." *Journal of Economic Behavior and Organization* 32: 559-570.

Goodwin B. and M. Holt. 1999. "Price Transmission and Asymmetric Adjustment in the U.S. Beef Sector." *American Journal of Agricultural Economics* 81: 630-637.

Grunewald, O., McNulty M.S., and A.W. Biere. (1993). Live Cattle Futures Response to "Cattle on Feed" Reports. *American Journal of Agricultural Economics*, *75*(1), 131-137.

Isengildina-Massa, O., Irwin, S. H., Good, D. L., & Gomez, J. K. 2008. The impact of WASDE reports on implied volatility in corn and soybean markets. *Agribusiness*, *24*, 473-490.

Isengildina-Massa, O., Irwin, S. H., Good, D. L., and Gomez, J. K. 2008. The impact of situation and outlook information in corn and soybean futures markets: Evidence from WASDE reports. *Journal of Agricultural and Applied Economics*, *40*. 89-103.

Janzen, J. P. and M. K. Adjemian. 2017. "Estimating the Location of World Wheat Price Discovery." *American Journal of Agricultural Economics* 99(5): 1188-1207.

Karali, B., O. Isengildina-Massa, S. H. Irwin, M. K. Adjemian, and R. Johannson. 2019. "Are USDA Reports Still News to Changing Crop Markets?" *Food Policy* 84: 66-76.

Koontz, S. R. and W. D. Purcell. 1997. "Price Discovery and the Future of the Livestock Sector." In *Price Discovery in Concentrated Livestock Markets: Issues, Answers, Future Directions*, ed. W. Purcell. Research Institute on Livestock Pricing, Blacksburg, Virginia.

MacDonald, J. M. and M. E. Ollinger. 2005. "Technology, Labor Wars, and Producer Dynamics: Explaining Consolidation in Beefpacking." *American Journal of Agricultural Economics* 87: 1020-1033.

Mathews, K. H., B. W. Brorsen, W. F. Hahn, C. Arnade, and E. Dohlman. 2015. *Mandatory Price Reporting, Market Efficiency, and Price Discovery in Livestock Markets*, LDPM-254-01, U.S. Department of Agriculture, Economic Research Service.

McKenzie, A. M. 2008. "Pre-Harvest Price Expectations for Corn: The Information Content of USDA Reports and New Crop Futures." *American Journal of Agricultural Economics* 90: 351-366.

Morrison Paul, C. J. 2001. "Market and Cost Structure in the U.S. Beef Packing Industry: A Plant-Level Analysis." *American Journal of Agricultural Economics* 83: 64-76.

Muth, M. K., J. Del Roccili, M. Asher, J. Atwood, G. Brester, S. C. Cates, M. C. Coglaiti, S. A. Karns, S. Koontz, J. Lawrence, Y. Liu, J. Marsh, B. Martin, J. Schroeder, J. L. Taylor, and C. L. Viator. 2007. *GIPSA Livestock and Meat Marketing Study, Volume 3: Fed Cattle and Beef Industries*. Research Triangle Park, NC: RTI International for USDA Grain Inspection, Packers and Stockyards Administration.

Schroeder, T. C., C. E. Ward, J. Mintert, and D. S. Peel. 1998. "Beef Industry Price Discovery: A Look Ahead." Research Bulletin 1-98. Research Institute on Livestock Pricing. Department of Agricultural and Applied Economics, Blacksburg, VA: March.

Sumner, D. A. and R. A. E. Mueller. 1989. "Are Harvest Forecasts News? USDA Announcements and Futures Market Reactions." *American Journal of Agricultural Economics* 71: 1-8.

Tomek, W. G. 1980. "Price Behavior on a Declining Terminal Market." *American Journal of Agricultural Economics* 62(3): 434-444.

Tomek, W. G. and H. M. Kaiser. 2014. *Agricultural Product Prices*, 5th Ed. Ithaca, NY: Cornell University Press.

U.S. Department of Agriculture, Agricultural Marketing Service. 2020. *Packers and Stockyards Division, Annual Report 2019*. Washington, DC: August. https://www.ams.usda.gov/sites/default/files/media/PSDAnnualReport2019.pdf. Accessed on April 1, 2021.

Virtue, G. O. 1920. "The Meat-Packing Investigation." *The Quarterly Journal of Economics* 34(4): 626-685.

Ward, C. E. 1988. *Meatpacking Competition and Pricing*. Blacksburg, VA: Research Institute on Livestock Pricing, July.

Ward, C. E. 1997. "Important and Ignored Messages from the Packers and Stockyards Program's Concentration Research Study." In *Price Discovery in Concentrated Livestock Markets: Issues, Answers, Future Directions*, ed. W. Purcell. Research Institute on Livestock Pricing, Blacksburg, Virginia.

Ward, C. E. 1999. *Packer Concentration, Captive Supplies and Their Impact: A Review*. Proceedings of the Regional Research Committee NE-165, Washington, DC, February 25-26, 1999. Sponsored by the USDA Economic Research Service and The Grain Inspection, Packers and Stockyard Administration and the Food Marketing Policy Center, University of Connecticut.

Ward, C. E. and T. C. Schroeder. 2004. "Understanding Livestock Pricing Issues." Oklahoma Cooperative Extension Service AGEC-551. Oklahoma State University, Division of Agricultural Sciences and Natural Resources, Stillwater, OK.

Ward, C. E., M. K. Vestal, and Y. Lee. 2014. "Relationships between Alternative Marketing Arrangement Prices for Fed Cattle and Hogs, 2001-2013." Selected Paper presented at the 2014 Western Agricultural Economics Association Annual Meeting. Colorado Springs, CO: June 22-24.

Chapter 3

How Market Institutions, Risks, and Agent Incentives Affect Price Discovery: Fed Cattle Market Implications

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Introduction

Concerns continue to grow regarding declining negotiated cash trade volumes and related impacts on fed cattle market price discovery. Various policy proposals to address these concerns center on the premise that mandating increased volumes of negotiated cash trade will fix the fed cattle market environment and price discovery will be improved (Brown, 2021; Nepveux, 2021). It is important to understand what price discovery is, and how various factors such as market institutions, risks faced by buyers and sellers, and related market agent incentives impact price discovery and resulting price levels (also called price determination). Such knowledge will improve our understanding of the potential success of policy proposals aimed at addressing price discovery concerns in fed cattle markets.

Price Discovery versus Price Determination

As noted in Chapter 2, price discovery refers to the process by which a buyer and seller arrive at a price for a specific transaction. Negotiations that include all of the buyer's bid prices and the seller's asks or offer prices are part of the price discovery process. Price discovery directly relates to the mechanics by which individual transaction prices (and other terms of trade) occur rather than general market price levels.

Price determination refers to the general price level that prevails after a number of individual transaction prices occur. Once the buyer and seller come to agreement on the terms of trade, including price, that individual transaction price

Note: Research referenced in this chapter using experimental economics methods by the authors was primarily supported by the Paul Lowham Research Fund. All opinions expressed here are those of the authors and not the funding source.

becomes a potential piece of information signaling what those particular cattle were worth. Generally, an average of the individual fed cattle transactions prices during a specified time period, for a particular region, is reported by the United States Department of Agriculture Agricultural Marketing Service (USDA-AMS). Negotiated cash transactions are reported twice daily to AMS, and price information from these transactions appears in various reports. Transaction prices for other marketing methods are reported after the cattle are delivered to the packers, and this price information may be based on market conditions one to two weeks earlier (Schroeder, Tonsor, and Coffey, 2019). These publicly available prices represent price determination information for the fed cattle market for the reporting period.

Factors Affecting Price Discovery and Price Determination

What factors affect price discovery? Anything that impacts buyers' bids, and/or sellers' offers during bargaining affects price discovery. Economic theory and research indicate a number of factors influence price discovery in fed cattle markets, including knowledge of supply and demand, trading institutions, risks traders face, risk preferences of traders, and expectations of value formed via multiple sources of old and current market information.

Supply and Demand

Individual buyers and sellers adjust to supply and demand factors at the time they negotiate price. For example, if feedlots have a higher number of cattle available, the supply of cattle has increased. This in turn means an individual buyer representing a packer could bid lower prices and still attract cattle. A seller (feedlot) would likely accept a lower price in this situation in order to sell cattle currently nearing slaughter weight. Alternatively, if demand for beef strengthened and resulting boxed beef prices were increased, buyers would need to increase bid prices to attract cattle into packing plants, and sellers would likely only accept a higher sale price during bargaining. Thus, price discovery adjusts to, and reflects, supply and demand conditions. As a result, the forces of supply and demand for a particular product or commodity generally drive price determination or price levels (Tomek and Kaiser, 2014).

Trading Institutions

Trading institutions are the mechanisms, including both formal and informal rules defining how agents interact, through which buyers and sellers discover transaction prices and other terms of trade (Nagler *et al.*, 2015; Tomek and Kaiser, 2014; Davidson and Weersink, 1998). The three most relevant trading institutions for cattle markets are Double Auction, English Auction, and Private Negotiation.

The double auction is the trading institution used in live (fed) and feeder cattle futures transactions. Buyers start at low bid prices and sellers start at high-

er ask or offer prices. During haggling, buyers raise their bid prices and sellers lower their offer prices until a buyer's bid equals a seller's offer (Menkhaus, Phillips, and Bastian, 2003). During bargaining, multiple buyers and sellers may be haggling for the same futures contract or set of contracts. The double-auction institution is information rich since all buyers and sellers can see each other's bids and offers during bargaining. This information allows agents to know what level successful bids and offers need to be. Discovery of transaction price occurs relatively quickly in this trading institution.

The English auction is a trading institution commonly used in livestock cash market transactions. Its use has declined significantly for fed cattle, but it remains relatively prominent in feeder cattle markets. Sellers bring their cattle to the auction site, and a number of cattle are brought into a sale ring around which buyers and sellers are typically seated. Some information about the cattle is given prior to the sale, and then an auctioneer calls out a beginning bid level. Buyers signal to the auctioneer their willingness to pay higher prices, as the auctioneer indicates higher bid levels. This continues until no buyer is willing to pay a higher bid price (Menkhaus, Phillips, and Bastian, 2003). The buyer agreeing to the highest bid price purchases the cattle as long as the seller agrees to accept this price. Buyers are competing against each other to "win" the cattle with the highest bid price they are willing to pay. Sellers are passive and either accept or reject the winning bid for their cattle. Since buyers and sellers at the sale ring hear the bid prices, the English auction also is a relatively information-rich trading institution.

Private negotiation is a less formal trading institution where one buyer and one seller negotiate privately. During negotiation, the buyer starts at a low bid level and increases that level while the seller starts at a high offer price and reduces that level (Menkhaus, Phillips and Bastian, 2003). Trade occurs when the buyer and seller agree on price and any other relevant terms of trade. As there are no other buyers or sellers involved, the only information available during bargaining is the bid and offer prices given by the buyer and seller pair. This institution is less information rich when compared to auctions as other buyers' bids (as in the case of the double and English auctions) and other sellers' offers (as in the case of double auction) are not available to the two traders while discovering price.

Research conducted at the University of Wyoming used experimental economics methods to test whether differences in price discovery and price levels occur in these trading institutions (Menkhaus, Phillips, and Bastian, 2003). The laboratory setting allows researchers to control the market environment including supply and demand conditions, trading institution, and number of buyers and sellers transacting in the market (Friedman and Sunder, 1994; Roth, 2015). These experiments rely on induced-value theory and pay participants based on their trading behavior to create economic incentives similar to what is seen in cattle markets (Friedman and Sunder, 1994; Roth, 2015). These experiments are used because data for privately negotiated transactions in cattle markets are usually not available. Additionally, econometric analyses of transactions may suffer from dy-

namic supply and demand conditions that affect variability of price levels, making it difficult to determine the impact of the trading institution alone.[1]

Since the underlying supply and demand conditions are known and constant across the trading institutions in the laboratory market experiments, the research compared market outcomes to predicted competitive equilibrium price levels (Menkhaus, Phillips, and Bastian, 2003). The resulting price levels were nearly 17% higher in English auction and 4% higher in double auction than the predicted equilibrium, but price determination for private negotiation was nearly 10% below the competitive equilibrium price (Figure 3.1).

The underlying supply and demand conditions as well as number of buyers and sellers were exactly the same across each institution in these markets. Thus, no arguments of market structure or concentration giving buyers an advantage in private negotiation could be made in these experiments. Trading institution alone was the only difference across each set of experiments.

Why did English auction result in a price that was higher and more favorable to sellers while private negotiation resulted in price being lower and more favorable to buyers? The English auction institution facilitates prices being driven up as buyers must compete against each other to purchase product while sellers are passive during bargaining. The double auction has lower price levels than the

[1] These results come from laboratory market studies. Some have criticized that subject pools used in such experiments do not behave the same as agricultural producers. Nagler *et al*. (2013) test behavior in laboratory market experiments across students and agricultural professionals. They find the same treatment effects across the two subject pools. Bastian (2019) examines bargaining behavior across market experiments using students and agricultural professionals and generally finds no difference across the bargaining strategy variables tested. Further, Frechette (2015) examines the broader experimental literature and concludes that results are generally consistent regardless of subjects used, lending further support to these experimental results.

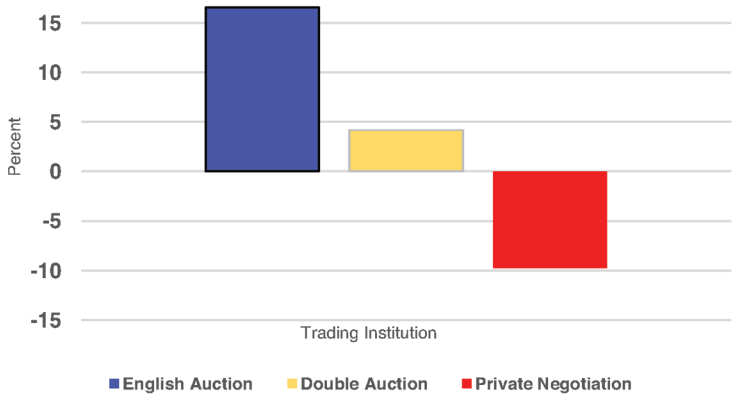


Figure 3.1. Percent Difference in Price Level from Competitive Equilibrium by Trading Institution.

English auction, but very near the competitive equilibrium. The only difference is that sellers are also competing with other sellers for buyers' bids in the double auction. The simple addition of sellers competing amongst each other while simultaneously buyers are competing amongst each other leads to lower transactions prices that are closer to the predicted value than in the English auction. This result also is partially driven by individual bids and offers being known to all traders during price discovery.

Private negotiation, which is the dominant trading institution found in fed cattle markets, results in much lower price levels than auction markets. Given the low-price level in private negotiation, can we conclude the price discovery process is broken in private negotiation? No. First, it is important to understand that a major difference in this institution is the lack of buyers competing against buyers and/or sellers competing against sellers during bargaining. Additionally, an individual buyer and individual seller don't have the benefit of seeing other bids and offers during price discovery. Thus, individual bargaining behavior may impact price discovery and resulting price determination in private negotiation, which is likely mitigated by agent competition and bid/offer information in the auction institutions. One factor affecting bargaining behavior during price discovery in private negotiation relates to actual or perceived risks faced by participants in the market. Research indicates that advance production risk, matching risk, and negotiation failure risk greatly impact trader incentives and resulting behavior when transactions are privately negotiated (Menkhaus *et al.*, 2007; Sabasi *et al.*, 2013; Jones Ritten *et al.*, 2020).

Risks and Agent Incentives

Advance Production Risk

Sellers in agricultural markets, including fed cattle markets, generally make decisions to produce inventory or product prior to sale (Nagler *et al.*, 2015; Menkhaus *et al.*, 2003). When sellers produce goods in advance of sale, this requires sellers to incur production costs prior to any promise of revenue. Thus, sellers are at risk of losing some or all of their production costs if prices fall below cost of production, or when sellers fail to reach an agreement with any buyer. This risk of losing some or all of the production cost is called advance production risk or inventory loss risk (Sabasi *et al.*, 2013; Menkhaus *et al.*, 2007).

Research finds that advance production risk affects price discovery and price levels in privately negotiated markets (Menkhaus *et al.*, 2003; Menkhaus *et al.*, 2007). Sellers facing this risk are more likely to make concessions during bargaining and accept lower trade prices rather than risk losing all of their production cost for a product. Moreover, buyers knowing sellers face this risk are less likely to offer high bid prices given sellers signal they are willing to accept lower prices (Menkhaus *et al.*, 2007). Research compares prices in private negotiation markets where sellers only produce what they agreed to sell (i.e., produce only what they have forward sold) to sellers producing inventory prior to negotiating price

(Menkhaus *et al.*, 2003). They found price levels were near equilibrium when inventory was sold prior to incurring production cost (2.75% above equilibrium) and nearly 10% below the competitive equilibrium when inventory was produced in advance (Figure 3.2).[2]

Matching Risk

This advance production risk is coupled with what is called matching risk (Menkhaus *et al.*, 2007). This is the risk of being matched with someone in the market that has already traded and feels less pressure to trade compared to their trading partner. It also encompasses trading with someone who is better at bargaining. For example, if you as a seller are paired with a buyer who has already purchased cattle and is less interested in your cattle, that buyer may bid less aggressively, making it harder to reach agreement on price. This can also occur if a buyer meets with a seller who has already sold what they planned to that period. This risk creates a potential cost for the trader to try and find someone else interested in trading. Research indicates that what happens with traders affected by this risk is they become more willing to make concessions when haggling over price to ensure a trade occurs rather than risk being matched with someone they are unable to trade with (Menkhaus *et al.*, 2007).

Research investigating the impact of increased and decreased opportunities to match with a trade partner finds matching risk can have a significant impact

[2] It should be noted that other research using the same supply and demand conditions find similar tendencies for private negotiation with advance production, but the magnitude of difference is somewhat smaller. Rahman *et al.* (2019) find price levels are 6.55% below the competitive price with private negotiation and advance production.

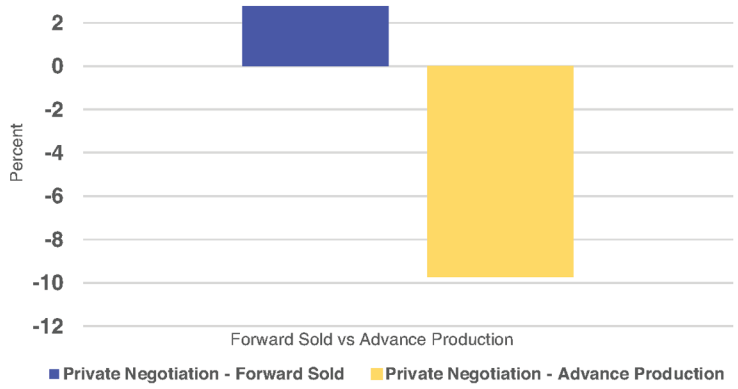


Figure 3.2. Percent Difference in Price Level Given Advance Production Risk.

on price discovery and price levels (Menkhaus *et al.*, 2007). The research compares the following matching scenarios: 1) All traders in the market are able to match three times with different trade partners (used previously by Menkhaus *et al.*, 2003); 2) All traders in the market are able to match five times with trade partners; 3) Concentrating the market by cutting the number of buyers in half but doubling each of the buyers demand schedules and having five potential opportunities to match per trading period; and, 4) Concentrating the market by reducing the number of sellers by half but doubling supply schedules and having five matching opportunities per trading period. By doubling the demand (buyers) or supply (sellers) schedules, the underlying supply and demand remained constant and the predicted equilibrium was consistent across treatments (Menkhaus *et al.*, 2007). In this study, sellers also faced advance production risk.

Results show that increasing the number of matches from three to five with all trade partners, increased prices from about 9% under the competitive price to only 3% under the competitive price (Figure 3.3). By concentrating the number of buyers, doubling the demand of each buyer, and forcing the market to have five matches, matching risk had a large impact on price discovery and price level. With these big buyers, half the sellers were not matched with a buyer during each matching opportunity (there were two buyers as opposed to four sellers). The simple change of having fewer buyers relative to sellers increased matching risk. During this experiment even though there was a chance to be matched, half the sellers were randomly matched with buyers while half were not matched with a buyer during each matching opportunity. Unmatched sellers were forced to wait for an opportunity to sell, and once matched, these sellers faced the risk that the buyer had the supply needed. As a result, sellers were willing to make concessions

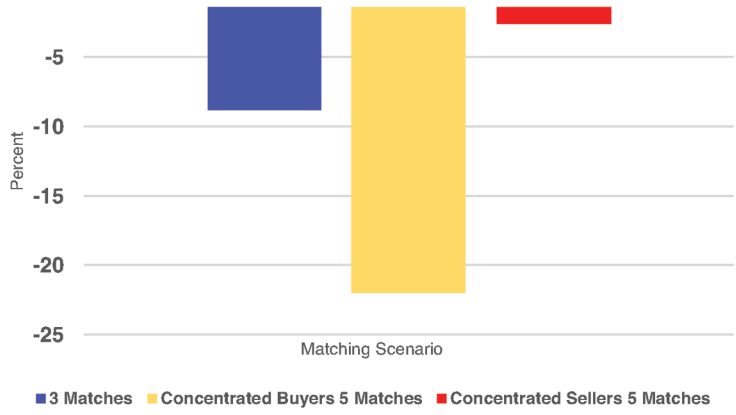


Figure 3.3. Percent Difference in Price Level Given Matching Risk.

in bargaining to reduce the chance they would be stuck with unsold inventory. Moreover, buyers experiencing less aggressive offer prices and bigger concessions from sellers, bid lower prices during bargaining. Average price levels were 22% below the competitive equilibrium in this scenario (Figure 3.3). When sellers were concentrated, buyers faced the same random chance of not being matched with a seller, as was the case in the concentrated buyer scenario. That is, half of the buyers were waiting to bargain with a seller during a matching opportunity while the other buyers bargained to purchase inventory. Thus, unmatched buyers faced the risk of less inventory being available for purchase once they had an opportunity to match with a seller. Sellers were able to increase their offer prices and buyers bid higher prices when matched with sellers to ensure product purchases. Price levels in this concentrated seller scenario were only one percent below, and not statistically different from, the competitive equilibrium price (Menkhaus *et al.*, 2007). We don't see the same magnitude of price difference between the concentrated scenarios because sellers still face and respond to advance production risk. Thus, the simple act of not being able to meet with a trade partner can make a significant difference in price discovery and resulting price levels.

Negotiation Failure Risk

Negotiation failure risk is the risk of not coming to agreement. Even though time and effort are spent bargaining, there is a risk that no price or terms of trade are agreed upon (Jones Ritten *et al.*, 2020). If such a risk is realized, the persons involved must search for someone else to trade with. At that point, valuable time has been lost, increasing the chance that the next trading partner has either acquired or sold what they need to, i.e., matching risk increases. In the case of the fed cattle market, this realized risk could result in sellers holding onto cattle longer while incurring more costs until they find a willing buyer. For buyers, it could mean not having the amount of cattle desired for the slaughter plant at a given time.

Focus group results in Wyoming found that producers generally felt they had to accept a buyer's terms rather than risk a failed negotiation (Bastian *et al.*, 2018). At the time of this writing, empirical research indicating the magnitude of impact from negotiation failure on commodity prices was unavailable, but it is expected that negotiation failure exacerbates the impact of both advance production and matching risks.

Given the nature of these risks (advance production, matching, and negotiation failure) research suggests sellers are more likely to be at a bargaining disadvantage than buyers when private negotiation is the trading institution (Bastian, 2019; Menkhaus *et al.*, 2003; Menkhaus *et al.*, 2007). Moreover, recent empirical research related to producers and bargaining outcomes in other commodity markets supports these findings (Courtois and Subervie, 2015; Shokoohi, Chizari, and Asgari, 2019). Price discovery within this institution, where these risks are present, generally results in price levels below the predicted equilibrium even with the same supply, demand, and number of firms.

Risk Preferences

Individual risk preferences affect bargaining behavior and resulting price discovery. Those agents who are more risk averse (buyers or sellers) tend to bargain for less advantageous transaction prices, leading to low individual earnings (Muthoo, 1999; Krishna, 2010). Risk averse buyers involved in auctions or private negotiation tend to have higher bids to reduce the chance of not purchasing product, and risk averse sellers tend to give lower offers or asking prices to ensure a successful sale. Jones Ritten *et al.* (2020) tested risk preferences across groups that first participate in a privately negotiated market experiment versus those that do not. The authors confirm previous findings that higher risk aversion resulted in lower earnings for market participants. Additionally, those who participated as a seller in a market experiment had significantly higher loss aversion compared to buyers, and those with higher loss aversion tended to bargain less aggressively and earned significantly less in the market.

Market Information

The above factors: trading institution, various risks, and risk preferences all interact with expectations of value when buyers and sellers enter into a transaction. One factor affecting expectation of value is product quality. Quality in fed cattle markets is generally measured in terms of yield and quality grades. Expectation of animal value generally increases as perceived quality increases. Increased quality, in turn, alters the levels at which bids and offers and resulting transaction prices occur (Jones *et al.*, 1992; Ward *et al.*, 1996; Ward, 1992).

Market information helps market agents form expectations about animal value prior to negotiating price. Research indicates that several sources of market price information affect price discovery and price determination for fed cattle. These market price sources include negotiated cash prices, boxed beef prices, and live cattle futures prices (Jones *et al.*, 1992; Matthews *et al.*, 2015; Ward *et al.*, 1996; Ward, 1992; Ward, 1981).

It is important to understand how these sources of market information affect price discovery. Reported prices are based on transactions that happened from one day to one or two weeks prior (for alternative marketing methods) when traders enter into negotiation, which give traders a general idea of price level. This information is tempered by any knowledge of other factors that could be affecting value of the animals available for sale. For example, let's say you expect the number of cattle to come out of feed yards this week is going to be down compared to last week. This signals that current supplies could be less than last week, so bids and offers should reflect that current information or expectation. Perhaps recent news indicates an increase in demand for beef in the near future, which signals to traders that current demand conditions are changing compared to last week. Thus, the price discovery process utilizes past price information, but traders also add any other current knowledge or expectations to their bids and offers.

Market traders are continually updating their information and expectations as they enter into negotiations. Together with the factors discussed previously, market information plus any current supply and demand information affect price discovery. Different individuals with different risks and risk preferences are using that information, weighting its importance, forming expectations and making bids and offers to discover price. Thus, the price discovery process becomes dynamic and constantly incorporates new and updated information while being filtered through individual traders' perceptions of risk, quality, and animal value during bargaining.

Trade Volume and Price Discovery

How does trade volume impact the price discovery process? Let's start with the idea of a single transaction between a buyer and seller. Since the agents may face different risks and risk preferences, and weigh market information differently, bids and prices could result in a price that may be different than what current supply and demand conditions indicate. The difference between the transacted price versus what supply and demand conditions indicate could be large or small. As other transactions occur, the probability that prices are incorporating current supply and demand information more appropriately should increase. Thus, agricultural economists view more transactions as improving the accuracy of price determination and reported information about price levels. Tomek (1980, p. 435) states, "If ... the average of transaction price is an estimate of the true equilibrium price, the variance of the mean of transaction prices decreases as the number of transactions increases...". Thus, increased trade volume should improve the chance that an average reported price is accurate. Moreover, with more transactions, price determination generally adjusts more quickly given current supply and demand conditions, i.e., is more efficient (Fama, 1970; Janzen and Adjemian, 2017).

Given the above discussion, it is expected that volume affects the accuracy of past market price information used in the price discovery process. Research has found efficient price discovery and good market outcomes can occur with relatively low volumes of transactions or trade across various agricultural products and may change with differing supply and demand conditions (Peel *et al.*, 2020; Adjemian *et al.*, 2016; Adjemian, Saitone, and Sexton, 2016; Tomek, 1980).

Fed Cattle Market Implications

Factors motivating current concerns and the resulting calls for policy related to price discovery are understandable. Increased use of Alternative Marketing Agreements (AMAs), which rely primarily on previously reported negotiated cash prices, have reduced the volume of cattle being traded in cash or spot transactions (Peel *et al.*, 2020). Moreover, private negotiation is the primary trading in-

stitution through which negotiated cash prices are discovered for fed cattle.[3] Thus, sellers (feedlots) transacting fed cattle in cash markets face advance production, matching, and negotiation failure risks. It is likely that increased use of AMAs exacerbates these risks for those feedlots only selling cattle via negotiated cash trade, and puts them at a relative bargaining disadvantage (Sabasi *et al.*, 2013).

A potential outcome of a policy mandating increased cash trade volume is that buyers will transact more cash-traded cattle, thereby reducing matching and negotiation failure risks for those feedlots (sellers) relying solely on cash trade.[4] Hence, policy proposals aimed at reducing the use of AMAs and mandating increased cash trade volumes seemingly address a primary issue for sellers relying on negotiated cash trades. The current expectations of fed cattle sellers seem to be that mandating increased negotiated cash trade volumes will improve price discovery and potentially increase price levels.

A primary question is whether policies mandating increased levels of negotiated cash trade volumes fully address risks and incentives for all agents trading in fed cattle markets, and thus making expectations of improved price discovery and price determination a realization. The reality is that feedlots will still face advance production risk, and while potentially reduced, they will still face some level of matching and negotiation failure risk even with a policy mandating increased negotiated cash trade volumes in place.

Research at the University of Wyoming tested scenarios where 25%, 50%, and 75% of the traders transacted produced inventory in an initial bargaining period, while those not allowed to trade in the first period (75%, 50%, 25%, of traders, respectively) waited for a second bargaining opportunity in which all market participants could trade (Sabasi *et al.*, 2013). The first bargaining period mimicked incentives faced by buyers and sellers in a market environment with the existence of AMAs. These AMAs scenarios were compared to a base scenario of no pre-committed trade (Sabasi *et al.*, 2013). Results indicate average prices were generally slightly higher in the AMAs bargaining period versus the second bargaining period mimicking the spot market, but they were generally not statistically different from each other. The researchers then compared agents not allowed to trade in the first period versus those that did. They found that generally sellers not allowed to trade in the first period negotiated for slightly lower prices compared to those that did, but seller price levels were not statistically different across the two groups. So, sellers not involved in the first bargaining period (AMAs) seemed to be somewhat disadvantaged, but the non-existence of AMAs in the base treat-

[3] At the time of this writing the authors are not aware of any English auctions still being used to sell fed cattle. If any do exist, it is expected that the volume sold via auction is very small relative to the total volume being traded in fed cattle markets. This decline in English auction has likely occurred due to increased transactions costs and risks related to both quantity and quality variability for buyers relative to current market institutions being used.

[4] The realization of this outcome depends on the inability of buyers to adapt current AMA purchasing behavior to meet regulatory agent definitions of "negotiated trade" (Peel *et al.*, 2020). It seems feasible that buyers could potentially record a small amount of bid and offer communication related to last week's price, while using the structure of current AMA contracts with sellers, thereby meeting the regulatory definition but not fully meeting the intended policy objective. If this occurs, the likelihood of any change in current market outcomes is minimal.

ment did not result in significantly higher price levels for sellers. This result is very similar to empirical analyses that have examined the impact of AMAs on spot prices (Key, 2011; Muth *et al.*, 2008; Schroeder *et al.*, 1993; Vukina, Shin, and Zheng, 2009; Ward, Koontz, and Schroeder, 1998).

Why weren't price levels higher in the non-AMAs scenario? First, it is important to remember that supply and demand conditions generally drive price levels, and the supply and demand levels were the same across all scenarios. Second, sellers still faced advance production risk and matching risks associated with bargaining ability of buyers during the first bargaining period. Generally, AMAs reduce the advance production risk for sellers and matching risk for both buyers and sellers engaged in those agreements. These reductions in risk create significant incentives for buyers and sellers to be involved with AMAs. A probable outcome of mandating increased negotiated cash trade is that some feedlots may have improved bargaining outcomes because of reduced matching risk, but those feedlots who have reduced sales opportunities via AMAs due to the policy will have worse outcomes. Thus, it seems unlikely that mandating increased volumes of negotiated trade will achieve desired expectations of increased price levels overall.

Summary and Conclusions

Recent policy proposals to address price discovery concerns in fed cattle markets assume that mandating increased volumes of negotiated cash trade will improve the fed cattle market environment and price discovery (Brown, 2021; Nepveux, 2021). It is important to understand that a number of factors impact agent incentives when transacting fed cattle and resulting price discovery. Private negotiation is the dominant trading institution in fed cattle markets, and as a result, advance production, matching, and negotiation failure risks greatly impact bargaining outcomes. Policies focused on reducing AMAs and increasing negotiated cash trade volume do not fully address these risks and resulting incentives of agents involved in fed cattle markets. Some feedlots who sell fed cattle via negotiated cash trade may have reduced matching and negotiation failure risk as a result, but it is likely that economic surplus will be redistributed from agents (both buyers and sellers) utilizing AMAs to those benefitting from the policy.

Trade volume impacts the potential accuracy of past price information used in price discovery. Research varies regarding necessary threshold levels of trade volume needed for improved price discovery, and as a result, the dynamic process of price discovery likely will be marginally impacted by policies aimed at increasing negotiated cash trades. Moreover, as price determination is generally driven by supply and demand conditions, expectations that policies aimed at increasing negotiated cash trade will significantly raise price levels are generally not supported by economic theory or numerous research findings.

An additional issue is that such policies may have a negative impact on total economic surpluses generated by current fed cattle markets. AMAs reward quality, create improved production and processing efficiencies, reduce production costs per head through better plant utilization and spreading of fixed costs, and re-

duce search and transaction costs for cattle (Peel *et al.*, 2020; Koontz and Lawrence, 2010; Anderson, Trapp, and Fleming, 2003; MacDonald *et al.*, 2000). Research also indicates average beef quality has increased given the use of AMAs thereby creating value for consumers (Muth *et al.*, 2007). These outcomes mean greater economic surplus has been created due to the use of AMAs. Thus, a potential outcome is that policies aimed at increasing negotiated cash trades and thereby reducing AMAs may have the unintended consequence of reducing overall economic surpluses currently achieved in the fed cattle and beef sector.

A potential outcome is that policies aimed at increasing negotiated cash trades and thereby reducing AMAs may have the unintended consequence of reducing overall economic surpluses currently achieved in the fed cattle and beef sector.

Policies aimed at improving fed cattle markets and related economic surpluses must take into account the risks and incentives faced by all market agents. Peel *et al.* (2020) propose that adding a transparent electronic trading platform for spot market transactions could improve price discovery in fed cattle markets with even a small amount of transactions. We extend that suggestion here as an alternative for consideration to policies focused on mandating increased negotiated cash trade. Research suggests that a double auction would likely be the best trading institution for such an endeavor (Menkhaus *et al.*, 2003). Price discovery will tend to be efficient in this institution provided a sufficient number of buyers and sellers participate. This trading institution also would mitigate some of the risks that seem to dominate bargaining outcomes in private negotiation. Any market alternative must reduce transaction costs for participants in order to be viable (Davidson and Weersink, 1998). Thus, development of several contracts with different specifications related to quality and yield grade that seem to be sought after in both negotiated cash and AMAs transactions, as well as specified premiums and penalties for spot delivery of cattle not meeting specifications, could be used to facilitate quicker trade. Resulting trade information would be reported and thereby add to price discovery. The question is whether enough incentives exist or whether other incentives would have to be provided to attract sufficient buyers and sellers. This alternative ultimately seems more beneficial than mandating increased volume of negotiated cash trades.

References

Anderson, J. D., J. N. Trapp, and R. A. Fleming. 2003. "Estimated Impact of Non-Price Coordination of Fed Cattle Purchases on Meat Packer Processing Costs," *Journal of Agribusiness* 21(3): 183-196.

Adjemian, M. K., B. W. Brorsen, W. Hahn, T. L. Saitone, and R. J. Sexton. 2016. *Thinning Markets in U.S. Agriculture*. EIB-148. Washington, D.C.: U.S. Department of Agriculture, Economic Research Service. March.

Adjemian, M. K., T. L. Saitone, and R. J. Sexton. 2016. "A Framework to Analyze the Performance of Thinly Traded Agricultural Commodity Markets." *American Journal of Agricultural Economics*. 98(2): 581-596.

Bastian, C. T. 2019. "WAEA Presidential Address - Evolution Toward Private Negotiation as a Dominant Institution in Agribusiness Supply Chains: Implications, Challenges, and Opportunities," *Journal of Agricultural and Resource Economics*. 44(3): 457-473.

Bastian, C. T., C. Jones Ritten, B. Feuz, A. M. Nagler, and S. Smutko. 2018. "Can Producers Bargain for Better Prices? Implications from Wyoming Focus Groups," *Journal of the American Society of Farm Managers and Rural Appraisers*. 81: 29-42.

Brown, C. 2021. "50-14 Bill Reintroduced to Improve Cattle Market Price Discovery," Northern Ag Network. March 26. https://www.northernag.net/50-14-bill-reintroduced-to-improve-cattle-market-price-discovery/

Courtois, P., and J. Subervie. 2015. "Farmer Bargaining Power and Market Information Services," *American Journal of Agricultural Economics*. 97(3): 953-977.

Davidson, J., and A. Weersink. 1998. "What Does it Take for a Market to Function?" *Review of Agricultural Economics*. 20(2): 558-572.

Fama, E. 1970. "Efficient Capital Markets: A Review of Theory and Empirical Work," *Journal of Finance*. 25(2), 383-417.

Frechette, G.R. "Chapter 7: Experimental Economics across Subject Populations." In J.H. Kagel and A.E. Roth, eds., *The Handbook of Experimental Economics*, 2nd ed., Princeton, NJ: Princeton University Press. Pp. 435-480.

Friedman, D., and S. Sunder. 1994. *Experimental Methods: A Primer for Economists*. New York, NY: Cambridge University Press.

Janzen, J. P. and M. K. Adjemian. 2017. "Estimating the Location of World Wheat Price Discovery," *American Journal of Agricultural Economics* 99(5): 1188-1207.

Jones Ritten, C., C. T. Bastian, K. Hansen, A. Nagler, and O. R. Phillips. 2020. "Can Prospect Theory Explain Agricultural Producers' Disadvantage During Privately Negotiated Trading?" Working Paper. Laramie, WY: Dept. Ag. & Appl. Econ., University of Wyoming.

Jones, R., T. Schroeder, J. Mintert, and F. Brazle. 1992. "The Impacts of Quality on Cash Fed Cattle Prices," *Southern Journal of Agricultural Economics*. 24(2): 149-162.

Key, N. 2011. "Does the Prevelance of Contract Hog Production Influence the Price Received by Independent Hog Producers?" *Journal of Agricultural and Food Industrial Organization*. 17(1): 205-217.

Krishna, V. 2010. *Auction Theory*. 2nd ed. Burlington, MA: Academic Press.

Koontz, S. R., and J. D. Lawrence. 2010. "Impacts of Alternative Marketing Agreement Cattle on Packer Costs, Gross Margins, and Profits from Plant Level Profit and Loss Data," *Agribusiness: An International Journal*. 26(1): 1-24.

MacDonald J. M., M. E. Ollinger, K. E. Nelson, and C. R. Handy. 2000. *Consolidation in U.S. Meatpacking*. Washington, DC: U.S. Department of Agriculture, Economic Research Service, Agricultural Economic Report No. 785.

Matthews, K. H., B. W. Brorsen, W. F. Hahn, C. Arnade, and E. Dohlman. 2015. *Mandatory Price Reporting, Market Efficiency, and Price Discovery in Livestock Markets*. LDPM-254-01. Washington, D. C.: United States Department of Agriculture, Economic Research Service. September.

Menkhaus, D. J., O. R. Phillips, and C. T. Bastian. 2003. "Impacts of Alternative Trading Institutions and Methods of Delivery on Laboratory Market Outcomes," *American Journal of Agricultural Economics*. 85(5): 1323-1329.

Menkhaus, D. J., O. R. Phillips, C. T. Bastian, and L. B. Gittings. 2007. "The Matching Problem (and Inventories) in Private Negotiation," *American Journal of Agricultural Economics*. 89(4): 1073-84.

Muth, M. K., Y. Liu, S. R. Koontz, and J. D. Lawrence. 2008. "Differences in Prices and Price Risk Across Alternative Marketing Arrangements Used in the Fed Cattle Industry," *Journal of Agricultural and Resource Economics*. 33(1): 118-135.

Muth, M.K., J. Del Roccili, M. Asher, J. Atwood, G. Brester, S. C. Cates, *et al.* 2007. GIPSA Livestock and Meat Marketing Study. Volume 3. Fed cattle and beef industries. Prepared for the U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration. Research Triangle Park, NC: RTI International. January.

Muthoo, A. 1999. *Bargaining Theory with Applications*. New York, NY: Cambridge University Press.

Nagler, A. M., C. T. Bastian, D. J. Menkhaus, and B. Feuz. 2015. "Managing Marketing and Pricing Risks in Evolving Agricultural Markets," *Choices* 30(1): 1-6.

Nagler, A.M., D.J. Menkhaus, C.T. Bastian, M.D. Ehmke, and K.T. Coatney. 2013. "Subsidy Incidence in Factor Markets: An Experimental Approach," *Journal of Agricultural and Applied Economics* 45(1): 17-33.

Nepveux, M. 2021. "New Legislation on Cattle Market Transparency Introduced," American Farm Bureau. March 5. https://www.fb.org/market-intel/new-legislation-on-cattle-market-transparency-introduced

Peel, D. S., D. Anderson, J. Anderson, C. Bastian, S. Brown, S. R. Koontz and J. Maples. 2020. "*Fed Cattle Price Discovery Issues and Considerations*." Circular E-1053. Stillwater, OK: Oklahoma Cooperative Extension Service, Division of Agricultural Sciences and Natural Resources, Oklahoma State University, November. Pp.1-19.

Rahman, M. M., C. T. Bastian, C. Jones Ritten, and O. R. Phillips. 2019. "Subsidy Incidence in Privately Negotiated Spot Markets: Experimental Evidence," *Journal of Agricultural and Applied Economics*. 51(2): 219-234.

Roth, A. E. 2015. "Chapter 5: Experiments in Market Design." In J.H. Kagel and A.E. Roth, eds., *The Handbook of Experimental Economics*, 2nd ed., Princeton, NJ: Princeton University Press. Pp. 290-346.

Sabasi, D. M., C. T. Bastian, D. J. Menkhaus, and O. R. Phillips. 2013. "Committed Procurement in Privately Negotiated Markets: Evidence from Laboratory Markets," *American Journal of Agricultural Economics*. 95(5):1122-1135.

Schroeder, T. C., G. Tonsor, and B. K. Coffey. 2019. "Commodity Futures with Thinly Traded Cash Markets: The Case of Live Cattle," *Journal of Commodity Markets*. 15: 1-15.

Schroeder, T. C., R. Jones, J. Mintert, and A. P. Barkley. 1993. "The Impact of Forward Contracting on Fed Cattle Prices," *Review of Agricultural Economics*. 15(2): 325-337.

Shokoohi, Z., A. H. Chizari, and M. Asgari. 2019. "Investigating Bargaining Power of Farmers and Processors in Iran's Dairy Market," *Journal of Agricultural and Applied Economics* 51(1): 126-141.

Tomek, W. G. and H. M. Kaiser. 2014. *Agricultural Product Prices*, 5th Ed. Ithaca, NY: Cornell University Press.

Tomek, W. G. 1980. "Price Behavior on Declining Terminal Market," *American Journal of Agricultural Economics*. 62(3):434-444.

Vukina, T., C. Shin, and X. Zheng. 2009. "Complementarity among Alternative Procurement Arrangements in the Pork Packing Industry," *Journal of Agricultural and Food Industrial Organization*. 7(1): 1-22.

Ward, C. E., S. R. Koontz, D. S. Peel, and J. N. Trapp. 1996. "Price Discovery in an Experimental Market for Fed Cattle," *Review of Agricultural Economics*. 18:449-466.

Ward, C. E. 1992. "Inter-firm Differences Between Fed Cattle Prices in the Southern Plains," *American Journal of Agricultural Economics*. 74: 480-485.

Ward, C. E. 1981. "Short-Period Pricing Models for Fed Cattle and Impact of Wholesale Carcass Beef and Live Cattle Futures Market Prices," *Southern Journal of Agricultural Economics*. 13(1): 125-132.

Ward, C. E., S. R. Koontz, and T. C. Schroeder. 1998. "Impacts of from Captive Supplies on Fed Cattle Transaction Prices," *Journal of Agricultural and Resource Economics*. 23(2): 494-514.

Chapter 4

Enhancing Supply Chain Coordination through Marketing Agreements: Incentives, Impacts, and Implications

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

Prologue

The U.S. cattle sector is an important segment of the overall farm economy representing about 18% of agricultural commodity receipts.[1] The cattle and beef industry, in addition to being a massive economic sector, is immensely complex, diverse, and dynamic. The vast array of cattle and beef operations and associated business interests naturally creates a diversity of perceptions, opinions, and tradeoffs associated with alternative policies. As public university economists, our goal is to provide information, analysis, and opinions regarding how and why the industry has evolved so interested parties can better understand economic drivers of industry change. We provide this information using publicly available data, review of published work, and through countless industry participant discussions and interviews over the years to appreciate the intricate workings of the industry. We expect a variety of opinions will be present relative to issues addressed in this chapter. We hope our thoughts help guide and inform the dialogue.

Introduction

Dramatic 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 they address supply chain coordination challenges more effectively than negotiated cash fed cattle trade. Incentives to adopt marketing agreements are multi-faceted, interconnected, and emanated in part to better meet customer demands. Having evolved over a few decades, marketing agreements have become integral in coordinating the beef supply chain. Structural changes in how fed cattle value is determined

[1] https://www.ers.usda.gov/topics/animal-products/cattle-beef/sector-at-a-glance/

have resulted in thinly traded negotiated cash markets in some regions, raising concerns about reliability of reported trade and efficiency of cash market price discovery. Thinning negotiated cash cattle trade has resulted in reduced transparency of market information apprising industry participants of evolving supply and demand fundamentals. Tradeoffs between supply chain enhancements facilitated through marketing agreements and reduced market information due to thin negotiated cash trade need to be more clearly understood as strategies and policies are deliberated to address concerns.

The purpose of this chapter is to identify and discuss major economic drivers of marketing agreements and associated outcomes. We also assess market information needs in light of shifts away from cash negotiated fed cattle trade toward marketing agreements. Specific objectives include:

1. Document changes over time in how fed cattle are marketed.
2. Identify and summarize the major incentives for cattle feeders and beef packers to adopt marketing agreements and associated tradeoffs relative to negotiated cash trade.
3. Outline current challenges regarding market transparency in marketing agreements that need to be addressed.
4. Present potential methods Livestock Mandatory Reporting (LMR) might capture and illuminate improved market information contained in marketing agreement price reporting.
5. Outline summary thoughts and recommendations.

Changing Marketing Methods

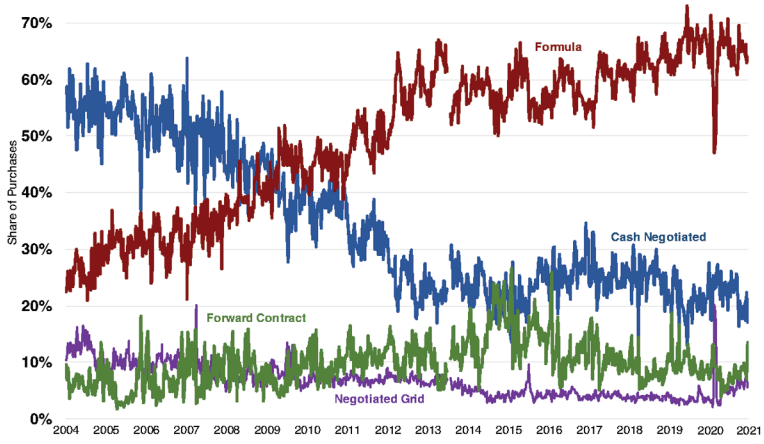
Fed cattle marketing methods have undergone a major transformation over the past 15 years, as illustrated in Figure 4.1. In the early 2000s, cash negotiated trade represented about 55% of typical weekly national fed cattle volume. Negotiated grid and forward contract trade represented roughly 10% each with the remaining 30% being formula trade. Around 2007, formula trade started to increase its relative share of fed cattle marketing so that by 2020 about 60 to 70% of fed cattle were formula purchases. During this same time cash negotiated trade dwindled to 20 to 25% with negotiated grid and forward contracts combined representing the remaining 15% of trade volume.

Integral to understanding what these major trends imply about market performance and associated supply chain impacts are the definitions of what types of fed cattle transaction types are included in each category by the United States Department of Agriculture Agricultural Marketing Service (USDA-AMS, 2020):

1. *Cash negotiated* trade represents cattle purchased by the packer where the price is negotiated with the seller and cattle scheduled to be delivered to the plant within 30 days.

2. *Forward contract* trade is an agreement for the purchase of cattle in advance of slaughter where the base price is established referencing the CME Live Cattle Futures contract.
3. *Negotiated grid* purchases involve negotiating the base price between the packer and cattle feeder at the time of the agreement with delivery expected within 14 days. The final net price is determined after slaughter and carcass grading by adjusting the negotiated base price by grid premiums or discounts based on carcass attributes.
4. *Formula* trade represents cattle committed for slaughter by any means other than cash negotiated, forward contract, or negotiated grid.

These delineations are important because as we discuss marketing agreements in this chapter, we are essentially referring to formula trade (although in places we also include negotiated grids and we specifically note when we do so). However, formula trade, as reported by USDA, is a broad category and details vary considerably across associated transactions. Variation within formula trade compounds market transparency concerns as formula trade has increased in popularity. This issue is addressed specifically later in this chapter.



Source: USDA-AMS archived by LMIC. All live, dressed, steers, heifers, other fed cattle, cows and bulls. Negotiated grid was not tracked prior to April 2004.

Figure 4.1. Shares of Weekly National Live Cattle Purchases by Transaction Type, April 11, 2004 - March 14, 2021.

Incentives and Tradeoffs of Marketing Agreements and Cash Negotiated Trade

In this section we summarize past research that has investigated incentives associated with adoption of marketing agreements and consequences of reduced cash negotiated trade. Much of the synthesis in this section originates from information gleaned from work by Anderson and Trapp (1999), Boykin *et al.* (2017), RTI International (2007), Schroeder and Graff (2000), Schroeder *et al.* (2002), Schroeder *et al.* (1997), Tonsor *et al.* (2010), Liu *et al.* (2009), Peel *et al.* (2020), and numerous discussions with industry participants over the years by the authors.

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 cattle feeder and beef packer incentives and implications associated with various ways fed cattle are purchased is provided in Tables 4.1 and 4.2. 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 (red, yellow, and green shading in the tables refer to relative effectiveness of each marketing method in addressing each consideration) used in the tables is based on a synthesis of past research noted above, numerous informal discussions with industry participants, and our 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

For cattle feeders, the various fed cattle pricing and valuation methods offer highly varied incentives that differ across marketing methods (Table 4.1). To facilitate interpretation, we grouped the various individual impacts of each marketing method (individual rows in Table 4.1) into 1) Cattle Pricing and Value Signals; 2) Marketing Cost, Flexibility, & Risk Management; 3) Market Information; and 4) Supply Chain Coordination.

Cattle Pricing and Value Signals

As noted in Chapter 1, there exists a long history of concerns that fed cattle pricing mechanisms being used to market fed cattle 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. This is not a new concern. Conferences held some 30 years ago organized by the *Research*

Table 4.1. 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

Institute on Livestock Pricing focused on concerns associated with inadequate value signals being sent through traditional fed cattle negotiated cash trade. These concerns, still present today, led to the design and 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. Feeders consider their particular grids in feeder cattle procurement, feeding management,

and marketing decisions. These actions naturally led many feedlots to form direct ties to a single packer with whom they entered into a marketing agreement.

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 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. Furthermore, 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 to enter into marketing agreements.

Marketing agreements 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 is immensely important to recognize as we consider the future implications of marketing agreements in the fed cattle and beef supply chain.

As we present later, 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 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 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

In the late 1980s, Cactus Feeders and IBP, Inc. entered into what was recognized as the first large-scale fed cattle marketing agreement between a cattle feeder and beef packer (Stalcup, 2004). Among major incentives noted at the time were reducing costs and eliminating distractions associated with weekly negotiating of fed cattle trade. Not long after, other cattle feeders entered into agreements, adding market access to a growing list of recognized incentives. Reduced costs and market access, which are present with or without a grid, remain among the most prominent reasons cattle feeders enter into marketing agreements. Most recently during the COVID-19 pandemic that reduced packing plant operational capacity, discussions with industry participants suggested some producers with marketing agreements had higher priority, more reliable, and more timely market access than cattle feeders who were attempting to negotiate spot trade each week. As packer operational capacity was challenged, contractual commitments for fed cattle to be delivered would be prioritized by packers over purchasing cattle in the spot market.

Though marketing agreements reduce week-to-week marketing and price discovery costs and ensure market access, they also 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, utilize that leverage 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. Opportunities to take advantage of short-term leverage swings are largely non-existent in marketing agreements.

Most recently during the COVID-19 pandemic that reduced packing plant operational capacity, discussions with industry participants suggested some producers with marketing agreements had higher priority, more reliable, and more timely market access than cattle feeders who were attempting to negotiate spot trade each week.

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 participants as well as policy-making arenas for a long time (Peel *et al*., 2020) and was a major reason Livestock Mandatory Reporting (LMR) was launched some 20 years ago (Parcell *et al*., 2016). However, with the recent precipitous decline in negotiated cash market fed cattle trade together with large fed cattle suppliers challenging packer slaughter capacity, focused effort on finding ways to "fix" this problem has again elevated. We address the issue of market information and formula trade later. For now, we simply note cash negotiated trade is reported by USDA-AMS during the week the price is agreed upon. In contrast, formula trade price information is reported the week the cattle are delivered to the packer and often based on reported negotiated prices from one to two weeks earlier. As such, 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 reported methods), formula market information currently reported is not highly informative. Concerns are compounded by formula trade often relying on reported negotiated prices as a base price. As formula trade volume grows, a larger portion of cattle are partially priced by a negotiated price based on a thinner market (Schroeder *et al*., 2018).

Supply Chain Coordination

The cattle producer – beef packer relationship has often been described as confrontational. Whether that is widely true or selectively present is debatable, but it is not ubiquitous. Having an adversarial relationship with your customers as a cattle feeder or your main suppliers as a packer is not conducive to coordinating the supply chain, quickly resolving conflicts that might arise, or working together to solve problems. The importance of establishing strong buyer-supplier relationships (SBSR) has been clearly established in the supply chain literature (Board, 2011; Kannan and Tan, 2006). Recent literature has focused even further on advantages of multiple vertical layers of supply chain relationships (e.g., think of cow/calf-backgrounder-feeder-packer) (e.g., Kataike *et al.*, 2019). Established marketing agreements where both the supplier and buyer mutually benefit from the agreement creates strong business relationships that facilitate a collaborative relationship. This directly improves several dimensions of the supply chain, which is further discussed in the next section addressing impacts of cattle purchasing methods on packers/customers.

When a catastrophic event occurs, such as the Holcomb plant fire in August 2019, those with established relationships are able to more effectively work together to mitigate negative impacts. Due to 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.[2]

Packer/Customer Incentives and Tradeoffs

Table 4.2 summarizes a similar color-coded matrix to that of Table 4.1 but is focused on beef packer/customer considerations regarding fed cattle marketing agreements. Similar to the previous discussion relative to cattle producer considerations, we focus on relative rankings of the various fed cattle purchase methods for beef packers. Since the noted attributes also often influence beef customers who are further downstream in addition to packers, we refer somewhat more generally to fed cattle and beef customer impacts.

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 are further emphasized later in this chapter, but they are not only immensely important to customers – their importance will continue to grow in the future as consumer

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

Table 4.2. Relative Ability of Alternative Fed Cattle Marketing Methods to 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

demands and expectations evolve. These considerations are most effectively accomplished through marketing agreements with known sources of fed cattle in the production pipeline.

Having assured sources of fed cattle through marketing agreements also makes animal traceability easier and product volumes assured so the packer is a reliable supplier to downstream customers with product-specific demands. Predictable supply is essential for product branding, whether at retail or food service. Supply chain management incentives related to certification and branding are a major part of marketing agreements discussed regarding cattle feeders.

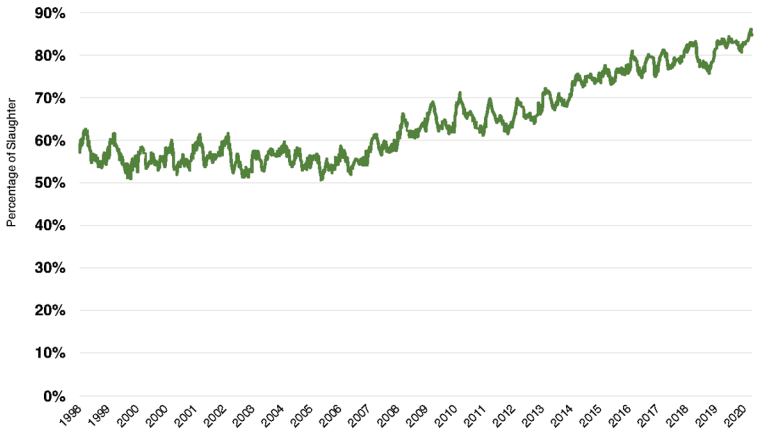
Firm Operations

Incentives for packers to enter into early marketing agreements in the late 1980s and 1990s were mostly associated with enhancing firm operations. In particular, marketing agreements reduce the cost of regularly 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 (Barkley and Schroeder, 1996). These incentives alone were enough to encourage packers to enter into marketing agreements even without the further supply chain enhancements noted above. Since the time of the early agreements, meeting customer demands has become a much more prominent incentive to establish marketing agreements (RTI International, 2007).

One noteworthy tradeoff for packers that use marketing agreements is reduced flexibility. If a packer, for whatever reason, 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. However, counter-balancing the reduced cattle purchasing flexibility, RTI International (2007) packer surveys revealed marketing agreements increased packer flexibility in meeting downstream customer demand.

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.



Source: USDA-AMS as compiled by LMIC.

Figure 4.2. National Weekly Percentage of Steers and Heifers Grading Choice and Prime, 1998-March 2021.

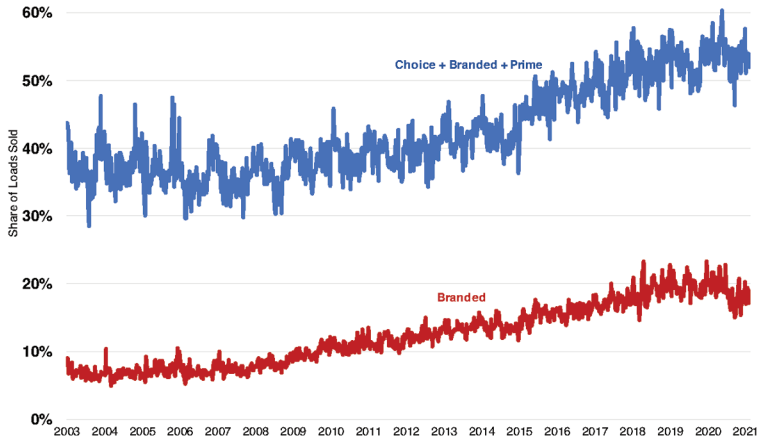
Evidence Summary of Cattle and Packer Marketing Agreement Incentives

Quality Grade Impacts

It is abundantly clear from the previous discussion that marketing agreements have incentivized higher-quality fed cattle production, especially through the use of grids. This begs the question: *Has the increase in marketing agreements led to higher quality beef being produced?*

USDA Market News publishes weekly in the NW_LS196 estimated grading percent report a breakdown of steers and heifers offered for quality grading by grade category. Figure 4.2 illustrates the trend over time in percentage of steers and heifers grading Prime or Choice (the two highest grades) from 1998 to March 2021. During the late 1990s to about 2007, roughly 55% of steers and heifers graded Choice or higher. The percentage of steers and heifers grading Prime or Choice trended upward since 2007 to greater than 80% in 2020 to 2021. Prime and Choice beef has increased substantially resulting in higher quality beef available for consumers at a more affordable price.

Further demonstration of increasing beef quality over time is apparent in wholesale boxed beef sales. Figure 4.3 illustrates sales of Choice and higher-quality boxed beef (Choice + Branded + Prime) as well as just Branded boxed beef sales on a weekly basis starting in February 2003 when USDA-AMS first started reporting. Branded sales data are reported separately. Choice and higher-grade



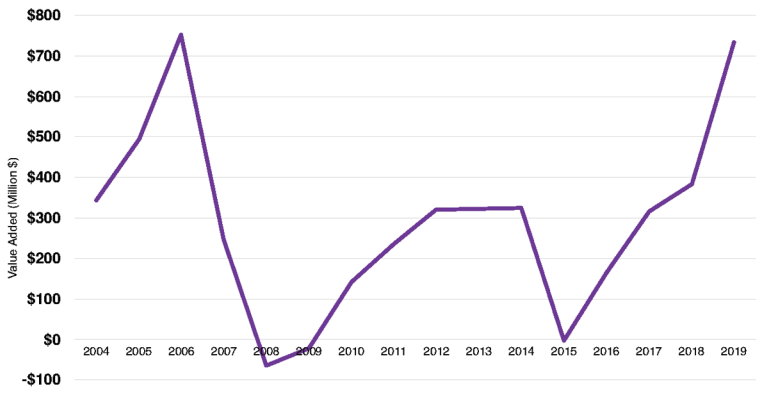
Source: USDA-AMS.

Figure 4.3. Shares of Choice and Higher Grade and Branded Boxed Beef Sales (Loads), Weekly February 28, 2003 - March 12, 2021.

sales went from representing about 35% in the early 2000s to about 55% since 2017. Branded beef increased from about 7% to about 20% over the same time frame. Marketing agreements rewarding higher quality grades through grid premiums have increased concurrent with beef quality over time, providing evidence grid pricing incentives have been effective.

To provide an estimate of the value added to wholesale beef as a result of the higher quality grades being realized, we calculated the net gross dollars added by Prime, Branded, and Choice beef. To get this measure we multiplied premiums over Select for Prime, Choice, and Branded beef by their respective loads marketed. From that, we subtracted the discount of Ungraded beef relative to Select times Ungraded loads marketed. This step is necessary as the growing demand for high-quality beef likely increased penalties for lower-quality beef. This created a net gross dollars added (adjusted to 2019 dollars) over the 2004 to 2019 time period. The net gross value is illustrated in Figure 4.4. The net value changes across years as volumes, premiums, and discounts change. However, since 2015, consistent with when formula trade reached a plateau at about 60 to 70% of fed cattle trade (Figure 4.1), the value added has increased from zero to greater than $700 million in 2019. This means the volume-weighted premiums associated with higher quality beef net discounts for ungraded volume added some $700 million to wholesale beef value in 2019 alone (greater than $25/head of fed cattle slaughtered).

Additional insight follows from combining beef grading shares and prices of boxed beef cutout composites by grade. Specifically, we can easily identify years of obvious demand growth from this information. Considering year-over-



Source: Calculated using USDA-AMS and BLS data.

Figure 4.4. Net Gross Real (2019=100) Dollars Added by Prime, Branded, Choice, and Ungraded Boxed Beef Relative to Select, Annual 2004-2019.

year changes, if the price premium for Prime over Select increased and the share of wholesale beef loads grading Prime grew while the share grading Select declined, then we know demand for Prime wholesale beef grew relative to Select. Applying this approach over the 16 years from 2005 to 2020 to Prime, Choice, and Branded wholesale beef relative to Select, we identify 6 years of obvious demand growth for Prime (2010, 2011, 2014, 2016, 2017, 2019); 3 for Choice (2011, 2016, 2017); and 5 for Branded (2010, 2011, 2016, 2017, 2019). The multiple years since 2010 of clear demand growth for higher grading and branded wholesale beef is consistent with the monetary contribution noted in Figure 4.4. We see no years of clear demand growth for Ungraded beef. This a very conservative approach which identifies the minimum number of years with demand increases.

Producers will not invest in expensive quality grade enhancing production practices unless incentivized to do so.

Recognizing many formula traded cattle are purchased using grids that pay quality grade premium incentives makes it logical to conclude there likely is at least some causality between grid premiums and markedly improving beef quality.

The previous charts are simply trends; one cannot definitively conclude whether there is causality. That is, one cannot say conclusively that marketing agreements caused beef quality to increase. However, causality can rarely be proven; instead, often the best we can do is identify common trends and interpret them in light of context-specific knowledge. Marketing arrangements are inherently prevalent in branded product supply chains. The coordination of production, distribution, and marketing of branded items is challenging to accomplish in traditional spot markets (see Tables 4.1 and 4.2). Producers will not invest in expensive quality grade enhancing production practices unless incentivized to do so. Grids connect the net fed cattle price directly to quality. No other pricing mechanism does this nearly as effectively. Recognizing many formula traded cattle are purchased using grids that pay quality grade premium incentives makes it logical to conclude there likely is at least some causality between grid premiums and markedly improving beef quality.

Beef Trade Implications

International trade in beef products has become a major factor driving industry prosperity. For example, in 2019, beef and variety meat product exports equated to $309.75 per head according to the U.S. Meat Export Federation.[3] The top U.S. beef importers in 2019 are summarized in Table 4.3. The ten largest importers represented 90% of beef export volume with Japan and South Korea each representing more than 20%.

[3] https://www.usmef.org/about-usmef/faq/

Table 4.3. U.S. Beef Imports by Country, 2019.

Country	1,000 Pounds, Carcass Weight	Share (5)
Japan*	799,227	26%
South Korea*	683,791	22%
Mexico	424,455	14%
Canada	267,990	9%
Hong Kong	231,942	8%
Taiwan*	197,843	6%
Philippines	45,729	1%
Vietnam	37,783	1%
Indonesia	33,734	1%
China*	32,098	1%
Subtotal	2,754,592	90%
Others	303,087	10%
Total	3,057,679	100%
* Indicate restrictions placed on animal age, requires export verified systems, and/or zero tolerance restrictions on specified residues.		
Source: USDA-ERS		

Meat trade in general, and beef trade in particular, faces a number of trade restrictions (U.S. Trade Representative, 2021).[4] For example, exports to Japan, South Korea, and Taiwan (three of the top ten importers) each require a USDA Quality System Assessment (QSA) verifying the products were derived from cattle less than 30 months of age (USDA, FSIS, 2020). Several countries require beef products be produced in a way that ensures the product is free of harmful residues. Restrictions also apply to where the animal was raised and/or slaughtered. China has zero tolerance for ractopamine in beef products as well as stringent maximum residue limits for zeranol, trenbolone acetate, and melengesterol acetate which are used to enhance feed efficiency and weight gain (USDA FSIS, 2020). Also important to recognize are countries that, because of their stringent import rules, greatly restrict import of U.S. beef. For example, EU member countries preclude meat imports from livestock treated with hormonal growth promotants (USDA FSIS, 2020).

Synthesizing the varying requirements for U.S. beef by importing countries (with no assessment of the legitimacy and/or legality of those restrictions), it is apparent cattle production protocols are essential to gain export market access. Age and source verification requirements are present in some countries. Restrictions on residue levels on products used in cattle feeding are common. Precluding use of feed additives and/or hormonal growth promotants is prevalent. While verification of these production protocols can be accomplished in several ways, they all entail some form of assurance, third party verification, and potentially formal documentation from the producer to the packer in order to ensure the protocols are being adhered to. This provides another incentive for engaging in marketing agreements and contracts: to match up production protocols with packer-customer requirements. In general, adoption of many export requirement protocols by

[4] https://ustr.gov/sites/default/files/files/reports/2021/2021NTE.pdf

producers increases production costs. Establishing and maintaining export relationships is a costly venture. Beef packers will not take on the added costs without an agreement in place to consistently source cattle that meet the specifications of exporting countries. Likewise, cattle feeders will not take on costs of protocols to meet the standards absent associated premiums to offset added costs.

Marketing Agreements and Market Transparency

One of the major concerns surrounding marketing agreements and formula fed cattle purchases are how they impact price reporting and market transparency. To understand the concern and ultimately determine ways to address it, the nature of the concern must first be delineated, as it is multidimensional.

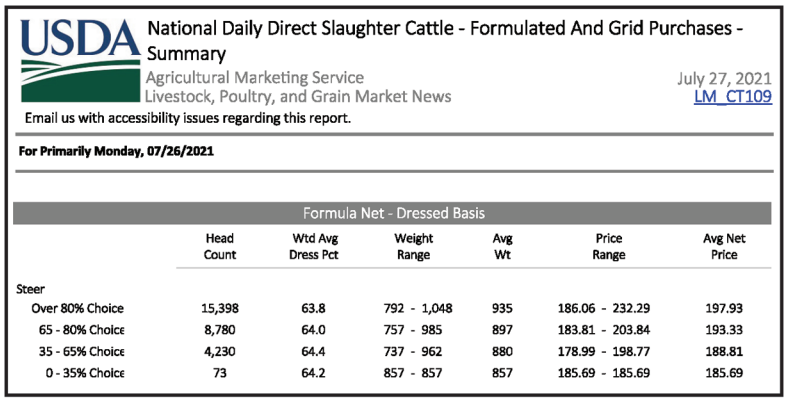
First, marketing agreement purchases do not contribute directly to the current week's cash market price discovery, though they contribute indirectly through anticipated volumes and impacts on market "currentness." This is because marketing agreements tend to be formula pricing with the base price in the formula established by reported negotiated prices from one to two weeks previous. As such, a voiced concern is that in thinly traded spot markets, there may be insufficient negotiated trade to establish reliable and representative cash market information. Furthermore, in some important cattle producing market regions (e.g., Texas-Oklahoma-New Mexico), during certain weeks no negotiated cash price information is reported by USDA. The essence of this concern is that formula trade causes declining spot trade volume thus reducing market transparency. As long as formula prices are based on prior negotiated prices, they do not represent current prices. Switching to use of an alternative base price such as live cattle futures or some other concurrent price that matches the delivery date of formula purchased cattle could alleviate the time matching concern. However, it does not address the concern about the price not directly contributing to today's price discovery.

A second dimension of the concern over formula trade, not unrelated to the thin market concern, is data confidentiality. USDA-AMS uses a set of confidentiality guidelines to determine whether particular market information is publicly reportable. If guidelines preclude reporting, the information may be either not reported or combined with other data and reported in more aggregated form to preserve confidentiality. The confidentiality guidelines USDA-AMS employs are at times binding and impact reporting, especially in market regions where there are only a few major packers and markets are thinly traded (Schroeder *et al.*, 2019). There are strategies to consider in reducing confidentiality constraints including:

1) Modifying the confidentiality guidelines used by USDA-AMS to lessen reporting constraints,
    - Would need careful research to determine feasibility and possible impacts.
2) Aggregating information over time; for example, combining multiple days/weeks of data in USDA-AMS reports,
    - Not likely to reduce the problem appreciably because in some cases

it is endemic with the regional market packer structure and market thinness.
- Makes reported information dated and as such reduces value in information content.

3) Aggregating information across purchase methods (e.g., combining negotiated cash, negotiated grid, and formula trade into a single category rather than separate categories),
   - USDA aggregates now across these pricing methods as well as adding in forward contract trade in the weekly national comprehensive report. This is always reportable and provides a national fed cattle composite net price/value.
   - Removing the forward contract price data from the reported composite prices has been recommended in the past to make this price reflect more current prices, but to date that has not been done by USDA (Schroeder and Tonsor, 2017).
   - Aggregated national price reports do not reveal price variation present across market regions at times (Schroeder *et al.*, 2018 and Schroeder *et al.*, 2019).
4) Aggregating across larger market regions when reporting USDA-AMS data,
   - Has been explored and could work but can reduce the quality of the information in combined regions. For example, Texas-Oklahoma-New Mexico negotiated trade could be combined with Kansas and be reportable more often, but since Kansas is already generally reportable, this would slightly dilute the Kansas report with prices



USDA National Daily Direct Slaughter Cattle - Formulated And Grid Purchases - Summary

Agricultural Marketing Service
Livestock, Poultry, and Grain Market News

July 27, 2021
LM_CT109

Email us with accessibility issues regarding this report.

For Primarily Monday, 07/26/2021

Formula Net - Dressed Basis

	Head Count	Wtd Avg Dress Pct	Weight Range	Avg Wt	Price Range	Avg Net Price
Steer						
Over 80% Choice	15,398	63.8	792 - 1,048	935	186.06 - 232.29	197.93
65 - 80% Choice	8,780	64.0	757 - 985	897	183.81 - 203.84	193.33
35 - 65% Choice	4,230	64.4	737 - 962	880	178.99 - 198.77	188.81
0 - 35% Choice	73	64.2	857 - 857	857	185.69 - 185.69	185.69

Source: USDA-AMS, https://www.ams.usda.gov/mnreports/ams_2659.pdf.

Figure 4.5. Snapshot of Part of USDA-AMS Daily Market Formula Cattle Purchase Report.

from outside the region and it would not add information value to the existing Kansas report (Schroeder *et al.*, 2019).

5) Reporting price summary information in a new way using statistical modeling such as a hedonic model (discussed in more detail later),
   - Has been explored in preliminary work with USDA-AMS transaction data and may have promise, but needs more assessment (Schroeder and Tonsor, 2017).

Finally, a third concern relative to market transparency is related to the information that is and is not reported in formula trade market reports by USDA. Since formula trade is a "catch-all" category of transactions that are not negotiated cash, negotiated grid, or forward contract, there is considerable heterogeneity across transactions. For example, non-hormone-treated cattle (NHTC), grass-fed, organic, specific export-certified, grid cattle, and non-grid cattle purchased under marketing agreements are all included in formula trade market information reporting under LMR by USDA. As such, the reported price range in the formula trade category, representing by far the largest volume of cattle of the four categories, typically exceeds $30/cwt dressed weight (see example of partial recent daily market report in Figure 4.5). Such a large price range makes it difficult to interpret the information reported. The weighted-average price represents a broad array of types of cattle and transactions as the price range suggests. As such, there is no way to know why the range is so wide or what exactly the mixture of volumes of various types of cattle are that comprise the weighted average without having more data and completing careful analysis of the data.

Resolving the issue of excessive heterogeneity in formula trade is an issue that USDA may be able to partly address through modifications to LMR and/or how it is implemented. LMR began in 2001, when fed cattle trade was still mostly negotiated cash and has had only modest changes since inception. Over the same time, formula trade has become the dominant purchase method. A few options exist for providing more transparency in formula trade cattle. One proposal suggests having USDA publish a data library of marketing agreements similar to what has been done for years in the swine market. We will let others opine on the value of publishing contracts, but we suspect the value for weekly price discovery and market transparency is relatively low. A more obvious way to increase transparency is to detail more what the large price range represents in formula trade reports. A few possible ideas come to mind each of which would need to be tested using LMR transactions data collected under LMR that is currently not published:

1) Split formula trade market information into more refined categories for i) grid, ii) non-grid, and iii) specialty (non-hormone treated, naturally raised, etc.) for price reporting. Currently, this level of transaction detail is not collected by USDA under LMR so it would require a change in data collection protocols.[5] Such further refined reporting though could

[5] Any considered adjustment in the level of transaction detail collected by USDA would warrant careful assessment and would apply to all forms of reportable transactions, not just formula trade.

be subject to confidentiality challenges which can only be determined by collecting and analyzing the data.

2) Combined with the above recommendation, we have also recommended USDA report percentiles of prices in addition to simple high and low prices in formula trade. For example, in Figure 4.5 rather than reporting the high and low, USDA could report the 15th and 85th percentile prices. These are much tighter ranges than the absolute high and low and will exclude extreme prices that are likely not relevant to many producers (Schroeder and Tonsor, 2017).
3) Develop some form of hedonic modeling to refine price/value reporting. We have proposed this concept to USDA in past exploratory analysis of LMR transaction sample data, though only through preliminary testing (Schroeder and Tonsor, 2017).[6] The idea with hedonic modeling of LMR transaction data is that it might be capable of increasing pricing transparency while also maintaining confidentiality of actual reported prices if structured accordingly. This approach necessarily entails economic and statistical modeling of reported data to arrive at a reportable price and not just publishing reported prices themselves. However, what we are proposing is not as different as it might first seem since weighted-average prices regularly reported by USDA-AMS also require a statistical price summary method and are not prices themselves. One of the flexible advantages of using hedonic modeling to facilitate market information reporting is subsets of trade can be aggregated over time or space if necessary to ensure confidentiality while not withholding all the information. For example, if only a small number of NHTC traded this week, they could be included in the hedonic model with the previous week's NHTC transactions so an NHTC price differential could still be reported.
4) Combine currently reported separate categories with a goal towards more frequent reporting with details of most importance to the industry. Past research has considered alternative aggregation across market regions regarding negotiated trade (Schroeder *et al.*, 2019). Here possible enhancements in formula reporting may include merging steer and heifer categories (or live and dressed; or splitting % Choice categories into two groups rather than four) with a goal of enabling other – perhaps more desired – breakouts on reports such as specialty (e.g., NHTC) vs non-specialty distinctions.

Inherent in these possible suggestions, as is the case throughout this topic of discussion, are the trade-offs between what is reported and not reported that are directly influenced by private decisions regarding market channels used to transfer ownership of fed cattle.

[6] Hedonic modeling is routinely used by other federal agencies in price reporting (e.g., Bureau of Labor Statistics).

Conclusion and Recommendations

Fed cattle marketing agreements were launched some 30 years ago and focused on ensuring market access, enabling greater capacity utilization, and reducing transaction costs. Since then, marketing agreements have evolved to become instrumental in improving overall supply chain coordination. In addition to the original benefits, cattle producers now also utilize marketing agreements to secure higher prices associated with producing higher quality cattle, producing cattle to match downstream customer preferences, establishing stronger ties and relationships with cattle and beef customers, and building downstream alliances. Together, these provide important economic benefits to the cattle producer that collectively improve overall beef industry value and better serve end consumers. Any limits imposed on cattle feeders' ability to utilize marketing agreements would directly reduce the benefits such agreements have provided producers, packers, customers, and, ultimately, consumers.

Development of marketing agreements have also reduced weekly visible price discovery information. The increased popularity of marketing agreements, combined with the ways marketing information is reported by USDA, makes the associated price information challenging to interpret. Some suggest this reduces market transparency. Indeed, difficult to discern marketing agreement price information is not entirely transparent. However, neither is cash negotiated trade where only limited details about the cattle (sex, market region, and visually estimated quality grade) are known. We have suggested several ways to improve information and transparency for marketing agreement transactions. The ideas we put forth include:

- Consideration of several possible ways to adjust USDA-AMS market reporting confidentiality constraints.
- Modifying LMR information collection and reporting, particularly for formula trade cattle, by USDA to better illuminate reported price information.
- Utilization of new methods of cattle price reporting using statistical models well suited for summarizing such diverse transactions. However, this would require more research to effectively design such statistical models and more detailed data collection by USDA under LMR.

As we noted in the prologue, in an industry as large and diverse as the U.S. cattle and beef sector, there are a wide range of situations and hence opinions on many topics. Our goal in this chapter was to guide and inform discussions to increase industry efficiency, effectiveness, and global competitiveness that elevates aggregate economic well-being. A myriad of economic incentives and market forces have led the fed cattle and beef sectors to the current situation. As such, any efforts to redirect or alter ongoing changes must appreciate the complexity, inter-relatedness, and tradeoffs associated with many of the issues. Further, along with any drawbacks of the current situation, it is important to not lose sight of the

efficiency and consistency of the fed cattle sector in producing high-quality beef that meets demands of many types of consumers around the world. This chapter was composed with this goal and we hope it proves helpful accordingly.

References

Anderson, JD and JN Trapp. (1999). "Estimated Value of Non-Price Vertical Coordination in the Fed Cattle Market." Research Bulletin 2-99, Research Institute on Livestock Pricing.

Barkley, AP and TC Schroeder. (1996). "Long-Run Impacts of Captive Supplies." In Ward *et al.*, *Role of Captive Supplies in Beef Packing* USDA, GIPSA, GIPSA-RR 96-3, May.

Board, S. (2011). "Relational Contracts and the Value of Loyalty." *American Economic Review* 101 (December):3349-3367.

Boykin, CA, LC Eastwood, MK Harris, DS Hale, CR Kerth, DB Griffin, AN Arnold, JD Hasty, KE Belk, DR Woerner, RJ Delmore, Jr., JN Martin, DL VanOverbeke, GG Mafi, MM Pfeiffer, TE Lawrence, TJ McEvers, TB Schmidt, RJ Maddock, DD Johnson, CC Carr, JM Scheffler, TD Pringle, AM Stelzleni, J Gottlieb, JW Savell. (2017). "National Beef Quality Audit – 2016: In-Plant Survey of Carcass Characteristics Related to Quality, Quantity, and Value of Fed Steers and Heifers." *Journal of Animal Science* 95, 7, July:2993-3002. Available at: https://academic.oup.com/jas/article/95/7/2993/4702737

Kannan, VR, and KC Tan. 2006. "Buyer-Supplier Relationships: The Impact of Supplier Selection and Buyer-Supplier Engagement on Relationships and Firm Performance." *International Journal of Physical Distribution and Logistics Management* 36, 10: 755-775.

Kataike, J, A Molnar, H De Stuer, and X Gellynck. (2019). "Examining the Relationship Between Chain Governance Structures and Chain Performance: An Empirical Evidence of the Dairy Sector." *British Food Journal* 121,8: 1850-1870.

Liu, Y, MK Muth, SR Koontz, and JD Lawrence. (2009). "Evidence of the Role of Marketing Agreements and Valuation Methods in Improving Beef Quality." *Agribusiness* 25, 2:147-163.

Parcell, J, G Tonsor, and T Schroeder. (2016). *Baseline Study of Livestock and Meat Marketing Trends and Implications for Livestock Mandatory Reporting.* Research Report to the Agricultural Marketing Service, USDA. August. Available at: https://www.ams.usda.gov/sites/default/files/media/BaselineStudyLivestockMeatMarketingTrendsLMR.PDF

Peel, DS, D Anderson, J Anderson, C Bastian, S Brown, SR Koontz, J Maples. (2020). "Fed Cattle Price Discovery Issues and Considerations." Unpublished report. September.

RTI International. (2007). *GIPSA Livestock and Meat Marketing Study. Volume 2: Data Collection Methods and Results Final Report.* Report prepared for Grain Inspection, Packers and Stockyard Administration, U.S. Department of Agriculture, Washington DC.

Schroeder, TC, GT Tonsor, and BK Coffey. (2018). "Commodity futures with thinly traded cash markets: The case of live cattle." *Journal of Commodity Markets*. Available at: http://www.sciencedirect.com/science/article/pii/S2405851318300564

Schroeder, TC and JL Graff. (2000). "Value of Increased Pricing Accuracy in Fed Cattle." *Review of Agricultural Economics* 22,1:89-101.

Schroeder, TC, LL Schulz, and GT Tonsor. (2019). *Feasibility Assessment of Reporting Negotiated Slaughter Cattle Purchases in Separate Delivery Window Categories.* Research report prepared for the USDA, AMS, November 4.

Schroeder, TC, CE Ward, J Lawrence, and DM Feuz. (2002). *Fed Cattle Marketing Trends and Concerns: Cattle Feeder Survey Results.* Kansas State University Agricultural Experiment Station and Cooperative Extension Service, MF-2561.

Schroeder, TC and GT Tonsor. (2017). *Developing and Assessing a New Composite Fed Cattle Value Report.* Report prepared for Agricultural Marketing Service, U.S. Department of Agriculture. November 15.

Schroeder, TC, CE Ward, J Mintert, and DS Peel. (1997). "Beef Industry Price Discovery: A Look Ahead." In *Price Discovery in Concentrated Livestock Markets: Issues, Answers, Future Directions*, Ed. W Purcell. Chapter 2 pp. 19-85.

Stalcup, L. (2004). "40 Years of Cattle Marketing." Available at: https://www.beefmagazine.com/mag/beef_years_cattle_marketing

Tonsor, GT, JR Mintert, and TC Schroeder. (2010). "US Meat Demand: Household Dynamics and Media Information Impacts." *Journal of Agricultural and Resource Economics* 35, 1 (April):1-17.

USDA, AMS. (2020). *User's Guide to USDA LMR Cattle Price Reports.* October. Available at: https://www.ams.usda.gov/sites/default/files/media/LMR-CattleUserGuide.pdf

USDA, FSIS. (2020). "Export Library – Requirements by Country." Available at: https://www.fsis.usda.gov/wps/portal/fsis/topics/international-affairs/exporting-products/export-library-requirements-by-country

U.S. Trade Representative. Office of the United State Trade Representative (2021). *2021 National Trade Estimate Report on Foreign Trade Barriers.* Available at: https://ustr.gov/sites/default/files/files/reports/2021/2021NTE.pdf

Chapter 5

Another Look at Alternative Marketing Arrangement Use by the Cattle and Beef Industry

Stephen R. Koontz

Introduction

Marketing arrangements that are alternatives to the negotiated cash trade are important to the cattle and beef industry. These Alternative Marketing Arrangements (AMAs) improve efficiency in the system, improve coordination, often communicate information in addition to price, and are important for risk management purposes. These arrangements also impart a cost on the remaining cash market, but the cost evidence is a simpler conversation and has impacts that are more limited when compared to the benefits of AMAs.

This chapter offers a research-based discussion of benefits and costs from the use of AMAs in the cattle and beef industry. AMAs are primarily and specifically formulas and forward contracts. The discussion offered here is mainly developed and synthesized from research conducted prior to 2007 through participation in the USDA Grain Inspection, Packers and Stockyards Administration (GIPSA) RTI Livestock and Meat Marketing Study (LMMS). This research is over fifteen years old, but the economic fundamentals remain applicable, and the results are relevant. Price levels and quantities have changed, but the principles of supply – as determined by the cost of services at issue and demand beginning with the consumer and transferred to the farm-and ranch-level by provision of marketing services – have not. The discussion will offer a summary of the LMMS findings and attempt to consider how those findings might change with the subsequent changed market environments, underlying magnitudes, and considering inflation. The discussion will also place the results of the LMMS in the context of considerable other research on the market organization and performance of fed cattle and beef markets.

Evidence from three of the four LMMS sections will be presented in turn. Dollar impacts and magnitudes are quoted from the LMMS research, with a base inflation year of 2004. Between 2004 and 2021, the Producer Price Index (PPI) showed an inflation rate of about 40%. While the Consumer Price Index (CPI) measured inflation is higher, the PPI rate better measures impact within

the raw material portion of the food system. Thus, extending this prior work to now involves impacts that are at least 30 to 40% larger, as long as there is not some compensating or exacerbating change in industry structure.

The main purpose of this chapter is to offer a research perspective on the "30/14" and "50/14" proposals that have been circulated and supported by various organizations of cattlemen and state producer associations.

The main purpose of this chapter is to offer a research perspective on the "30/14" and "50/14" proposals that have been circulated and supported by various organizations of cattlemen and state producer associations. "30/14" refers to the requirement that each beef packing facility must procure 30% of fed cattle needs through the negotiated cash market for delivery within a 14-day period. "50/14" is similar with a 50% negotiated cash trade requirement. A number of similar proposals have been introduced – for example, S.543 (117th Congress), the *Cattle Market Transparency Act of 2021,* which was introduced by Senator Deb Fischer (R-NE), would require USDA to, among other things, establish regional mandatory minimums for negotiated trade.

Currently, just less than 70% of cattle marketings are through formula methods. Formula methods imply that the price for the transaction is discovered through some other transaction. Most commonly, a USDA Agricultural Marketing Service (AMS) reported regional price is used. Approximately 10% of fed cattle marketings are forward contracted. Forward contracts are transactions for cattle to be delivered 30 or more days in the future. This leaves about 20% that is transferred through the negotiated cash market, with a small portion (2%) using a negotiated grid pricing structure. Variations in these amounts differ greatly across the five USDA-AMS Livestock Mandatory Price Reporting regions. All of the policy proposals would involve substantial changes to how cattlemen and those in the cattle industry do business with packers. These proposals, if adopted, are mandates that require changing entire business models and practices.

Mandates to negotiated cash trade are limitations on AMA use. LMMS was a research project which examined the benefits and costs to AMA use, mandated and funded by Congress. It was a project to address a similar policy mandate in 2002 within a proposed amendment to the Farm Bill: "The Johnson Amendment." This amendment sought to prohibit or limit AMA use – the purpose of some of the legislative proposals currently under consideration. Thus, there is scientific research which addresses mandated-cash-trade questions.[1] There are six total volumes of work from four teams comprised of 30 researchers totaling almost three years of effort, an interim report, peer reviews, and comments of the effort are also available. The LMMS was not the first in-depth look at "captive supplies", or AMAs prior to the LMMS effort. LMMS was, however, the most comprehen-

[1] The original research project publications can be found online at https://www.gipsa.usda.gov/psp/publication/live_meat_market.aspx and the specific reports used in this chapter are Muth *et al.*(2005) and Muth *et al.*(2007).

sive benefit/cost analysis supported by multiple efforts, whereas the 1996 GIPSA Concentration Study looked more specifically at market power (Ward, Koontz, and Schroeder (1996), Azzam and Schroeter (1996), Kambhampaty, Driscoll, Purcell, and Peterson (1996), and Williams *et al.*(1996)), as did the "Panhandle Study" (Schroeter and Azzam (1999)). An assessment of the policy proposals is offered in the context of having participated in both the LMMS and the Concentration Study.

The short-term impact, for a policy most like that being considered, is a $2.5 billion negative impact in the first year and a cumulative negative impact of $16 billion over 10 years, inflated to 2021 dollars. This cost is leveled mainly on cattle producers. The 50/14 proposal would have these negative impacts and the 30/14 would have similar negative impacts albeit approximately halved.

The bottom-line impact of any intervention into the cattle market is the fact that there are modest benefits and considerable costs due to lost efficiency and product quality from mandates. Similarly, but context reversed, this is because AMA use has considerable benefits and modest costs due to solid economic foundations. This was the conclusion across the fed cattle and beef, hog and pork, lamb and lamb meat, and downstream meat distribution industries in the LMMS. For the cattle and beef industry, the costs are ultimately incurred by cow-calf producers and beef consumers. The short-term impact for a policy most like that being considered is a $2.5 billion negative impact in the first year and a cumulative negative impact of $16 billion over 10 years, inflated to 2021 dollars. This cost is leveled mainly on cattle producers. The 50/14 proposal would have these negative impacts and the 30/14 would have similar negative impacts albeit approximately halved.

It is also important to recognize the regional distribution of impacts across the United States. Current policy proposals will have an impact on the upper Midwestern cattle feeding and packing industry, but there will be a substantial impact in the Southern Plains and on producers that supply calves into that system. The negotiated cash trade is only a small portion of the volume of animal marketings in the Southern Plains.

Returning to details of the synthesis, the main cost to the cattle and beef industry of AMA use is the potential for beef packers to exercise market power. The main benefit to the cattle and beef industry of AMA use is that feeding and processing facilities can operate more efficiently, manage risks, and provide higher quality beef products to consumers. The market power versus efficiency question is of interest to producer groups, industry groups, and policy makers, and is often the bottom line in many discussions.[2]

A second cost of AMA use to the cattle and beef industry is the potential detrimental impact on the quality or effectiveness of price discovery. The LMMS did

[2] Examples of the research perspective on this question include: Azzam (1996), Azzam (1997), Azzam and Schroeter (1995), Lopez, Azzam, and Liron-Espana (2002 and 2003), Ward (2002), and Ji and Chung (2016).

not address this issue, whereas some ongoing research work does. As discussed in Chapter 2, improving the quality of price discovery does not fundamentally change supply and demand, and will therefore not change the costs and benefits as measured in the LMMS. Substantial AMA use and limited use of the negotiated cash market can result in prices that are biased too high or too low or are inefficient, with more underlying volatility than need be. However, there is no empirical evidence supporting this concern.

Four portions of the 2007 LMMS Final Report provide direct research results that can respond to the proposed policies. First, the LMMS measures the effect of market power stemming from AMA use on fed cattle transaction prices. Fed cattle prices change with a variety of market factors, quality factors associated with the cattle in the transaction, and the extent of AMA use by the packing industry at the time of the transaction. This "cost" associated with market power and AMAs was analyzed in the report.

Second, individuals associated with businesses in the cattle feeding industry and in the beef packing industry were interviewed to assess the reasons for AMA use and to attempt to place a value on these alternatives to those businesses. AMA use was always part of a cost-reducing, efficiency-increasing, and product quality-increasing exercise with all the businesses interviewed. AMA use allowed for reductions in personnel, increases in capacity utilization, and improvements to cattle and beef product quality. These changes were all communicated as important.

Third, packer plant-level profit and loss (P&L) statements were analyzed in the LMMS. The focus was to determine the impacts of AMA use on the reported costs of slaughtering and processing fed cattle. The study examined supply chain management questions associated with AMA use. Specifically, did plants with higher levels of AMA use have lower cost of slaughter and processing? More efficient slaughter and processing results in higher prices to producers selling cattle and lower prices to consumers buying beef and is a benefit to the industry. This efficiency benefit was measured in the study.

Fourth, these three results were combined in an economic model representing the cattle and beef markets so the net impact could be estimated. The net impacts were measured across the different segments of the industry – from the consumer to the producer – and over different time horizons, from the current year out to 10 years in the future. A summary of this overall assessment is offered at the end of the chapter.

A further section will communicate the importance of economies of size to the beef packing industry. These economies are orders of magnitude larger than established measures of market power. Also, before the overall market impacts are presented, a market power discussion of AMA use will be offered. AMAs are often discussed with respect to impacting underlying market fundamentals. This is an improper assessment; an alternative assessment will be offered. This additional sixth section will offer a detailed example of AMA use across hypothetical markets for fed cattle. The example incorporates the structure of formulas and details the decision-making processes, while also illustrating how formula marketing volumes do not impact overall supply and demand nor does formula marketing empower downstream firms (packers) with a tool to exercise market power.

Finally, the chapter will conclude by returning to the overall assessment and offer ideas for future research. The policy interventions being considered are substantial and would likely have far reaching impacts on the cattle and beef industries. The existing research remains clear but may also be dated. If there is an interest in updating this research – or making the research on a persistent issue more ongoing – there are some suggestions for helping to better understand what we do not know from existing scientific work.

Impact of AMAs on Cattle Prices

This is the first section of this chapter to summarize findings from the LMMS.[3] The LMMS project used packer data on fed cattle transaction prices between October 2003 and March 2005 to examine specifically if AMA volume impacted fed cattle prices. These databases were maintained by packers for accounting purposes for the payment for cattle and are reported in aggregate terms by the USDA-AMS under Mandatory Price Reporting. USDA GIPSA has the authority to compel packers to provide transactions and financial data for study.

The transaction databases contain a wealth of detail about the cattle procured including animal breed, number of head, percent of animals in various USDA quality and yield grades, percent of out-weight carcasses (too light or too heavy), cattle destined for branded or certified programs, and the method of pricing and marketing. Pricing methods include liveweight, carcass weight, and carcass weight with grid premiums and discounts. Marketing methods include individual negotiated (cash market), forward contracted, packer-owned, formula, and auction barn or dealer purchased. This price database is not a sample, but rather the population of transactions as maintained by packers. As a result, impacts found here are not merely generalizations based on samples but are, in fact, the actual impacts on the market in the study period.

Statistical analyses were used in which fed cattle transaction prices were explained by market conditions, animal quality, and AMA use. Market condition variables included the USDA reported boxed beef cutout value, the nearby CME live cattle futures prices, the prior week's AMS reported cash market price for the packer's region, and the volume of animals on the showlist. Animal or transaction quality is measured by the variables listed earlier. Another important variable in the analysis was showlist. Showlist size is not observed in the data directly nor reported by the USDA; it is the inventory of cattle for sale at any point in time. Cattle slaughtered on any one day must have been for sale – or on the showlist – for at least the prior two-to-three weeks. So, the showlist on a given day is the sum of cash market animals slaughtered over the next 14 days. Similarly, 21 days into the future were used, but the results were the same. AMAs were measured as a percent of plant weekly purchases or capacity, or the percentage of cattle slaughtered in each week that were AMA cattle. This variable provides a measure of market power.

What are the results? First, economic fundamentals and animal quality are significant in explaining transaction prices. Higher boxed beef cutout values, fu-

[3] The findings are reported in Muth *et al.* (2007), Muth *et al.* (2008), and Liu *et al.* (2009).

tures prices, and prior week cash prices all result in higher transaction prices. Further, higher quality cattle earn premiums and lower quality cattle receive discounts relative to average quality animals. Larger numbers of animals in a transaction result in a premium. The model also shows that showlist size is important – outside of the showlist variable itself. When cattle prices are strong relative to market conditions then they tend to stay strong and when prices are weak then they tend to stay that way. All these results show that many things impact cattle prices and that there is considerable momentum in prices. The impact of AMA volume on price cannot be examined in isolation. The impact is residual, as these other economic factors are the most important determinates of price.

The average fed cattle price in the sample period was $1.38 per pound of carcass weight. All prices, carcass, grid and liveweight, were converted to in-the-beef (or dressed weight). Once all the above things were accounted for, then the impact of AMAs can be measured. It was found that when AMA volumes are higher, relative to plant capacity, fed cattle prices are lower, but the impact is small. On average, a 1% increase in AMA cattle is associated with $0.04 per hundredweight decrease in transaction price. If all AMAs were eliminated (for all plants the average utilization was 17%), the associated price increase would be $0.68 per hundredweight of carcass. This would be $6.12 for a 900-pound carcass. The impact was small but statistically significant. Further, it is important to recognize that this measure is from all the plants in the US. The result is a weighted average across all plants. The national average result is small, and this is because all the regional or plant specific impacts were small as well.

This conclusion is also in agreement with a substantial majority of research on marker power in the cattle and beef industries. There are examples where market power is a large percentage of fed cattle price,[4] but far more scientific work suggests the impact is small.[5] Older research results from the Structure-Conduct-Performance paradigm (Bain 1968) tend to be larger than the more contemporary results from the New Empirical Industrial Organization paradigm (Bresnahan 1989). The results from the theoretical studies also suggest large impacts which are at odds with the empirical work.[6] There are also a variety of works that examine market power over time or over different market conditions, or for changes in the market power exercising conduct,[7] and research just on the impact of captive supplies.[8]

Market power is a well-studied question, but there is no definitive study as there are a variety of approaches and assumptions needed to produce estimates.

[4] These works include Marion and Geithman (1995), Quail, Marion, Geithman, and Marquardt (1986), Hall, Schmitz, Cothern (1979), Azzam and Pagoulatos (1990), and Menkhaus, St. Clair, and Ahmaddaud (1981).

[5] See, for example, the works of: Azzam and Schroeter (1991), Koontz, Garcia, and Hudson (1993), Koontz and Garcia (1997), Elan (1992), Schroeter and Azzam (1990, 1999, 2003, and 2004), Ward (1981, 1982, and 1992), and Muth and Wohlgenant (1999 and 1999).

[6] See Xia and Sexton (2004), Zheng and Sexton (2000), and Zheng and Brorsen (2010).

[7] See Schroeter (1988), Crespi and Sexton (2005), Crespi, Xia, and Jones (2010), Boyer and Brorsen (2013), Ji, Chung, and Lee (2017), Brorsen, Fain, and Maples (2018).

[8] See Schroeder, Jones, Mintert, and Barkley (1993), Ward, Koontz, and Schroeder (1998), Azzam (1998), and Love and Burton (1999).

The main conclusion from a reading of this empirical research is that market power, while persistent, is not the primary determinate of fed cattle price. This is specifically the case when the market power assessment is viewed in the context of economies of size.

However, extending these results to the current time period is the most questionable part of this process: taking results from the early 2000s and interpreting in light of market conditions in the early 2020s. AMA cattle are 60 to 70% of plant capacity and supplies are currently in excess of plant capacity if plants only operate five days per week. Market power measures may be higher in the 2016 to 2021 period than most of the research that has been done prior to 2015. This is a research question which will be answered by an analysis of the price history record. Regardless, it is doubtful market power measures are larger than economies of size, which will be discussed in several remaining sections.

Impact of AMAs on Cattle Feeding and Packing Operations

This is the second section of this chapter to summarize findings from the LMMS. Part of the LMMS project involved interviewing cattle feedlots and packers in person and asking a series of questions regarding how restricting packer procurement would impact business. The questions asked included:

- What kind of immediate adjustments would your company have to make if packer procurement relationships were restricted?
- What effects would restrictions on packer procurement relationships have on how your company operates in the long run?
- If this method affects costs, what would you estimate is the percentage change in costs compared to using the negotiated cash market?
- If this method affects quality, what would you estimate is the percentage change in value compared to using the negotiated cash market?

The cattle feeder responses to the question of immediate adjustments were mixed. Some thought they would go out of business and that the adjustments would have a dramatic effect on the structure and stability of the industry. Others thought the adjustments would have no impact on their business or that effects would depend on how narrowly packer procurement relationships were defined. Still others had no opinion.

One implication of restricting AMAs noted by several respondents was the impact on risk-bearing ability and capacity utilization. Outside investor capital reduced the equity that the cattle feeding business must provide to feed cattle, and known marketing arrangements allowed cattle feeders to secure both outside investment and better terms from lenders. Without AMAs, the cattle feeding business would feed fewer cattle and would have to borrow more against the cattle. The individual feeders would have underutilized capacity or would have to find new investors to replace the capital that investors who sought specific marketing methods once provided. There is investment capital that will feed cattle when the

cattle were forward contracted or marketed under formula. This investment capital has much less interest in feeding cattle if animals must be marketed through negotiated cash trade.

To attract capital that is not in cattle feeding would require a higher rate of return than cattle feeding currently offers. Otherwise, that capital would already have been invested in cattle feeding. Given that the supply and demand of beef is relatively fixed in the short run, fed cattle prices are not expected to change substantially. Thus, higher rates of return would have to come from downward pressure on feeder cattle price. Likewise, if feedlots have more debt and/or more risk, the higher cost of borrowing will result in lower bids for feeder cattle.

Packers indicated that in the short run they simply would adjust to the new restriction and the extent of adjustment would depend on how the restrictions were defined and that over time, any costs implied by restrictions would be internalized and impact fed cattle bids. In the short run, feedlots and packers would adjust to restrictions on packer procurement relationships. Packers face the same beef demand and cattle supply, but they would buy more cattle through other methods. Individual feedlots that have AMA cattle would face increased risk and higher financing costs because they must own or find owners for the cattle. Packers expect they would have to reduce capacity utilization if procurement relationships were limited. In the short run, because cattle supplies are fixed, someone would own and feed the cattle, but there would be a higher rate of return or higher finance costs to replace the capital that is removed, thus leading to downward pressure on fed cattle and feeder cattle prices.

Feedlots and packers identified two primary long-run effects of restricting packer procurement relationships of cattle. The first effect, consistent with short-run impacts, would be increased risk and reduced capacity utilization due to removing capital from the feeding sector. The second effect would be reduced product quality by moving back to a commodity market. Feedlots and packers expressed concern about the difficulty of meeting the needs for customized product in branded programs. New strategies would have to be developed to meet demand in this segment of the market. Otherwise, feedlots and packers would miss out on these higher-value consumer markets.

Several respondents had the expectation that removing or restricting capital to the sector will lead to reduced capacity, particularly during downturns in the market. Greater quality concerns, more risk, and less capital will lead to a smaller beef industry. Feedlots thought their costs would increase if packer procurement relationships were restricted. Cost savings associated with AMA cattle come in the form of operational efficiency and lower average overhead cost through improved throughput.

Operational efficiency from packer procurement relationships results in more consistent operations: the number of cattle in the feedlot is more consistent from month to month and labor is used more efficiently because of this predictability. For example, a labor efficiency of one person per 1,500 cattle may be achieved using packer procurement relationships rather than an industry average of one per 1,000 cattle. Feedlots with AMA cattle have more consistent cattle and feeding

programs and the consistency improves efficiency; a feedlot might need fewer feed trucks and could have larger feed batch runs, because a high percentage of the cattle would be on the same program (instead of having many different types of cattle and rations). Some feedlots reported close to a 20 percentage point increase in capacity utilization due to packer procurement relationships, which spreads overhead costs over more cattle.

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Packers' concerns were related to beef quality and loss of customers for higher quality products.

Cost savings were estimated in the 17% to 22% range across those interviewed. With $0.30 per day yardage cost (not including feed) and 150 days on feed, total feedlot cost per head is $45.00; thus, cost savings would be $7.65 to $9.90 per head. Labor cost savings estimates account for much of this gain and were reported to be in the $1.25 to $10.00 per head range. Quality premium loss estimates are over and above the efficiency gains and ranged from $15.00 to $17.00 per head.

Packers estimated their change in costs from restricting packer procurement relationships would be less than those reported by feedlots. They noted some lost efficiencies and the need to add more cattle buyers to return to an all-cash procurement system (for example, an additional buyer costs $0.40 per head). Packers' concerns were related to beef quality and loss of customers for higher quality products.

Feedlots and packers expressed concern about the impact on quality if packer procurement relationships were restricted. They expected to revert to a commodity market with few incentives for higher quality cattle. Feedlots reported this loss to be worth $1.00/cwt or higher. The interviews and economic model results (in the last section) agreed that the changes in quality and prices are expected to be small because of restricting AMAs. They also agree that everyone from consumers to cow-calf producers would be worse off because of the restrictions. That is, quality would be reduced, costs would increase for feedlots and packers, and cattle supplies would decline.

The costs and benefits as discussed in this section are in 2004 dollars. These can be reasonably inflated to 2021 dollars; however, the development of specific attribute beef products is far more prevalent today. For certain, the magnitudes of AMA benefits are not less. Further, many of the businesses interviewed are more entrenched in current business models that make substantial use of AMAs – these business models were more reasonably new during the LMMS project.

Impact of AMAs on Packer Plant-Level P&Ls

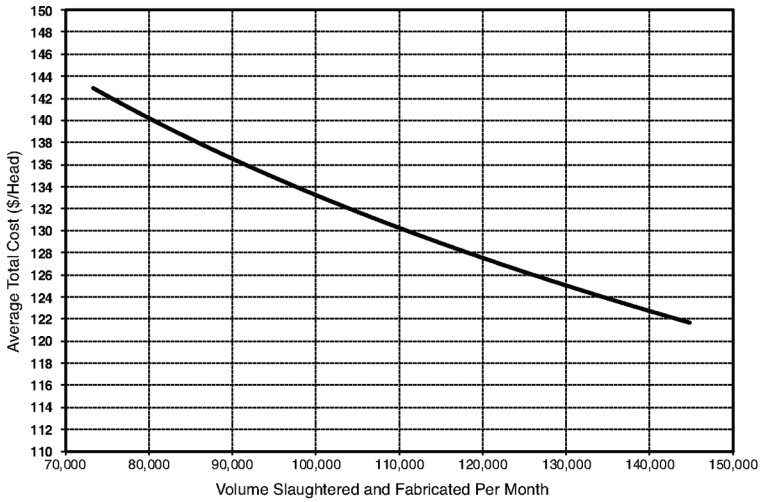
This is the third section of this chapter to summarize findings from the LMMS. Monthly P&L statements from October 2003 to March 2005 were examined for

all the plants operated by the four largest packers. These plants accounted for 83% of USDA Federally Inspected Fed Steer and Heifer slaughter numbers. This was one of the unique portions of the LMMS as packer P&L data are almost never examined in published research.[9]

The P&L data were used to examine four questions. First, what is the average total cost (ATC) of slaughter and processing? Statistical models were used to explain ATC as a function of volume and other things. The project was interested in the shape of the curve – how steep is it, is the bottom flat, and does it increase at higher volumes? Second, do plants with higher AMA volumes have lower costs all else constant? Third, do plants with higher AMA volumes have higher throughput than those with less? Fourth, do plants with higher AMA volumes have more predictable volumes?

The results indicate that ATC was a function of volume, and modestly, other economic factors. Each plant is somewhat different in technology and engineering and therefore all have modestly different costs. Larger plants had lower ATC than smaller plants and the more cattle pushed through a plant, the lower the costs were per head. The ATC curve for a representative plant is presented in Figure 5.1. Packer slaughter and processing ATC decreased sharply over the entire range of processing volumes. Plants that operated at the low end of ATC are 5 to 7%

[9] This work is reported in Muth *et al*. (2007) and Koontz and Lawrence (2010).



Source: Muth *et al.* (2007) and Koontz and Lawrence (2010.

Figure 5.1. Average Total Costs of Slaughter and Fabrication for a Representative Beef Packing Plant from Firm-Level P&L Financial Statements and Measured in $2004.

more efficient than those that operated in the middle and 12 to 15% more efficient that those on the high end. Large plants have significant cost advantages over small plants. This is likely the main reason for increasing concentration in the beef packing industry; big plants are less expensive to operate per head than are small plants. However, large plants require large volumes to realize these efficiencies. Consequently, securing supplies is crucial. Further, these economies are much greater than measures of market power.

In combination, packing industry slaughter and processing costs are 4.7% lower because of the use of AMAs.

The project also found that plants with higher AMA volumes had lower costs, after accounting for other factors like volume. If AMA usage was eliminated, then costs would increase by 0.9%. The average cost of slaughter and processing for this period was $138.61 per head. Thus, the industry was saving $1.22 per head through direct use of AMAs. But the direct impact was not the only impact nor the most important. We also found that plants with higher AMA volumes had higher average monthly slaughter and processing volumes. In the absence of AMA usage, average monthly volume would be 8% lower and increase costs by 2.6%. Finally, we found that plants with higher AMA volumes had more predictable average monthly volumes. Without AMAs, average monthly volumes would be 70% more variable and cause a 1.2% increase in cost. In combination, packing industry slaughter and processing costs are 4.7% lower because of the use of AMAs. This was approximately a $6.50 per head cost savings. During this period, the four largest packing firms had an average loss of $2.40 per head. AMAs were important to the packing industry, and to the cattle industry, from the standpoint of efficiency. The dollar impacts may have been small because of the short period for which P&L data were available. Over a longer period than 18 months, cattle supplies and costs would be more variable, and more variation in cost might be associated with AMA use.

These costs and values are in 2004 dollars and should inflate to 2021 dollars with reasonable transparency. It is also likely impacts are greater now than in the early 2000s as AMA use is more common and more integrated into supply chains and plant management. Finally, the overall results and magnitudes reveal how out of balance the supplies of fed cattle were relative to packing capacity. Packing firms are under severe profit pressure and there are economic incentives to not invest in plant and packing infrastructure nor to maintain some plant operations.

The Importance of Economies of Size

This section discusses work separate from the LMMS, continued after the LMMS was completed in the process of communicating and understanding the economic issues underlying growth and innovation in the beef packing industry. This work was reinforced by events experienced prior to the pandemic and during the closure of the economy during the COVID-19 outbreak.

In today's dollars, a large efficient commercial slaughter and fabrication beef facility can run at a cost that is reasonably and approximately $180 to $200 per head, if the plant is of substantial size and runs multiple shifts per day over the entire week. These are also pre-COVID costs. Importantly, if the plant is operating at an efficient rate with high and steady throughput, then the plant can obtain its potential operating capacity. Commercial plants operate two shifts per day, for six days a week, and typically process at least 300 head of fed cattle per hour. These plants will process 25,000 to 35,000 head per week. Reducing the operating rate relative to potential capacity increases the cost per animal incurred during operations. Most of a packer's expenses are for the physical facility, equipment, plant management, portions of the meat sales force, and company management.

Labor, energy, and materials costs are also important, but these variable costs are substantially less than fixed costs. The fixed costs do not vary in the short run, if a plant or a variety of plants owned by the firm do not operate at potential capacity. Reducing operations volumes by 20% then increases non-animal costs per animal by 7% to 10% relative to the lowest potential costs. Reducing operations volumes by 40% then increases costs per animal by 15% to 20%, again relative to the lowest potential costs. Reducing the operating rate of packing plants increases the costs of operating and increases costs at an ever-increasing rate. The most expensive-to-operate commercial plants when operated at reduced capacity incur costs of about $300 to $350 per head, compared to very small packing operations that serve the freezer beef market with best-case costs of $600 to $800 per animal pre-COVID.

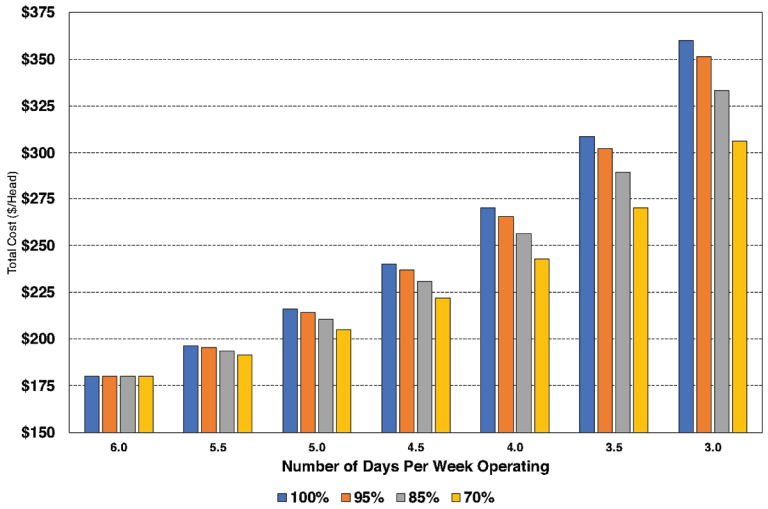
For a given facility, costs are lowest when running the plant at closest-to-potential capacity. Across the spectrum of possible plants, the larger plants have lower costs per unit processed. It is possible that plants can be so large as to have capacity larger than the regional supplies of animals and that transportation costs from bringing in animals from other regions may make the facility uneconomical. However, this does not appear to be common, nor is it discussed by packing industry members.

It is difficult to estimate costs for the plants whose operations were so dramatically impacted during the spring of 2020. In all the meat packing plant operations data that have been reported, it is unprecedented for plant volumes to decline so steadily to such low levels. In any other situation, plants would simply cease operations. The managing firms would have temporarily closed the plants rather than operate at such low levels. However, the 2020 situation is unlike any other. Economics are not driving meat packing plant operations – rather, the pandemic is the driving factor.

The following estimate is based on economic logic and not accounting data: if a plant is slaughtering and fabricating 312.5 animals per hour, operating two shifts per day, and running six days per week, the total weekly volume is 30,000 head. Suppose operating costs are $180 per head at this volume and level of throughput. This is the top line in Table 5.1. The remainder of the table calculates the increased cost per head of reduced operations. Suppose the plant operates five days per week; then the cost per head jumps to more than $200 per head. One less

Table 5.1. Calculated Cost Per Head for a Hypothetical Large Plant Operating at Various Below-Capacity Volumes. (Throughput is 312.5 head per hour, shifts are 8 hours, there are two shifts per day and operating ½ day is one shift.).

Days Per Week	Percent Capacity	Volume Per Week	Reduced Volume	Cost Per Head	Cost Increase
6	100%	30,000	0%	$180	0%
5.5	91.67%	27,500	-8.33%	$196	9.09%
5	83.33%	25,000	-16.67%	$216	20%
4.5	75%	22,500	-25%	$240	33.33%
4	66.67%	20,000	-33.33%	$270	50%
3.5	58.33%	17,500	-41.67%	$309	71.43%
3	50%	15,000	-50%	$360	100%
2.5	41.67%	12,500	-58.33%	$432	140%
2	33.33%	10,000	-66.67%	$540	200%
1.5	25%	7,500	-75%	$720	300%
1	16.67%	5,000	-83.33%	$1,080	500%



Source: Author calculations.

Figure 5.2. Total Slaughter & Fabrication Cost Per Head for Efficient Beef Plants Across Numbers of Operating Days (with Two Shifts per Day) Per Week and Varying the Percent of Total Costs that Are Fixed Versus Variable (100%-95%-85%-70%) and a Base Cost of $180 Per Head.

day of operations results in a 20% increase in costs per head. If the plant operates four days per week, then the cost per head is $270 per head, a 50% increase in costs. Reducing plant operations by one or two days per week is not uncommon with reduced cattle supplies but are reasonable variations in plant operations. The variation in actual costs may be less as less energy, materials, and labor are required. Labor is often guaranteed a weekly number of hours, and plants are not simply turned off but have operations scheduled for multiple weeks.

Figure 5.2 illustrates the total cost per head of slaughter and fabrication under alternative scenarios whereby the base cost is not entirely fixed costs. Scenarios are shown where variable costs are 5%, 15%, and 30% of the base $180 per head cost. Costs per head do not increase as dramatically when more of the base cost is variable, as that portion of the cost decreases as fewer animals are processed and fewer shifts are run. By far the largest portion of base packing costs are fixed and reducing the volume of processing necessitates allocation of a higher portion of fixed costs to the individual animals processed.

The prior discussion is a synthesis of interview information and economic logic. It is a simple example, but the conclusions are supported by all prior research on packer costs.[10] Economies of size are a prevalent finding for the beef processing industry.

Packer plant-level profit and loss (P&L) statements were analyzed in the LMMS. The focus was to determine the impacts of AMA use on the reported costs of slaughtering and processing fed cattle. The study examined supply chain management questions associated with AMA use. Specifically, did plants with higher levels of AMA use have lower cost of slaughter and processing? More efficient slaughter and processing results in higher prices to producers selling cattle and lower prices to consumers buying beef and is overall a benefit to the industry. This efficiency benefit was measured in the study. As a backdrop to the AMA-related findings, there was also the more general interest in understanding packing costs as related to volumes. The P&L data research agreed with much prior research that there are substantial economies of size within individual plants and across plants of different sizes. The greater volumes individual plants processed lower the costs of processing, and across plants of different size, lower the costs of the large plant relative to modestly smaller plants.

A More Precise Example of "Captive Supplies" and the Cost of AMAs

AMAs prior to the LMMS were referred to as "captive supplies." This was a label heading chosen in a USDA GIPSA report where this activity was first reported. Captive supplies may be an inappropriate description in that the inventory of fed cattle are not captive or under the control of the packer. The animals are committed to the packer in a formula relationship. Feedlots control the marketing of formula animals because most formulas have a premium/discount structure

[10] Including: Ward (1987, 1988, 1990, 1993), Ball and Chambers (1982), Logan and King (1965), Logan (1963), Matthews, Hahn, Nelson, Duewer, and Gustafson (1999), MacDonald, Ollinger, Nelson, and Handy (2000), Morrison-Paul (2001), and MacDonald (2003).

for meat quality. Feedlots determine the week the animals will be slaughtered, and the packer determines the day of the week. There is additional communication in that packers are informed about the placement of animals in anticipation of being marketed on the formula and the performance of animals in the feeding process. There are informal arrangements as to the total volume and variability in the timing of marketings. Feeding performance as related to weather mainly also impacts this timing. Some of these issues have been discussed earlier in the chapter.

AMAs [previously] were referred to as "captive supplies."

Captive supplies may be an inappropriate description in that the inventory of fed cattle are not captive or under the control of the packer.

Further, the prices for both negotiated cash and formula are quality adjusted equivalent. Both sides of formula arrangements do not negotiate the base price, but both sides want to trade fed cattle, and communicate that the interest is in having that happen at the market price. This has been communicated in interviews with cattle feeders and packing entities. The interest is in trading cattle, "at the market." There are not separate markets for formula and cash cattle; the base price is similar if not equivalent. USDA-AMS regional reported prices are commonly used for the region where the formula arrangement is in place. Commonly, the TX-OK-NM price, Kansas price, or Nebraska price as reported for the prior week is used. This price is the base of many formulas, and grid premiums and discounts are negotiated but infrequently. The premiums and discounts may be determined by the product end market – USDA Quality Grade or Yield Grade. The base price has changed over time – early formula arrangements used a plant-average price. Packers were willing to trade cattle through the formula at the value at which the packer was securing all other fed cattle purchases for the plant to which the cattle were sold.

Opponents of AMAs and some academics often use the following argument illustrating the negative impact AMAs have on the negotiated cash market: supplies of captive cattle allow the packer to not bid in the cash market and thereby reduce demand in the cash market and depress price in the cash market. This is the argument used with policymakers and in legal settings to mandate negotiated cash trade. It is one of the arguments in *Picket v. Tyson Fresh Meats* from 2004. However, it remains an incomplete argument as it ignores the supply side of the market. If the packer does not have to bid on the cattle, then it also is true that the cattle feeders do not have to offer the cattle for sale. AMAs do not change the market fundamentals – they do not change the total supply nor total demand. AMAs only change the channel in which animals are marketed.

The markets for negotiated cash and formula animals are also not separate markets where packers can choose to buy more or less in the formula or cash market. Separating markets is a strategy for exercising market power. Formula cattle

Table 5.2. An Illustration of How Variation in AMA Volumes Do Not Impact Cattle Market Fundamentals.

	Scenario 1: Low AMA Volume	Scenario 2: High AMA Volume	Scenario 3: Excess Fed Cattle Demand	Scenario 4: Excess Fed Cattle Supply
Feedlot Availability:	100,000	100,000	90,000	*110,000*
Formula	40,000	80,000	80,000	90,000
Cash	60,000	20,000	10,000	20,000
Packer Needs:	100,000	100,000	*100,000*	100,000
Formula	40,000	80,000	80,000	90,000
Cash	60,000	20,000	20,000	10,000

are not "captive." The cattle feeding organization decides the week the cattle will be marketed, communicates that to the packer – and it is usually not a surprise as communication between the seller and buyer is ongoing – and the packer decides the day of the week cattle will be delivered. The marketing decision belongs to the cattle feeders, and almost all formula cattle are grid marketed and thus receive premiums and discounts. Marketing cattle early will result in more discounts and fewer premiums to the cattle owner on those animals.

Table 5.2 attempts to illustrate how to think about AMA cattle in a manner that accounts for both demand and supply impacts on the market. The top three rows, after the row headings, are the feedlot availability of animals from an illustrative region. Round numbers are used for simplicity. In the first column, the cattle feeding sector in this region has 100,000 head of fed cattle available in each week. Cattle feeders will market 40,000 head through formulas and 60,000 head through negotiated cash trade. The last three rows are the packing sector's needs for a given week in this example region. Also, in the first column, the packers need 100,000 head and will procure 40,000 head through formula and 60,000 head through cash. This is because the methods are agreed upon and used by both the cattle feeding businesses and packing businesses. Whatever the packers' formula purchases are, they must match the formula sales from feedlots. Formulas cannot be used to depress demand as formula cattle are pulled from feedlot availability.

The first column illustrates a low-AMA scenario, and the second column illustrates a high-AMA scenario. In the high-AMA scenario, packers procure 80,000 head per week through formula and the cattle feeders will market exactly that amount through formula. The remaining purchases are 20,000 head through cash trade. In these two scenarios, the market is in balance as the availability of cattle from feedlots is the same as the packer needs. This illustrates that AMAs do not change market fundamentals. High versus low AMA use does not create a disadvantage or advantage for either buyers or sellers.

The issue emerges when supply and demand are out of balance. This is when cattle availability is high or low relative to packer needs. These two examples are illustrated in the third and fourth columns. In the third column, the packer has incentives to purchase 100,000 head that week but there are only 90,000 head available, with 80,000 head already accounted for via formula. Competitive pres-

sure across packing firms would cause them to bid aggressively to secure a larger portion of 10,000 head that is available to satisfy a demand for 20,000 head. This is close to the actual fed cattle and beef market scenarios in many years prior to 2016. Formula use was high and the demand for the remaining cash cattle was aggressive. This period was characterized by excess capacity in the packing industry along with increasing returns to size. Packers bid aggressively for fed cattle and this impact spilled over into the valuation of formula cattle. High or low use of AMAs does not create this market scenario, and there is essentially one price across both formula and cash cattle.

The same argument holds for the excess supply scenario. This is the fourth column of Table 5.2, and it is a reasonable facsimile of the fed cattle and beef market since late 2016 and early 2017. The packer has incentives to purchase 100,000 head that week but there are 110,000 head available. There is little competitive pressure across packing firms and cattle can be secured with relative ease. Further, it is likely there would be additional formula cattle, which are valued no different than cash. In the end, more cattle are available than are needed and the cause of the issue is this supply/demand imbalance and not the use of formulas. In this market environment, there are more animals available than needed. Cattle prices must be lowered, and beef prices also increased to encourage the processing of the excess supplies. Again, negotiated cash trade feedlots may go weeks without a bid in this environment. The problem is not how the available supply is split across marketing methods.

This section, in part, helps address the question of AMA use and market power, and reveals why the impact of AMA use on fed cattle prices are small. AMAs do impart a cost on fed cattle markets, but it is not market power related. The cost is related to the provision of information. The marketing of fed cattle through AMAs makes use of the price information discovered by those that negotiate in the cash market. Formulas are almost always based on a USDA-AMS price reported in one or more of the five major regional markets. Likewise, forward contracts make use of basis information – basis of cash relative to futures prices – where the underlying cash price is a USDA reported price. Finally, almost all cattle feeding operations benchmark transactions against some reported USDA-AMS reported price. Price discovery and the information provided through that process is a public good. The many marketing methods that do not use the cash market make use of information provided by that process. Price discovery is work, and users of AMAs avoid that work. Users of AMAs make use of cash price information, save the cost of negotiating and the cost associated with the risk of the negotiation failing, and contribute little. This is the tragedy of the commons and is a market failure. Public goods are underprovided in a market economy – this is the case with negotiated fed cattle cash price information – and it is made worse by AMAs.

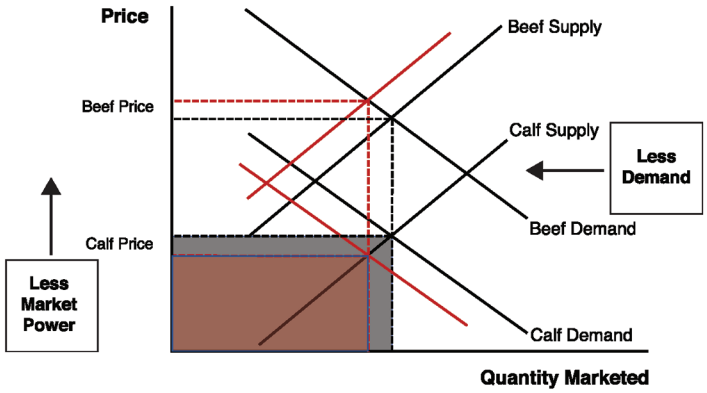
The issue is not that the market failure exists. Under provision of public goods is more or less a tautology. The examples of portions of our economy and society that benefit from the benevolence of others – without payment – are substantial and numerous. The issue is: Are the remaining and resulting cash market

transactions not accurate? Are the transactions that take place in the resulting thinned cash market biased or inefficient? Are the resulting transactions systematically incorrect? There is no research evidence of this. This is a result that cannot be found in the scientific literature. There are changes to marketing institutions that can improve market function – and limit market power – but are more sophisticated than volume mandates.

The end conclusion from this section is that AMAs do not create market power as they do not change the supply and demand fundamentals, nor do they change control of the transaction process. AMAs do impact the provision of information, but there is no evidence that the resulting prices are somehow wrong. Market participants need to work to improve market function, but there remains balance between innovation, knowledge, and mandates. Changing one thing will not improve market prices for cattle producers, nor change the supply and demand picture, but it has the potential to disrupt efficient operations and make things worse for producers.

Market-Wide Impacts of AMAs

This is the fourth and final section of this chapter to summarize findings from the LMMS. Market-wide impacts of AMAs were estimated using an economic model that can simulate the variety of market interactions in the cattle and beef industry. The demand side of the model starts with the consumer demand for beef and then demand is derived for the upstream products of boxed beef, fed cattle, and feeder



Source: Muth *et al.* (2007), Section 6, Figures 6-1 through 6-4.

Figure 5.3. Simplified Beef and Cattle Market Channel Equilibrium.

cattle. The supply side of the model starts with feeder cattle supplied by producers and then downstream supplies are derived for fed animals, boxed beef, and retail product. United States imports of fed cattle and beef exports are also included in the model. All the models are dynamic, but most of the action occurs on the supply side. Price incentives at the retail level take time to filter down to the cow-calf producer and the producer's response is different for an incentive that lasts one year when compared to multiple years.

Figure 5.3 illustrates a simplified version of this model. There are no dynamics in the graphic and the industry segments are simplified to beef at retail and cattle at the producer level. Consumers pay the retail price and buy the equilibrium quantity. Consumer expenditure is the total revenue for the beef industry, calculated by price multiplied by quantity, and is represented by the size of the largest box with dashed black lines. Marketers provide services and these services have costs. The marketing margin is the top portion of the large box. Marketers receive consumer expenditures and pay producers the cattle price multiplied by the quantity. Revenue to cattle producers is the dark shaded bottom portion of the large box. In percentage terms, this is the producer's share of the consumer dollar.

Increasing marketing costs requires the businesses that provide services between the producer and the consumer to capture a larger portion of consumer expenditures to maintain equivalent returns. Marketing costs will increase if AMAs are limited based on the interviews and the P&L analysis in the LMMS. Packers with AMA cattle have lower costs. If AMAs are limited, then marketers must pass on these cost increases – some to consumers who buy beef and the rest to producers that sell cattle. Beef prices will increase, and cattle prices will decrease. These changes are represented by the red lines in Figure 5.3. The derived supply of beef and the derived demand for cattle both will shift left. However, consumers do not take higher prices without reacting – they buy less beef. Consumer expenditures are the large box with dashed red lines. Likewise, cattle producers will supply less when prices are lower or there are fewer cattle producers. It is less profitable to produce cattle so fewer cattle are produced. The overall impact is that the marketing margin portion of consumer expenditures and industry revenue must increase, and the remaining payment to cattle producers is smaller, and is represented by the red shaded box.

The magnitude of the changes depends on the relative size of all the supply and demand elasticities. Thus, all must be estimated, and these estimations are presented in the LMMS Final Report. The reported and used elasticities are very similar to much other research. Once the elasticities are measured, the market model can be used to measure the changes in all the different prices, the change in the quantity (including imports and exports), and the changes in revenues for the different industry segments. Further, there were two additional things that were considered and incorporated into the simulation.

First, if there is market power and it is due to the use of AMAs, the cattle price may be too low initially. We know there is market power from the analysis of fed cattle transaction prices. It is not in Figure 5.3, but the market power will cause the cattle price to be too low and that piece of marketing margins can be

Table 5.3. Percent Changes in Prices and Quantities Given a 25% Reduction of AMAs in the Cattle and Beef Industry.

Variable of Interest	Short Run (1 Year)	Long Run (10 Years)
Retail Beef Price	0.46%	0.17%
Retail Beef Quantity	-0.43%	-0.24%
Wholesale Beef Price	0.70%	0.66%
Wholesale Beef Quantity	-0.82%	-0.83%
Slaughter Cattle Price	-1.43%	-0.81%
Slaughter Cattle Quantity	-0.25%	-0.38%
Feeder Cattle Price	-0.10%	-0.08%
Feeder Cattle Quantity	-0.94%	-0.34%

Table 5.4. Billions of Dollars of Changes in Producer and Consumer Surplus Given a 25% Reduction of AMAs in the Cattle and Beef Industry Measured in $2004.

Industry Segment of Interest	Short Run (1 Year)	Cumulative Long Run (10 Years)	Percent Change in Total Surplus
Consumer Surplus			
Retail Beef Consumer	-$0.371	-$2.539	-0.83%
Producer Surplus			
Retail Beef Producer	-$0.098	-$1.504	-0.36%
Wholesale Beef Producer	-$0.143	-$1.654	-0.86%
Slaughter Cattle Producer	-$0.558	-$3.886	-1.35%
Feeder Cattle Producer	-$1.069	-$5.141	-2.67%
Total of All Producers	-$1.867	-$12.184	-1.14%

given to the producer. (The idea is expressed by the text in the box.) Second, the original demand may change. Beef demand has seen improvement since 1998 and if some of this is due to improved quality and consistency facilitated by AMAs so that limiting them would adversely impact demand. This point is backed up in the LMMS in the interview results, survey results, analysis of gross margins in the P&L data, and market modeling done to estimate the elasticities. (Again, the idea is in the other text box.)

So, what is found when everything is combined, and all the market interactions are considered? Even if all market power is due to AMAs and if there is no link between AMAs and improved beef quality – both of which are unlikely – limiting the use of AMAs does economic harm to producers and consumers. The impacts are presented in Tables 5.3 and 5.4. This is the best-case scenario for producers, as all other cases have larger negative impacts. The specific policy considered in the LMMS was a 25% reduction in the use of AMAs. For the cattle and beef industry, this means formula cattle. Changes in prices and quantities are

presented in Table 5.3 for some of the different segments of the cattle and beef industry. Impacts on non-U.S. producers and consumers are not presented. Changes in the wellbeing of the beef industry and its different industry segments and in the wellbeing of the consumer are measured through the economic concepts of producer and consumer surpluses. One-year impacts and cumulative 10-year impacts are presented in Table 5.4.

Changes in producer and consumer surpluses can be a difficult concept. These are not changes to revenues or expenditures. There is more to it than revenue (costs also change), but it is also important not to get tangled up in the subtleties of the question: Are consumer surplus and producer surplus the appropriate measure? The important thing is that the surplus changes are measures of changes in economic wellbeing. The measures are well-accepted and are bottom-line dollar impacts. If you want to know what the economic impact of a policy will be on producers, then you are asking about producer surplus. Likewise, the economic impact of a policy on consumers is consumer surplus.

Let us outline producer surplus a little more first. In Figure 5.3, if marketing costs increase, then producers will receive lower prices and will produce fewer cattle. The portion of the gray box outside of the red box is the loss in revenue to producers – there is a vertical piece and a horizontal piece. The economic harm to the producer is not the entire change in revenue, however. The vertical portion of the gray box is a loss of revenue due to actions by producers (their response to lower market prices), so it is not counted. It can be viewed as producers responding rationally to economic incentives, and as the highest cost producers being pushed out of the business. The resources in the vertical portion move to other industries, lost to the beef industry, but not to the economy. So, the loss in producer surplus is the horizontal portion of the gray box. This can be viewed as lost profitability to the beef industry and lost wealth to the economy. This portion is due to the price decrease and is outside of the producer's control.

Let us turn to the consumer next. In Figure 5.3, if marketing costs increase then consumers pay higher prices and purchase less beef. The price increase is larger than the quantity decrease because beef demand is inelastic, so consumer's expenditures on beef increase. However, the economic harm to the consumer is not the change in expenditure. Like the producer, the vertical portion of the change in expenditure is the consumer rationally responding to higher prices – they buy less beef. The vertical portion is shifted to consumption of other food products. However, the change the consumer can do nothing about is the change in price. This is the loss of surplus for the consumer.

Let us look at the magnitude of the impacts on prices, quantities, and surpluses from limiting AMAs. Consumers of beef and producers of cattle are impacted the most. Consumers face higher beef prices and eat less beef. If a policy change drives up beef prices, consumers eat more chicken or pork. A policy that reduces AMA use will cost consumers close to $370 million in the short run and $2.5 billion in the long run in 2004 dollars. The impact is 0.8% of the size of total surplus the consumers get from beef.

The downstream industry segments face changing prices and quantities, but most of the impact is due to fewer cattle. Retailers and wholesalers (packers are part of the wholesale segment) see higher prices but sell smaller quantities. The cost of limiting AMAs is about $200 million in the short run and $3 billion in the long run. These impacts are just over 1% of the total producer surplus for retail and wholesale industries and are, again, in 2004 dollars.

Producers of slaughter cattle and feeder cattle (and cow-calf producers) are impacted the most. The simple fact is that the industry segment furthest upstream is the residual claimant on the consumer's dollar. Producers of cattle benefited the most from improving demand in the early-2000s and producers will be the most harmed from any policy that increases costs in the marketing system. Slaughter cattle and feeder cattle prices would decrease, and the numbers of animals produced are also less. The policy costs slaughter cattle producers $558 million in the short run and $3.9 billion in the long run. The policy costs feeder cattle producers $1 billion in the short run and $5 billion in the long run. These impacts are 1.4% and 2.67% of the total producer surplus for the slaughter cattle and feeder cattle industries.

The total cost to all producers and marketers in the cattle and beef industry was about $1.9 billion in the short run and $12 billion over ten years, in 2004 dollars. This is 6% of the total producer surplus that all industry segments capture. These losses are significant percentages of the surplus that each industry captures, and the impact is mainly leveled on feeder cattle producers. The bottom line is that the market power was a lot smaller than the efficiency savings from the use of AMAs. Limiting AMAs loses producers a lot of efficiency downstream and gains producers little.

These costs and values are in 2004 dollars and should inflate to 2021 dollars with reasonable transparency. It is also likely impacts are greater now than in the early 2000s, as AMA use is more common and more integrated into supply chains and plant management. Baseline costs are higher now and mitigation of those costs through coordination is also likely higher. Further, demand improvements as communicated by premiums and improved beef product quality are greater now and losses to the sector if these improvements are lost due to lost coordination would be greater. Simple inflation of the impacts would likely underestimate true impacts but provide information about minimum impacts.

Regional Distribution of Impacts

While the market-wide impacts are clear, it is important to also discuss potential differences in the impact across regions of the country as represented by the USDA-AMS price reporting regions. Regional differences were not considered with the LMMS. Thus, this section is not a synthesis of that report but is based on an understanding of current market conditions. Nevertheless, the regional distribution of impacts is clearly levered on specific regions and businesses.

Nationally, AMA use is about 80% of fed cattle trade. The remaining 20% of national fed cattle marketings are through negotiated cash trade. However, in the Southern Plains and specifically in the Texas-Oklahoma-New Mexico

region, just over 90% of cattle marketings are through formula methods, approximately 5% are forward contracted, and about 5% are marketed through negotiated cash trade. In the upper Midwest, 10 to 30% of cattle marketings are through formula methods, 10 to 30% are forward contracted, and about 40 to 60% are marketed through negotiated cash trade. Based on the national marketing method amounts, negotiated cash trade volumes will have to increase from 20% of the total to 30% or 50% if either of the minimum cash participation mandates is legislated. In the furthest southern plains, the negotiated cash trade will have to increase from 5% of the total to 30% or to 50%. This is between a tripling and a five-fold increase in the average use of negotiated cash trade marketing methods for the southern cattle feeding and packing industry. The costs of all mandate proposals are overwhelmingly leveled on the southern United States and producers that supply that system.

It is important to consider the lower bound usage of negotiated cash trade. Week to week variation is cash market use is substantial. Mandates are not focused on averages but require minimums, so all regions will be impacted. Clearly, the two regions that will be most impacted are Texas-Oklahoma-New Mexico and Colorado. The two regions of Nebraska and Iowa are least impacted, with Kansas falling in the middle. It is also important to not dilute the impacts through averaging. A region that is historically one in four weeks below the mandate threshold is not necessarily impacted by 25% of any total. Disruptions in supply chains in a single week or month do have the potential to persist for weeks or months.

Thus, it is reasonable that the "50/14" proposal is most like the 25% AMA reduction considered in the LMMS. The "30/14" proposal would be approximately half the impact of the 25% AMA reduction but could potentially be larger. Further, there are packing companies with well-known business models that emphasize product development, product uniqueness, and an integrated relationship with downstream businesses. These business models rely on coordination above what can be secured through procuring fed cattle in the negotiated cash market. This innovation is at risk without the additional coordination.

Summary and Conclusion

Limiting the use of AMAs by the cattle feeding and beef packing industries will decrease efficiency, increase processing and marketing costs, and has the potential to reduce beef product quality. In today's dollars, the impact is at least $10 per head for the packer and at least $25 per head for the cattle feeding industry. The dollar amounts in this summary are converting the LMMS impacts to today's dollars and placing them in context based on continued communication with the cattle feeding and beef packing industries. In today's dollars, the total direct impact to the marketing system ranges reasonably from at least $35 per head to more reasonably $65 per head. The larger amount is based on recent communications. The costs at the industry level would potentially be over $2.5 billion per year in today's dollars, with the industry making economic adjustments and reducing in size, so that over a 10-year horizon the cumulative costs would be over $16 bil-

lion. Much of the impact would be borne at the cow-calf producer level by farms and ranches. Further, the impact is distributed substantially on the industry that does business or supplies those in the Southern Plains of the United States.

A further look at AMAs and captive supplies does not change what we know about these marketing methods. The stack of benefits and strong economic justifications remain while the costs and concerns remain small. Policy directions are clear but not comfortable. Mandates create winners and losers but also will leave a marketing system worse off.

The costs at the industry level would potentially be over $2.5 billion per year in today's dollars, with the industry making economic adjustments and reducing in size, so that over a 10-year horizon the cumulative costs would be over $16 billion. Much of the impact would be borne at the cow-calf producer level by farms and ranches. Further, the impact is distributed substantially on the industry that does business or supplies those in the Southern Plains of the United States.

So, what are the research needs to support policy actions? What are the needs to assure producers their interests are not being trampled? One of the main research needs is support for a long-term research program into the market organization and performance of cattle and beef markets. (There is also a supporting need for research into the market organization and performance of hog and pork markets and sheep and lamb markets. The cattle and beef markets are less problematic from a structural standpoint.) There is not long-term support for this type of research like there is for issues related to crop production, farming, crop usage, product development, and trade.

There is a need for updating the 2007 RTI GIPSA LMMS. The economic fundamentals have not changed, but the price levels, total dollar magnitudes, and the percentage of animals moving through the marketing system via AMAs have. The beef packing industry is a substantially concentrated industry – although the levels of concentration have not changed markedly since the 1990s – and because of this, there is a need for long-term monitoring. Any industry restructuring or growth and change continues to emphasize economies of size rather than some other form of innovation. There is a reasonable need for continued research on the question of power versus these economies.

Prior research has been coordinated and delivered to the USDA Packers and Stockyards Administration (P&S). This is the coordinating administrative branch. P&S also can compel provision of data from the packing industry for analysis, but the period of the P&S authority is limited to 18 months. There is a need for longer examination of price discovery. All livestock industries participate to some

Mandates create winners and losers but also will leave a marketing system worse off.

degree in mandatory price reporting to USDA-AMS and AMS has data from 2002 until the present. Price discovery questions eliciting the call for policy action can be examined in this data; additionally, questions about bidding, the number of market participants, and the impact on farm gate prices could be answered if this data were available. Future studies will need congressional funding and authority to examine USDA-AMS LMR price data. Future funding also needs to be made more persistent.

Finally, there is a need for a more formal examination of the meat supply chain. Figure 5.3 is an accurate representation of the market channel from an equilibrium perspective. While the supply models are appropriate for driving market dynamics, there is a need to specifically study the supply chains. The market channel model does not well-integrate economies of size within the plant nor coordination of multiple plant firms with economies of size. The market channel model also does not well-account for product differentiation and the underlying changing product quality, branding, and credence characteristics that are emerging and becoming more prevalent. There is a need to understand, recognize, and measure coordination in the supply chain so that costs of policies that will disrupt the supply chain can be better understood.

There are substantially less expensive methods for improving the quality of price discovery in fed cattle markets than by legislating mandates, but these mandates do offer an unprecedented experiment. The existing research is clear but are also conclusions drawn for a world that has not happened. Measurements from the real world must be made and extended to the policy proposed through economic concepts. That is the nature of and the common approach to this type of question. However, the mandate proposals, if enacted, will allow researchers to test if our economic thinking is correct. Actual cost and benefits of the policy can and will be measured.

References

Azzam, A.M. and D.G. Anderson. Assessing Competition in Meatpacking: Economic History, Theory, and Evidence. U.S. Department of Agriculture, GIPSA-RR 96-6, May 1996.

Azzam, A.M. "Testing the Monopsony-Inefficiency Incentive for Backward Integration." American Journal of Agricultural Economics 78(1996): 585-590.

Azzam, A.M. "Measuring Market Power and Cost-efficiency Effects of Industrial Concentration." Journal of Industrial Economics 45(1997): 377-386.

Azzam A.M. "Captive Supplies, Market Conduct, and the Open-Market Price." American Journal of Agricultural Economics 80(1998): 76-83.

Azzam, A.M. and E. Pagoulatos. "Testing Oligopolistic and Oligsonistic Behaviour: An Application to the U.S. Meat-Packing Industry." Journal of Agricultural Economics 41(1990): 362-370.

Azzam, A.M. and J.R. Schroeter. "Implications of Increased Regional Concentration and Oligopsonistic Coordination in the Beef Packing Industry." Western Journal of Agricultural Economics 16(1991): 374-381.

Azzam, A.M. and J.R. Schroeter. "The Tradeoff Between Oligopsony Power and Cost Efficiency in Horizontal Consolidation: An Example from Beef Packing." American Journal of Agricultural Economics 77(1995): 825-836.

Bain, J.S. Industrial Organization, Second Edition. New York: John Wiley & Sons, 1968.

Ball, V.E. and R.G. Chambers. "An Economic Analysis of Technology in the Meats Products Industry." American Journal of Agricultural Economics 64(1982): 699-709.

Boyer, C.N. and B. W. Brorsen. "Changes in Beef Packers' Market Power after the Livestock Mandatory Price Reporting Act: An Agent-Based Auction." American Journal of Agricultural Economics 95(2013): 859.

Bresnahan, T.F. "Empirical Studies of Industries with Market Power," in Handbook of Industrial Organization Vol. II, eds. R. Schmalensee and R.D. Willig, Amsterdam: Elsevier Science Publishers, 1989.

Brorsen, B.W., J.R. Fain, and J.G. Maples. "Alternative Policy Responses to Increased Use of Formula Pricing." Journal of Agricultural and Food Industrial Organization 16(2018): article 20170008.

Crespi, J.M. and R.J. Sexton. "Bidding for Cattle in the Texas Panhandle." American Journal of Agricultural Economics 86(2004): 660-674.

Crespi, J.M., T. Xia, and R. Jones. "Competition, Bargaining Power, and the Cattle Cycle." American Journal of Agricultural Economics 92(2010): 685-697.

Boyer, C.N. and B.W. Brorsen. "Changes in Beef Packers' Market Power after the Livestock Mandatory Price Reporting Act: An Agent-based Auction." American Journal of Agricultural Economics 95(2013): 859-876.

Liu, Y., M.K. Muth, S.R. Koontz, and J.D. Lawrence. "The Role of Marketing Arrangements and Valuation Methods in Improving Beef Quality." Agribusiness: An International Journal, 25(Spring 2009): 147-163.

Love, H.A. and D.M. Burton. "A Strategic Rationale for Captive Supplies." Journal of Agricultural and Resource Economics 24(1999): 1-18.

Elam, E. "Cash Forward Contracting vs. Hedging of Fed Cattle, and the Impact of Cash Contracting on Cash Prices." Journal of Agricultural and Resource Economics 17(1992): 205-217.

Hall, L., A. Schmitz, and J. Cothern. "Beef Wholesale - Retail Marketing Margins and Concentration." Economica 46(1979): 265-300.

Ji, I., and C. Chung. "Assessment of Market Power and Cost Efficiency Effects in the U.S. Beef Packing Industry." Journal of Rural Development 39(2016): 35-58.

Ji, I., C. Chung, and J. Lee. "Measuring Oligopsony Power in the U.S. Cattle Procurement Market: Packer Concentration, Cattle Cycle, and Seasonality." Agribusiness: An International Journal 33(2017): 16-29.

Kambhampaty, S.M., P.J. Driscoll, W.D. Purcell, and E.B. Peterson. Effects of Concentration on Prices Paid for Cattle. U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration, RR 96-4. June 1996.

Koontz, S.R., P. Garcia, and M.A. Hudson. "Meatpacker Conduct in Fed Cattle Pricing: An Investigation of Oligopsony Power." American Journal of Agricultural Economics 75(1993): 537-548.

Koontz, S.R. and P. Garcia. "Meat-Packer Conduct in Fed Cattle Pricing: Multiple-Market Oligopsony Power." Journal of Agricultural and Resources Economics 22(1997): 87-103.

Koontz, S.R. and J.D. Lawrence. "Impacts of Alternative Marketing Agreement Cattle Procurement Volumes on Packer Costs: Evidence from PlantLevel P&L Data." Agribusiness: An International Journal 26(2010): 1-24.

Logan, S.H. "The Effects of Short Run Variations in Supplies of Cattle and Costs of Slaughtering in California." Journal of Farm Economics 45(1963): 625 630.

Logan, S.H. and G.A. King. Economies of Scale in Beef Slaughter Plants. Giannini Foundation Research Report 260. University of California-Berkeley, CA, 1965.

Lopez, R.A., A.M. Azzam, and C. Liron-Espana. "Market Power and/or Efficiency: A Structural Approach." Review of Industrial Organization 20(2002): 115-126.

Lopez, R.A., A.M. Azzam, and C. Liron-Espana. "Social Welfare and the Market Power Efficiency Tradeoff in U.S. Food Processing: A Note." Journal of Agricultural and Food Industrial Organization 1(2003): Article 5.

MacDonald, J.M. "Beef and Pork Packing Industries." The Veterinary Clinics of North America – Food Animal Practice 19(2003): 419-443.

MacDonald, J.M., M.E. Ollinger, K.E. Nelson, and C.R. Handy. "Consolidation in U.S. Meatpacking." U.S. Department of Agriculture, Economic Research Service, Agricultural Economics Report 785. February 2000.

Marion, B.W. and F.E. Geithman. "Concentration-Price Relations in Regional Fed Cattle Markets." Review of Industrial Organization 10(1995): 1-19.

Matthews Jr., K.H., W.F. Hahn, K.E. Nelson, L.A. Duewer, and R.A. Gustafson. *U.S. Beef Industry: Cattle Cycles, Price Spreads, and Packer Concentration.* U.S. Department of Agriculture, Economic Research Service, Technical Bulletin 1874. April 1999.

Menkhaus, D.J., J.S. St. Clair, and A.Z. Ahmaddaud. "The Effects of Industry Structure on Price: A Case in the Beef Industry." Western Journal of Agricultural Economics 6(1981): 147-153.

Muth, M.K., G. Brester, J. Del Roccili, S.R. Koontz, B. Martin, N. Piggott, J. Taylor, T. Vukina, M. Wohlgenant. "Spot and Alternative Marketing Arrangements in the Livestock and Meat Industries B Interim Report." Prepared for The Grain Inspection, Packers, and Stockyards Administration, USDA Contract No. 53-32KW-4-028. Prepared by RTI International, RTI Project Number 09230. July 2005.

Muth, M.K., S.C. Cates, M. Coglaiti, S. Karns, Y. Liu, J. Taylor, C. Viator, J. Del Roccili, M. Asher, S.R. Koontz, J. Lawrence, J. Schroeter, G. Brester, J. Atwood, J. Marsh, and B. Martin. GIPSA Livestock and Meat Marketing Study – Volume 3: Fed Cattle and Beef Industry – Final Report. Prepared for Grain Inspection, Packers, and Stockyards Administration, USDA Contract No. 53-32KW-4-028. RTI International, RTI Project Number 09230. January 2007.

Muth, M.K., Y. Liu, S.R. Koontz, and J.D. Lawrence. "Impacts of Alternative Marketing Agreement Cattle Procurement Volumes on Fed Cattle Transaction Prices and Risk." Journal of Agricultural and Resource Economics, 33(2008): 118-135.

Muth, M.K. and M.K. Wohlgenant. "A Test for Market Power Using Marginal Input and Output Prices with Application to the U.S. Beef Processing Industry." American Journal of Agricultural Economics 81(1999): 638 43.

Muth, M.K. and M.K. Wohlgenant. "Measuring the Degree of Oligopsony Power in the Beef Packing Industry in the Absence of Marketing Input Quantity Data." Journal of Agricultural and Resources Economics 24(1999): 299-312.

Paul, C.J. Morrison. "Market and Cost Structure in the U.S. Beef Packing Industry: A Plant-Level Analysis." American Journal of Agricultural Economics 83(2001): 64-76.

Paul, C.J. Morrison. "Cost Economies and Market Power: The Case of the U.S. Meat Packing Industry." The Review of Economics and Statistics 83(2001): 531-540.

Quail, G., B. Marion, F. Geithman, and J. Marquardt. "The Impact of Packer Buyer Concentration on Live Cattle Prices." University of Wisconsin, NC-117 Working Paper 89, Madison, WI, 1986.

Schroeder, A. Barkley, and S. Koontz. U.S. Department of Agriculture, GIPSA-RR 96-3, May 1996.

Schroeder, T.C., R. Jones, J. Mintert, and A.P. Barkley. "The Impact of Forward Contracting on Fed Cattle Prices." Review of Agricultural Economics 15(1993): 325-337.

Schroeter, J.R. "Estimating the Degree of Market Power in the Beef Packing Industry." Review of Economics and Statistics 70(1988): 158-162.

Schroeter, J.R. and A.M. Azzam. "Measuring Market Power in Multi-Product Oligopolies: The U.S. Meat Industry." Applied Economics 22(1990): 1365-1376.

Schroeter, J.R. and A.M. Azzam. "The Tradeoff between Oligopsony Power and Cost Efficiency in Horizontal Consolidation: An Example from Beef Packing." American Journal of Agricultural Economics 77(1995): 825-836.

Schroeter, J.R. and A.M. Azzam. "Econometric Analysis of Fed Cattle Procurement in the Texas Panhandle." U.S. Department of Agriculture, Grain Inspection, Packers and Stockyards Administration, Unpublished report. November 1999.

Schroeter, J.R. and A.M. Azzam. "Captive Supplies and the Spot Market Price of Fed Cattle: The Plant Level Relationship." Agribusiness: An International Journal 19(2003):489 504.

Schroeter, J.R. and A.M. Azzam. "Captive Supplies and the Spot Market Price of Fed Cattle: The Role of Delivery Timing Incentives." Agribusiness: An International Journal 20(2004):347-362.

Schroeter, J.R., A.M. Azzam, and M. Zhang. "Measuring Market Power in Bilateral Oligopoly: The Wholesale Market for Beef." Southern Economic Journal 66(2000): 526-547.

Stiegert, K.W., A.M. Azzam, and B.W. Brorsen. "Markdown Pricing and Cattle Supply in the Beef Packing Industry." American Journal of Agricultural Economics 75(1993): 549-558.

Ward, C.E. "Short Period Pricing Models for Fed Cattle and Impacts of Wholesale Carcass Beef and Live Cattle Futures Market Prices." Southern Journal of Agricultural Economics 13(1981): 125 132.

Ward, C.E. "Relationship Between Fed Cattle Market Shares and Prices Paid by Beefpackers in Localized Markets." Western Journal of Agricultural Economics 7(1982): 79-86.

Ward, C.E. "Productivity - Concentration Relationship in the U.S. Meatpacking Industry." Southern Journal of Agricultural Economics 19(1987): 217-222.

Ward, C.E. "Inter-firm Differences Between Fed Cattle Prices in the Southern Plains." American Journal of Agricultural Economics 74(1992): 480-485.

Ward, CE. Meatpacking Competition and Pricing. Virginia Tech University, Research Institute on Livestock Pricing, July 1988.

Ward, C.E. "Meatpacking Plant Capacity and Utilization: Implications for Competition and Pricing." Agribusiness: An International Journal 6(1990):1 65-73.

Ward, C.E. "Comparative Analysis of Cattle Slaughtering and Fabricating Costs." Agribusiness: An International Journal 9(1993): 441-51.

Ward, C.E. "A Review of Causes for and Consequences of Economic Concentration in the U.S. Meatpacking Industry." Current Agriculture, Food & Resource Issues 3(2002): 1-28.

Ward, C.E., S.R. Koontz, and T.C. Schroeder. "Short-run Captive Supply Relationships with Fed Cattle Transaction Prices." Role of Captive Supplies in Beef Packing. C. Ward, T.

Ward, C.E., S.R. Koontz, and T.C. Schroeder. "Impacts from Captive Supplies on Fed Cattle Transaction Prices." Journal of Agricultural and Resource Economics 23(1998): 494-514.

Williams, G.W., O. Capps, Jr., H.A. Love, H.L. Goodwin, E.E. Davis, and J.P. Nichols. Price Determination in Slaughter Cattle Procurement. U.S. Department of Agriculture, GIPSA-RR 96-2, September 1996.

Xia, T. and R.J. Sexton. "The Competitive Implications of Top of the Market and Related Contract Pricing Clauses." American Journal of Agricultural Economics 86(2004):124 138.

Zhang, M. and B.W. Brorsen. "The Long Run and Short Run Impact of Captive Supplies on the Spot Market Price: An Agent-Based Artificial Market." American Journal of Agricultural Economics 92(2010): 1181-1194.

Zhang, M. and R.J. Sexton. "Captive Supplies and the Cash Market Price: A Spatial Markets Approach." Journal of Agricultural and Resources Economics 25(2000): 88-108.

Chapter 6

Market Reporting and Transparency

Joshua G. Maples and Kenneth H. Burdine

Introduction

The reliable reporting of trusted market data is critical for cattle market participants. Market price levels, especially as they relate to other markets, are the key driver of resource allocation and price discovery. This process can be hindered if available market information is limited or irregular. Without regular price reporting in which participants are confident, the dynamic process of cattle buyers and sellers discovering the market-clearing price would be subject to inefficiency. Market reporting alone is not price discovery; however, it certainly contributes to the price discovery process.

Regular and reliable reporting of live cattle transactions provide a more transparent view of supply and demand conditions than would be possible without it. Publicly reporting market transactions increases the information available to all participants. Live cattle market reporting is generally a public good in that everyone can consume it and any one participant's use of it does not exclude others from using it. A primary motivation for government involvement in collecting and disseminating this information is that the private sector would be unlikely to provide these data at a socially optimal level.

Market information available to everyone can improve market efficiency and help markets more quickly reach the market clearing price (C-FARE, 2013). Market participants generally look to public sources of data for information because they have confidence the data are reliable, complete, and free of any manipulation. Seminal research in this area has shown that when market participants possess incomplete information, price dispersion can occur (Stigler, 1961). Reductions in public cash market information has also been found to increase price variance and decrease production efficiency (Anderson *et al.*, 1998). So, if price data are perceived as credible and accurate, it can speed up market convergence, which is the process by which prices gravitate to a market level.

Publicly reported market information can also reduce uncertainty. The C-FARE 2013 publication noted that many agricultural producers and processors are risk averse. For a risk averse participant, increased uncertainty tends to lead to lower output than the competitive level (Newberry and Stiglitz, 1981). Boyer and Brorsen (2013) showed that cattle sellers benefit from publicly available data

because it reduces price uncertainty. This reduction in uncertainty led to reduced bid shading and more competitive bidding from buyers.

There are many motivations for the collection and public dissemination of market data for agricultural markets, including live cattle markets. In this chapter, we discuss market reporting for live cattle. We begin with the background and evolution of the current market reporting system. This is followed by an overview of the data collected, how it is reported and limitations on reporting due to confidentiality. Next, we pay particular attention to the types of transactions that are reported, which has garnered much attention in recent public debates. We discuss how these transaction types are defined and how they could be used if incentives to choose one over another existed. Finally, we discuss the concept of a contract library and its potential to increase transparency for certain types of cattle transactions.

Background

The desire and need for market reporting of cattle transactions likely go back as far as cattle trading in general. In the United States, these efforts gained structure in the 1940s with the *Agricultural Marketing Act of 1946*. This effort led to voluntary reporting of cattle market prices and was the general structure for price reporting for more than 50 years. The cattle and beef industry, and other livestock industries, continued to evolve over the decades during which voluntary reporting was the standard. Most of the concerns that exist today also existed then. Improvements to market reporting as a method for more transparent markets were often discussed and changes were made. These concerns were again highlighted in the late 1970s with hearings before Congressional subcommittees across multiple years.

In a particular 1979 hearing before the Subcommittee on Livestock and Grains of the Committee on Agriculture in the U.S. House of Representatives, statements from USDA's Agricultural Marketing Service (AMS) administrators addressed mandatory price reporting. Among many other issues, this discussion included thin markets and formula trading (Committee on Agriculture, 1979). At this hearing over forty years ago, it was "strongly emphasized" that "price reporting service improvements alone will not resolve problems resulting from a thin market." It was also discussed that mandatory price reporting was "premature" at that point and could be avoided through increased voluntary reporting. There was much more that was discussed in this hearing that is still applicable to cattle markets today.

In 1999, the calls for mandatory price reporting led to Congressional action. *The Livestock Mandatory Reporting Act* (LMRA) was passed by Congress in 1999 and the system began in 2001. The act mandated USDA-AMS to implement a new mandatory system of price reporting. The LMRA modified the *Agricultural Marketing Act of 1946* and is up for reauthorization about every five years, though there have been challenges with reauthorization. There is no "fall-back" legislation similar to those in farm bills. This recurring sunset provision allows

frequent input by market participants but can lead to issues with longer term market reporting needs. Wachenheim and DeVuyst (2001) discussed the advantages and disadvantages of mandatory price reporting and the debate at the time.

Koontz and Ward (2011) provide an excellent literature review and synthesis of market information research discussing the change from voluntary to mandatory reporting. In particular, they note that some of the calls for mandatory price reporting were to expose "sweetheart" deals and that there was no referenced research to support those positions. Perry *et al.* (2005) also discussed the impact of the mandatory requirement on fed cattle markets and found that, "prices received with formula purchasing arrangements, which were not comprehensively reported under the voluntary system, appear to closely match prices received with negotiated purchases."

Livestock Mandatory Reporting (LMR) is the primary vehicle for cattle market price reporting in the United States. LMR requires packers to submit purchases and sales of livestock and livestock products to AMS. LMR originated from producers seeking greater transparency in livestock markets and this effort has broadly been accomplished. Pertinent to the current public discussion, in addition to the reporting of cash transactions, prices and volumes also began to be gathered under LMR for non-cash market transactions such as forward contracts and marketing agreements. These non-cash transactions were not captured under the voluntary price reporting system as they were considered by the AMS to be private treaties and outside of the purview of reporting the cash market (Koontz and Ward 2011). Through their inclusion, comparison of negotiated prices and non-negotiated prices was possible, which brought another level of increased transparency.

Of course, the cattle industry has continued to evolve since 2001. Changes and enhancements have been proposed and continue to be implemented. Purcell, Schroeder, and Tonsor (2016) provide an excellent discussion of the structural changes in livestock production and packing and the implications for LMR.

While we discuss some potential changes in this chapter, it is clear that LMR has significantly contributed to increased market transparency. Regardless of any issues with current LMR or needed adjustments, the data it provides is far preferred to not having any public price data at all.

LMR for Live Cattle

The amount of LMR cattle data that is reported on a regular basis is substantial. In a presentation to stakeholder groups in 2016 to 2017, AMS stated that LMR covered 92 percent of fed cattle transactions, 33 percent of cow and bull transactions, and covered 38 live cattle plants (Pitcock, 2016). This amounted to 5,000 to 8,000 records per day that fed between 29 and 53 reports on a daily basis. Four reporters carried out these tasks in 2016 – two reporters covered negotiated cash and negotiated grid base, one reporter covered formula, forward, and negotiated net purchases, and one reporter covered cows and bulls.

For LMR purposes, the term packer includes only a federally inspected cattle processing plant that slaughtered an average of 125,000 head of cattle per year

during the immediately preceding five calendar years. Smaller packers are not subject to LMR reporting requirements.[1]

LMR relies on submitted forms from packers to compile, and ultimately release, data to the public. Daily reporting requirements include the LPS-113 form which packers must submit twice per day at 10:00 am and 2:00 pm central time (Figure 6.1). This form must contain all fed cattle transactions that occurred since the previous reporting period. A similar form, LPS-114, requires twice daily reporting of the volume of fed cattle committed and delivered (Figure 6.1).

While an example is not included in this book, there are also weekly requirements including LPS-115A and LPS-115B which require packers to report head count totals of Imported and Domestic Formula, Forward Contract, Negotiated Cash, and Negotiated Grid cattle slaughtered in the prior week and packer owned cattle (Figure 6.1). Another weekly report includes the premiums and discounts for various standards.

Packers are expected to meet specific deadlines for each report and AMS reporters will review the submitted forms to ensure all expected plants have reported. All lots of fed cattle with 10 head or fewer are automatically excluded. If a reporter sees an invalid record or notices a data outlier, they will contact the packer to learn more or correct the data prior to generating reports. Some transactions that appear to be outliers (e.g. price appears too high or too low) may be excluded from reports while the reporters check with the packer to confirm the price is correct.

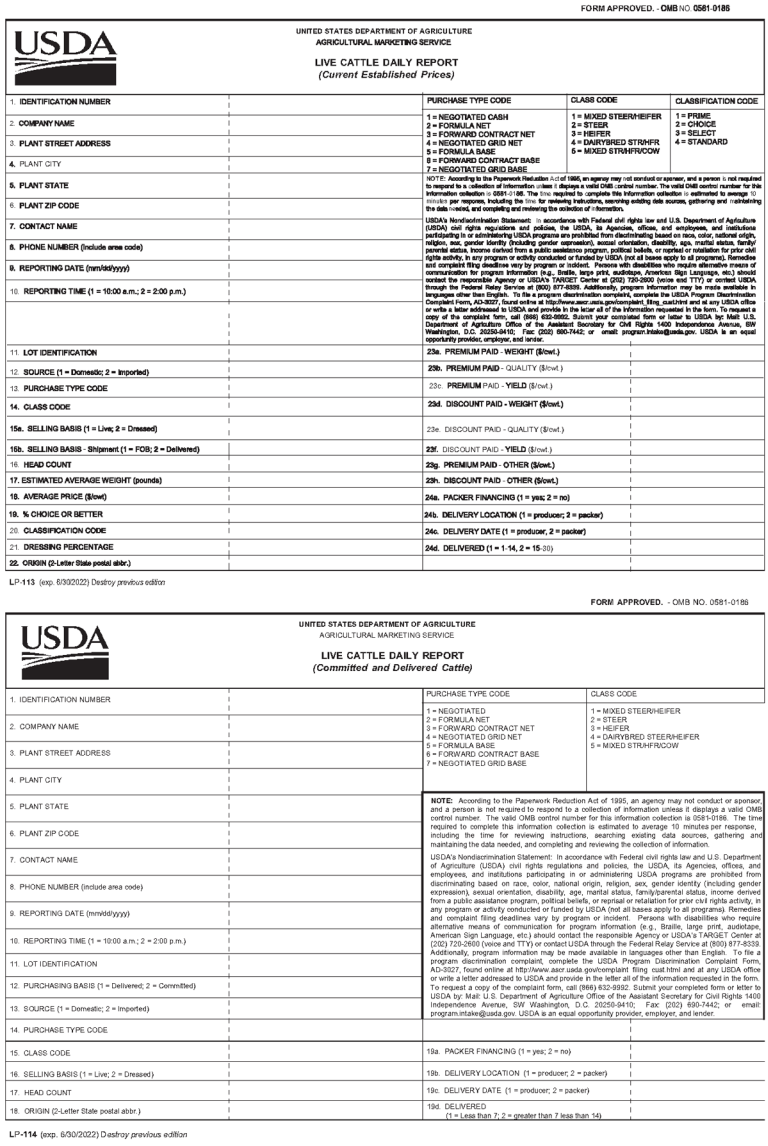
Two reports summarize excluded transactions each month. One is made for boxed beef cutout and boxed beef cuts (USDA, AMS, 2021a) and another is made for negotiated slaughter cattle purchases (USDA, AMS, 2021b).

Packers are also subject to two audits each year where they must provide documentation to the auditors (Koop, 2016). The audited information includes buy sheets, grading or settlement sheets, scale tickets, kill line-ups, sales invoices, and copies of checks, among other documentation. These audits help to ensure that packers are reporting correctly and are in compliance with requirements.

Confidentiality Guidelines for LMR

Confidentiality guidelines are in place to protect the identity of individuals and individual firms through the Livestock Mandatory Price Reporting Program. At the onset of the LMR program, AMS originally adopted a policy that three entities must report in a given area and that no entity could account for more than 60% of the market volume. However, this resulted in significant exclusions. Starting in 2001, a new confidentiality guideline was established, referred to as the 3/70/20 guideline. It requires that the following conditions be met over the most recent 60-day period: (1) three reporting entities provide data at least 50% of the time, (2) no single entity provides more than 70% of the data for a report, (3) and no single entity is the sole reporting entity for an individual report more than 20% of the time. This change resulted in significant reductions in exclusions (Greene 2019).

[1] The federal regulations covering LMR for fed cattle can be found in 7 C.F.R. § 59 or online at https://www.govinfo.gov/content/pkg/CFR-2011-title7-vol3/pdf/CFR-2011-title7-vol3-part59.pdf



FORM APPROVED. - OMB NO. 0581-0186

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

LIVE CATTLE DAILY REPORT
(Current Established Prices)

		PURCHASE TYPE CODE	CLASS CODE	CLASSIFICATION CODE
1. **IDENTIFICATION NUMBER**		**1 = NEGOTIATED CASH** **2 = FORMULA NET** **3 = FORWARD CONTRACT NET** **4 = NEGOTIATED GRID NET** **5 = FORMULA BASE** **6 = FORWARD CONTRACT BASE** **7 = NEGOTIATED GRID BASE**	**1 = MIXED STEER/HEIFER** **2 = STEER** **3 = HEIFER** **4 = DAIRYBRED STR/HFR** **5 = MIXED STR/HFR/COW**	**1 = PRIME** **2 = CHOICE** **3 = SELECT** **4 = STANDARD**
2. **COMPANY NAME**				
3. **PLANT STREET ADDRESS**				
4. PLANT CITY				
5. **PLANT STATE**				
6. **PLANT ZIP CODE**				
7. **CONTACT NAME**				
8. **PHONE NUMBER (Include area code)**				
9. **REPORTING DATE (mm/dd/yyyy)**				
10. **REPORTING TIME (1 = 10:00 a.m.; 2 = 2:00 p.m.)**				

NOTE: According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0186. The time required to complete this information collection is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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11. **LOT IDENTIFICATION**		**23a. PREMIUM PAID - WEIGHT ($/cwt.)**	
12. **SOURCE (1 = Domestic; 2 = Imported)**		**23b. PREMIUM PAID** - QUALITY ($/cwt.)	
13. **PURCHASE TYPE CODE**		23c. **PREMIUM** PAID - **YIELD** ($/cwt.)	
14. **CLASS CODE**		**23d. DISCOUNT PAID - WEIGHT ($/cwt.)**	
15a. **SELLING BASIS (1 = Live; 2 = Dressed)**		23e. DISCOUNT PAID - QUALITY ($/cwt.)	
15b. **SELLING BASIS - Shipment (1 = FOB; 2 = Delivered)**		**23f.** DISCOUNT PAID - **YIELD** ($/cwt.)	
16. **HEAD COUNT**		**23g. PREMIUM PAID - OTHER ($/cwt.)**	
17. **ESTIMATED AVERAGE WEIGHT (pounds)**		**23h. DISCOUNT PAID - OTHER ($/cwt.)**	
18. **AVERAGE PRICE ($/cwt)**		**24a. PACKER FINANCING (1 = yes; 2 = no)**	
19. **% CHOICE OR BETTER**		**24b. DELIVERY LOCATION (1 = producer; 2 = packer)**	
20. **CLASSIFICATION CODE**		**24c. DELIVERY DATE (1 = producer, 2 = packer)**	
21. **DRESSING PERCENTAGE**		**24d. DELIVERED (1 = 1-14, 2 = 15-30)**	
22. **ORIGIN (2-Letter State postal abbr.)**			

LP-113 (exp. 6/30/2022) *Destroy previous edition*

FORM APPROVED. - OMB NO. 0581-0186

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

LIVE CATTLE DAILY REPORT
(Committed and Delivered Cattle)

		PURCHASE TYPE CODE	CLASS CODE
1. IDENTIFICATION NUMBER		1 = NEGOTIATED 2 = FORMULA NET 3 = FORWARD CONTRACT NET 4 = NEGOTIATED GRID NET 5 = FORMULA BASE 6 = FORWARD CONTRACT BASE 7 = NEGOTIATED GRID BASE	1 = MIXED STEER/HEIFER 2 = STEER 3 = HEIFER 4 = DAIRYBRED STEER/HEIFER 5 = MIXED STR/HFR/COW
2. COMPANY NAME			
3. PLANT STREET ADDRESS			
4. PLANT CITY			
5. PLANT STATE			
6. PLANT ZIP CODE			
7. CONTACT NAME			
8. PHONE NUMBER (include area code)			
9. REPORTING DATE (mm/dd/yyyy)			
10. REPORTING TIME (1 = 10:00 a.m.; 2 = 2:00 p.m.)			
11. LOT IDENTIFICATION			
12. PURCHASING BASIS (1 = Delivered; 2 = Committed)			
13. SOURCE (1 = Domestic; 2 = Imported)			
14. PURCHASE TYPE CODE			
15. CLASS CODE		19a. PACKER FINANCING (1 = yes; 2 = no)	
16. SELLING BASIS (1 = Live; 2 = Dressed)		19b. DELIVERY LOCATION (1 = producer; 2 = packer)	
17. HEAD COUNT		19c. DELIVERY DATE (1 = producer; 2 = packer)	
18. ORIGIN (2-Letter State postal abbr.)		19d. DELIVERED (1 = Less than 7; 2 = greater than 7 less than 14)	

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LP-114 (exp. 6/30/2022) *Destroy previous edition*

Source: https://mpr.ams.usda.gov/mpr/manuals/help/lsFormInfo.htm?selItem=lp-113&formName=LS113&product=livestock.

Figure 6.1. USDA-AMS Mandatory Livestock Reporting Forms LP-113 and LP-114.

While the 3/70/20 rule was a significant improvement over 3/60 in terms of the amount of data released, there are still times when confidentiality precludes release. For example, the weekly weighted average live cattle prices in Colorado have been rarely reported since 2018 because there are often not three reporting entities. Unlike the exclusions based on price mentioned above, there is no report of transactions excluded for confidentiality because it would be fairly easy to "back-out" to which packer the excluded transactions belong.

It is critical to recall that current LMR transaction types were not designed to enforce volume requirements. In particular, the definitions are useful to understand the market but may have enough overlap to allow switching between formula and negotiated without significantly changing how a transaction occurred.

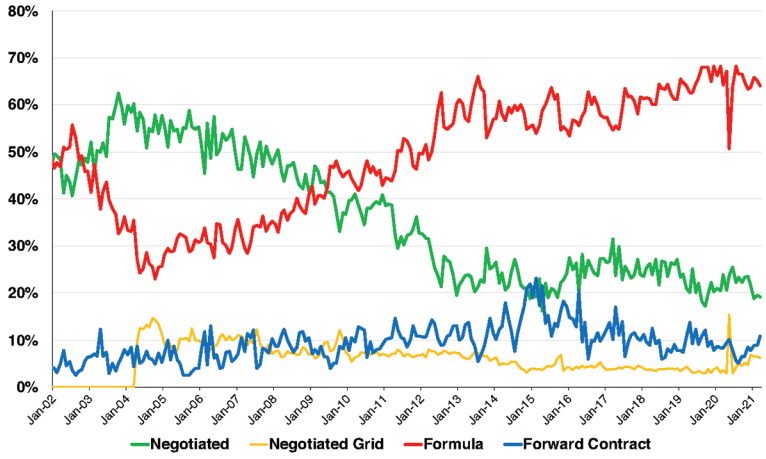
The primary driver of confidentiality requirements is legality. *The Livestock Mandatory Reporting Act of 1999* specifically requires the USDA to publish mandatory data on livestock and meat price trends, contracting agreements, and supply and demand conditions "in a manner that protects the identity of reporting entities and preserves the confidentiality of proprietary transactions." We acknowledge these legal reasons and the need to protect the identity of reporting firms.

However, given the goal of this chapter is to discuss market reporting and transparency, we focus simply on the economic implications. Any changes to confidentiality requirements will require careful study of unintended consequences. This was true when the confidentiality rules changed from the original 3/60 rule to 3/70/20. Potential unintended economic consequences of this change have been debated in depth. While these concerns might also exist if confidentiality requirements are further relaxed, these concerns may not offset the potential benefit of more complete and transparent information available for price discovery and price determination.

With respect to confidentiality, it is also important to understand that as additional details are required, the likelihood of confidentiality becoming an issue increases. This occurs because total market volume is spread across the various transaction types that are reported. The more specific the type of transaction that is required to be reported, the fewer transactions there will be to fall into that category. The fewer the transactions that fall into a given reporting category, the more likely something like the 3/70/20 rule will be breeched. In order to better understand this issue, a discussion of the various types of live cattle transactions is warranted.

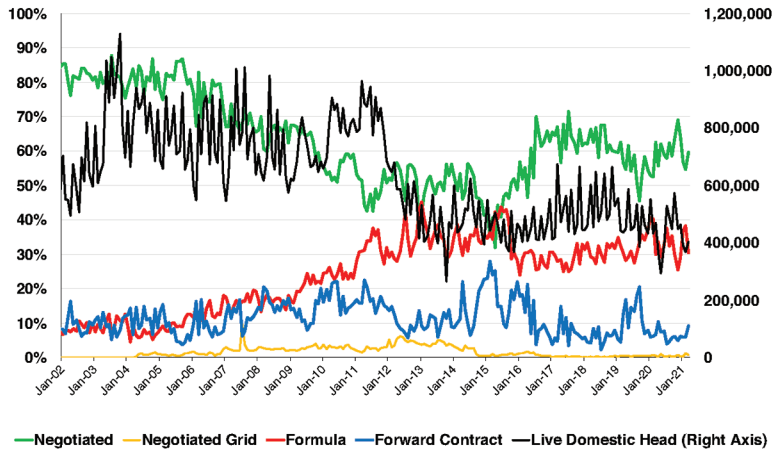
Live Cattle Transaction Types

The data by transaction type was an important result of the change from voluntary to mandatory price reporting in 2001. Figures 6.2, 6.3, and 6.4 show the percentage of domestic cattle slaughtered by transaction type for total, live basis, and dressed basis, respectively. These transaction types were included in LMR to



Source: USDA-AMS.

Figure 6.2. Total domestic cattle slaughter percentage by transaction type. 2002 - 2021.



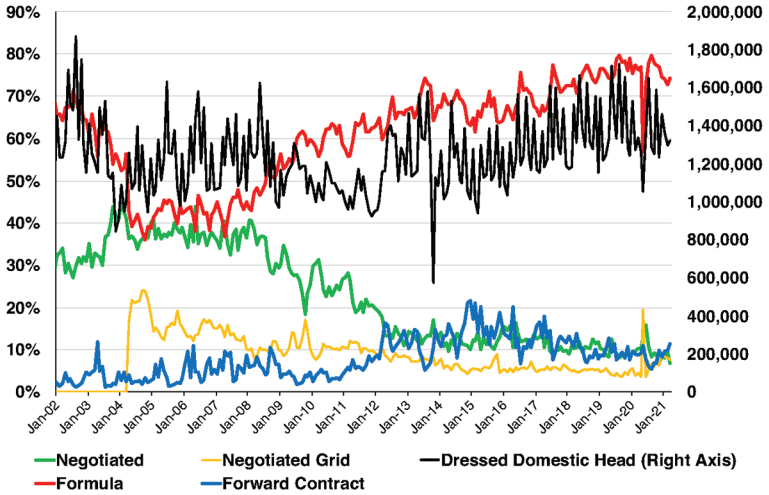
Source: USDA-AMS.

Figure 6.3. Live basis domestic cattle slaughter percentage by transaction type. 2002 - 2021.

gain a better understanding of how cattle are traded. Currently, much discussion centers around using these transaction types to regulate volumes. Because the data were not collected, this was a discussion that was not possible in previous decades when producer pushes for change led to action.

While the addition of these transaction types increased market transparency, it is critical to recall that current LMR transaction types were not designed to enforce volume requirements. In particular, the definitions are useful to understand the market but may have enough overlap to allow switching between formula and negotiated without significantly changing how a transaction occurred. The complete definitions for cattle are:

- *Negotiated purchase* is a cash or "spot" market purchase by a packer of livestock from a producer under which the base price for the livestock is determined by seller-buyer interaction and agreement on a delivery day. Cattle are delivered to the packer within 30 days of the agreement.
- *Negotiated grid purchase* is the negotiation of a base price, from which premiums are added and discounts are subtracted, determined by seller-buyer interaction and agreement on a delivery day. Cattle are usually delivered to the packer not more than 14 days after the date the livestock are committed to the packer.
- *Forward contract* is an agreement for the purchase of livestock, executed in advance of slaughter, under which the base price is established by



Source: USDA-AMS.

Figure 6.4. Dressed basis domestic cattle slaughter percentage by transaction type. 2002 - 2021.

reference to publicly available prices. For example, forward contracts may be priced on quoted Chicago Mercantile Exchange prices or other comparable public prices.

- *Formula marketing arrangement* is the advance commitment of livestock for slaughter by any means other than a negotiated or negotiated grid purchase or a forward contract using a method for calculating price in which the price is determined at a future date.

At the center of the difference between negotiated and formula trades is the seller-buyer interaction to determine price and agree on delivery day. The types of formulas used are not publicly available for fed cattle, though there are calls for a contract library which will be discussed later in this chapter. Anecdotal evidence suggests that many formulas use some adjustment of the previous week's negotiated price for their region as the base price. Strictly from a reporting standpoint, there is not an obvious incentive to classify one transaction type over another. A volume requirement for negotiated trade would create such an incentive for a packer to report more negotiated transactions.

The introduction of an incentive or requirement to report more negotiated transactions would lead to changes in the number of cattle that fit the negotiated trade category. However, it is less clear that it would fundamentally change how those cattle exchange hands.

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If an incentive for more negotiated trade existed, formula traders would need to either formally negotiate more cattle or modify their formula trading practices to fit within the negotiated transaction definition. Due to the significant cost advantages of formula trades, there would be a cost incentive to increase reported negotiated transactions while retaining at least some of the benefits of formula trades, whenever feasible. The key question is, can slight modifications of current formula trading practices allow these trades to be reported as negotiated trades without having to incur the cost of negotiation?

This question is particularly relevant for well-established relationships between parties who use a formula. For example, if a long-standing formula agreement between a feedlot and a packer needs to be broken to meet negotiated requirements, could these two parties easily structure an ongoing negotiated trade arrangement? And could such an arrangement still avoid many of the costs associated with negotiation, especially the potential cost of a failed negotiation? And if such modifications to meet definitional requirements can be made, how much improvement to the price discovery process has actually occurred?

Generally speaking, if packers are forced to more often classify transactions as negotiated instead of formula, rational participants would be expected to seek legal ways to meet the negotiated definition while minimizing the cost of doing so. Further, the packers and feeders with the best relationships will be best positioned to minimize the cost of swapping from formula to negotiated transactions. Additionally, it is unclear if these converted negotiated transactions would add significantly to the price discovery process.

Generally speaking, if packers are forced to more often classify transactions as negotiated instead of formula, rational participants would be expected to seek legal ways to meet the negotiated definition while minimizing the cost of doing so.

Many other questions remain about how participants would respond to a new incentive or requirement over negotiated trades. How would market reporting shift in the presence of regulation on volume by transaction type? Can AMS reporters and the twice annual auditing process easily determine which category a transaction should be in? Can the transaction types be better defined? Also in question: which cattle that are currently on a formula are likely to be shifted to negotiated? Information does not exist on the structure of current formulas.

The Potential Role of a Contract Library

Another interesting aspect of the market transparency discussion involves details of non-negotiated trades. Non-negotiated trades include formula trades, forward contracts and packer owned cattle. While there have been legitimate reasons for movement away from negotiated trade and to alternative marketing agreements (AMAs), there are also significant concerns about the impact continued reductions in negotiated trades has on price discovery and the value of negotiated price information. Formula transactions now comprise the majority of fed cattle transactions and have become the source of much contention in the cattle sector.

Much of the contention comes from the fact that a limited amount of information is truly known about the nature of these formula pricing agreements and that they are likely to be less reflective of current market conditions than negotiated trades. For the most part, cattle producers are unaware of the basic price formulas, premium and discounts, and other elements of these transactions that are key in arriving at the formula price. As price discovery discussions have taken center-stage, and transparency has become more important, the development of a contract library for cattle has been included in recent proposed legislation. A contract library would provide increased transparency as it would create a catalog of the types of contracts offered by packers to producers of fed cattle. This section will focus on outlining what would likely be included in a cattle contract library, as well as the potential benefits and limitations, if one were to be developed.

Assuming that a contract library for cattle looked similar to what exists for swine ... it is hard to argue that there would not be some benefits to cattle producers from the development of such a library and their ability to access it.

The concept of a contract library is by no means new, as one was created for swine through the amended Packers and Stockyards Act. The existing Swine Contract Library (SCL) likely provides some perspective on what a beef cattle contract library might look like, and what information would be available, if one were created. Swine packers above a specific size are required to report written and verbal contracts to the USDA Grain Inspection, Packers, and Stockyards Administration (GIPSA). These provisions are then released by GIPSA through publicly available monthly Contract Summary Reports, although confidentiality is maintained. Producers do not know contract provisions being offered by individual firms, but they are able to see base price formulas, premiums and discounts, and other contract terms across a wide range of contracts (USDA-AMS, 2018).

Assuming that a contract library for cattle looked similar to what exists for swine, the library would provide a range of pricing agreements that are currently being used and would provide perspective on the variation in net price that is actually received from formula and contract transactions. It is hard to argue that there would not be some benefits to cattle producers from the development of such a library and their ability to access it.

First, a cattle contract library would provide perspective on the markets that existing formula trades are based upon. It is likely that many formula prices are based on the cash prices for a given regional market, CME futures market, or based on a measure within a nearby plant of the buyer. Following are three examples (A, B, and C) of contracts pulled from the SCL (Figures 6.5-6.7). Contract A represents one of the simplest contract arrangements reported in the SCL for the market formula category in the western cornbelt for sows (Figure 6.5). Note

All Reports Referenced
LM_HG231, 300-450 pound sow, Day of Delivery

Other Terms
Final Price = Market Price + Contract Premium
Premium/Discount Type: Contract Premium, $2.50

Source: Swine Contract Library.

Figure 6.5. Contract A: Determination of Base Price 401.

that Contract A specifies the market report upon which the price is based, LM_HG231, for 300 to 450 lb sows on the day of delivery. The price for this contract is simply this price, plus a $2.50 contract premium. A similar formula contract can easily be imagined for live cattle such that the price is established as a certain amount above the previous week's price.

Many existing swine contracts utilize a weighting of multiple prices to arrive at the contract price. For example, some base a percentage of the price on a specific hog market and a percentage of the price based on a pork carcass value with

All Reports Referenced
LM_HG203, Negotiated Base Weighted Average, Average - 3 days prior to delivery
LM_PK602, Pork Carcass Cutout, Average - 3 days prior to delivery

Other Terms
Final Price = 50% (Weighted Average + Contract Premium) + 50% (Cutout Percentage * Cutout Value) + Carcass Merit Adjustment.
Premium/Discount Type: Sort; See Schedule: 78
Premium/Discount Type: Carcass Merit; See Schedule: 18
Premium/Discount Type: Contract Premium, $1.00
Premium/Discount Type: Cutout Percentage 91%

Source: Swine Contract Library.

Figure 6.6. Contract B: Determination of Base Price 1504.

All Reports Referenced
LM_HG206, Weighted Average, Average - Previous Week

Other Terms
Floor Price: 0.28; Ceiling Price: 0.56
If Market Price (MP) > $50, then Base Price = MP - $0.50
Premium/Discount Type: Contract Premium, $7.25
Premium/Discount Type: Gender Mix, $6.25 > 60% barrows in load

Source: Swine Contract Library.

Figure 6.7. Contract C: Determination of Base Price 2911.

a specified cutout percentage. Contract B is an example of a contract that places 50% emphasis on two prices and includes a carcass merit adjustment (Figure 6.6). It is possible that similar arrangements exist in cattle markets. A better understanding of what markets are used as the base for price formulas, and how often those market references show up in contracts, would provide valuable information to market participants.

Second, producers would also benefit from seeing the premiums and discounts used when employing those key markets. Lots of questions have surfaced over the last couple years about how representative the shrinking negotiated volume is of most cattle transactions. Seeing the adjustments used with base prices would shed some light on these types of questions as can be seen with the $2.50 and $1.00 contract premiums shown in Contracts A and B, respectively. A large number of contracts in the SCL specify contract premiums and knowing the range of these premium levels could be useful as producers attempt to understand the value of the cattle they produce and negotiate with buyers.

Third, while base prices and premiums or discounts are likely to be the focus of most contract library discussions, there is additional value in other contract provisions that would be available. Beyond the variation in values that can potentially be learned from a contract library, seeing the individual elements within existing contracts would likely increase transparency about the various components being used. Pricing agreements can be complex and seeing all the elements of these contracts will provide more perspective on the nature of the agreements. Some of the reported swine contracts include price floors and ceilings, cost elements such as feed prices, transportation cost or delivery arrangements, etc. Contract C is a relatively simple contract based on a single market report from the previous week but adds the elements of both a price floor and ceiling in addition to a contract and gender percentage premium (Figure 6.7).

Having access to this information would increase their level of marketing knowledge and provide them with additional tools as they develop their own pricing agreements.

Another specific element that would likely be of considerable value to cattle producers would be the bonuses/premiums paid for certain programs such as naturally raised or produced without antibiotics. Some such references appear in the SCL and would presumably appear in a similar library for cattle. It is likely that a cattle contract library would reveal many contract elements that have not been considered by many producers. Having access to this information would increase their level of marketing knowledge and provide them with additional tools as they develop their own pricing agreements.

While there are likely benefits of having a cattle contract library, there are certainly limitations to what one can be expected to provide. A contract library is a database of existing contracts for the purchase of livestock. Contracts listed would not be identified as being offered by a particular entity. Additionally, it

would not provide perspective on the volume of cattle that are purchased under any individual contract. Just because a specific contract exists, does not mean that it is available to an individual producer. Some contracts may have been entered into under very different market conditions but remain in existence, or contracts may exist in the library but may be very rarely utilized.

Still, by knowing the potential provisions that exist across contracts, producers may be in a better position to evaluate offers, negotiate terms, and compare pricing opportunities. Access to this information could provide a deeper understanding of formula and contract values. For example, understanding how much variation exists across formula values may well be more important to an individual producer than the average formula price in the market. Seeing what additional contract provisions accompany the more attractive pricing arrangements may explain some of this variation.

The other interesting aspect of Swine Contract Library is the required reporting of contract purchases 6 and 12 months in the future, which is also referenced in recent proposed legislation with respect to the cattle industry. These data are made public by GIPSA on a monthly basis. While it does not include pricing information, it does provide an indication of contracted volume, which may shed some light on volume still needed for purchase. This has been another contentious issue in the beef sector and regular reporting of contracted volumes would increase market transparency.[2]

Like most things with respect to price discovery, a contract library is one piece of a very complex puzzle. A contract library has the potential to provide some valuable information about contracts currently in use by market participants and could likely do so in a way that does not violate confidentiality guidelines, though there would likely be instances that run into confidentiality restrictions. This is a level of transparency that does not currently exist in the cattle sector. However, one must also understand the limitations of a contract library. It is not going to show what individual entities are paying for cattle, how they are arriving at those values, or how many cattle are truly being sold using those contracts. Further, compliance and reporting will create additional costs for market participants, which has the potential to be passed back in the form of lower cattle values.

Summary and Conclusion

There are several points that should be emphasized with respect to market reporting and the importance of transparency in that process. The first point is simply how crucial market reporting is to the price discovery process and how important it is that this system remain in place. Reliable and transparent price reporting may not be a sufficient condition for desirable market qualities, but in most all cases, it is a necessary condition. Other chapters in this volume discuss that most of the present issues surrounding price discovery are not new and similar calls for action to improve price discovery have occurred with varying degrees of inten-

[2] As a reference, the most recent such report can be found at https://www.ams.usda.gov/sites/default/files/media/SCLMRSummary.pdf.

sity over the past 50 years (and even further back). It was producer and producer group concerns, in the name of improving price discovery, that led to producer support for the mandatory price reporting system that is in place today. It is easy to take the market reporting system for granted, but to do so is to risk losing a key element for efficient markets. Required LMR reauthorization keeps this issue on the forefront about every five years. LMR provides much of the data to allow for discussions about price discovery to occur.

Second, one must also understand what can realistically be expected from LMR. While a lot of the issues of concern today are not new, the current setting of increased concern of live cattle marketing issues is different from past decades because of the presence of LMR data. In particular, the LMR data on transaction type was not available under the voluntary framework prior to LMR. Many of the current proposals focus on these data and would rely on them for regulation. It is crucial to recognize that while these transaction types are informative, they were not designed to support a regulatory framework. LMR is a reporting tool and cannot be expected to deal with many of the issues that are often mentioned in pricing discussions such as market concentration, margins at different levels of the marketing chain, etc.

Third, opportunities likely do exist to improve the information made available through market reporting. One potential step toward increased transparency could be the development of a contract library for cattle, similar to the Swine Contract Library. These trades can take on many different forms and a catalog of these contracts would increase transparency in the industry. Informing the public about markets that formula prices are based upon, how formulas are calculated, premiums and discounts, and other contract provisions would provide a deeper understanding of formula trades than prices alone. Clearly the cost of developing the library should be weighed against the benefits of its existence, but benefits in the form of increased transparency would exist.

Fourth, confidentiality should be reviewed through the filter of the current market environment. Confidentiality requirements have been a concern for LMR since inception and these concerns will only increase as the cattle industry continues to evolve. It has been 20 years since guidelines were last revised and marketing conditions have drastically changed during that time. A basic question that could be asked is simply if all trades are worthy of being reported, even if the potential exists for those prices to be linked back to an individual entity? Clearly, confidentiality concerns are less of an issue in more competitive markets. Reporting more transactions could simply be considered a downside for buyers that are operating with fewer competitors.

Overall, the relaxation of confidentiality requirements, combined with a better understanding of contracts, has the potential to benefit price discovery. In a setting where all proposed prescriptions to improve price discovery likely exhibit increased costs and/or unintended consequences, relaxing confidentiality, and improving descriptions of formula/contract trades might lead to the largest net benefit as compared to other proposals. This is likely especially true for cattle producers who would benefit from better price discovery without absorbing the larger costs associated with other proposed prescriptions.

Finally, it is certain that technological advances will continue to impact all aspects of the cattle industry, including how cattle are marketed. Efforts exist to use online auctions for fed cattle which would allow buyers and sellers to observe the negotiation process and see posted prices. This may in fact illustrate the most important point of all. The cattle marketing system is continually evolving and LMR must find a way to evolve if it is going to continue to provide the reliable and transparent data that is necessary for efficient markets.

References

Anderson, J., Ward, C., Koontz, S., Peel, D., & Trapp, J. 1998. "Experimental Simulation of Public Information Impacts on Price Discovery and Marketing Efficiency in the Fed Cattle Market." *Journal of Agricultural and Resource Economics*, 23(1), 262-278.

Greene, J. 2019. "Livestock Mandatory Reporting Act: Overview for Reauthorization in the 116th Congress." Congressional Research Service Report R45777. Available online https://crsreports.congress.gov/product/pdf/R/R45777

Boyer, C.N. and B.W. Brorsen. 2013. "Changes in Beef Packers' Market Power After the Livestock Mandatory Price Reporting Act: An Agent-based Auction." *American Journal of Agricultural Economics* 95:859-876.

Committee on Agriculture. 1979. "Price Movements in Cattle and Meat Markets, July-August 1979." Hearing before the Subcommittee on Livestock and Grains of the Committee on Agriculture of the U.S. House of Representatives. 96th Congress, First Session. October 30. Serial No: 96-HH. Available at https://books.google.com/books?id=gp6vt_iX-6YsC&pg=PA69&lpg=PA69&dq=guide+for+packers+on+mandatory+price+reporting&source=bl&ots=yZMZJMDrTN&sig=ACfU3U1x-gnLu6WxBLKkfnSKKKfq_QrwLww&hl=en&sa=X&ved=2ahUKEwiO-05CIiqXwAhWPQc0KHWMmDkUQ6AEwCXoECAYQAw#v=onepage&q=guide%20for%20packers%20on%20mandatory%20price%20reporting&f=false

Koontz, S.R., and C.E. Ward. 2011. "Livestock Mandatory Price Reporting: A Literature Review and Synthesis of Related Market Information Research." *Journal of Agricultural & Food Industrial Organization*. Volume 9, Article 9.

Koop, B. 2016. "Livestock Mandatory Reporting Compliance Program." Presentation at the 2016-2017 LMR Stakeholder Meetings. Available online: https://www.ams.usda.gov/reports/compliance-review-process

Newbery, D.M and J.E. Stiglitz. 1981. *The Theory of Commodity Price Stabilization: A Study of the Economics of Risk*. Oxford, UK: Oxford University Press

Parcell, J., G.T. Tonsor, and T. Schroeder. 2016. "Livestock Mandatory Price Reporting: A Literature Review and Synthesis of Related Market Information Research." Research commissioned by USDA Agricultural Marketing Service.

Perry, J. J. MacDonald, K. Nelson, W. Hahn, C. Arnade, and G. Plato. 2005. "Did the Mandatory Requirement Aid the Market? Impact of the Livestock Mandatory Reporting Act." Electronic Outlook Report from the USDA Economic Research Service. LDP-M-135-01, September.

Pitcock, J. 2016. "Livestock Mandatory Reporting Cattle." Presentation at the 2016-2017 LMR Stakeholder Meetings. Available online: https://www.ams.usda.gov/reports/cattle-reporting

Purcell, W., S.R. Koontz, T. Schroeder, C.E. Ward, J. Mintert, D.S. Peel, and D. Kenyon. 1997. "Price Discovery in Concentrated Livestock Markets: Issues, Answers, Future Directions." Research Institute on Livestock Pricing, Department of Agricultural and Applied Economics, Virginia Tech, Blacksburg, VA.

Schroeder, T.C., L.L. Schulz, and G.T. Tonsor. 2019. "Feasibility Assessment of Reporting Negotiated Slaughter Cattle Purchases in Separate Delivery Window Categories." Research report prepared for USDA-AMS. Available at https://www.ams.usda.gov/sites/default/files/media/FinalReportNegotiated5AreaCattleStudy.pdf

The Council on Food, Agricultural & Resource Economics (C-FARE). (2013). *Value of USDA Data Products.* Washington, DC. Originally published in 2013. Updated July 2016.

United States Department of Agriculture, Agricultural Marketing Service (USDA, AMS). 2018. Swine Contract Library. https://www.ams.usda.gov/sites/default/files/media/SCLFactsheet.pdf

United States Department of Agriculture, Agricultural Marketing Service (USDA, AMS). 2021a. Livestock Mandatory Reporting (LMR) Excluded Transaction Summary. National Weekly Boxed Beef Cutout and Boxed Beef Cuts. Available online: https://www.ams.usda.gov/mnreports/lsmwaexxb459.pdf

United States Department of Agriculture, Agricultural Marketing Service (USDA, AMS). 2021b. Livestock Mandatory Reporting (LMR) Excluded Transaction Summary. National Weekly Direct Slaughter Cattle, Negotiated Purchases. Available online: https://www.ams.usda.gov/mnreports/lsmwaexct154.pdf.

Wachenheim, C.J. and E.A. DeVuyst. "Strategic Response to Mandatory Price Reporting Legislation in the U.S. Livestock and Meat Industries: Are Collusive Opportunities Enhanced?" *Agribusiness: An International Journal,* 17(2001):177-195.

Chapter 7

What Can the Cattle Industry Learn from Other Agricultural Markets That Have Limited Negotiated Trade?

Scott Brown

Introduction

Many agricultural product markets have experienced thin markets and questions have arisen about whether these markets have adequate cash trade for reliable price discovery. Although this has been a more recent issue for cattle markets, the chicken and dairy industries have faced the issue of thin markets for decades while the pork industry dealt with declining levels of cash trade in the 1990s.

The experiences of these other agricultural sectors can provide a useful point of reference for the cattle industry as it grapples with adequate price discovery in fed cattle markets and the reduction in negotiated trade. In some of these markets, there has been a high level of government support to help deal with pricing issues while in other markets there has been little government involvement.

Clearly, each of these agricultural markets are unique. As such, there is no single solution to the issue of declining cash trade and how it is handled in a particular agricultural market. However, studying how these other markets have addressed thin market issues can provide some context for cattle markets.

Thin markets have been defined as having a weak or no cash market and no related derivatives, little public market data, and little understanding by outsiders (Adjemian, 2016a). However, the definition of a thin market is often qualitative in nature (Anderson, 2007). The qualitative nature of the thin market definition makes it difficult to determine an exact threshold where a market becomes too thin. As discussed at length in Chapter 3, robust price discovery does not necessarily require a large number of cash transactions, though more trades reduce potential problems with price discovery.

Dairy Markets

The U.S. market for cheese has often been described as a thin market. For many years, the National Cheese Exchange (NCE) located in Green Bay, WI, served

as the primary cash market for cheese produced in the United States. The NCE was closed in 1997 amid expressed concerns of market manipulation and the spot cheese market was moved to the Chicago Mercantile Exchange (CME) where it remains in operation today. In response to the thinness of spot cheese markets, the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) began a voluntary survey of cheddar cheese prices in May 1997. In October 1998, NASS expanded the survey to include butter, nonfat dry milk, and dry whey.[1]

In late 2000, Public Law 106-532 was passed which created mandatory price reporting for dairy products. USDA's rulemaking process first concluded in June 2008 creating the Dairy Products Mandatory Reporting Program. By 2012, USDA's Agricultural Marketing Service (AMS) also had a mandatory sales reporting system for dairy products with the first report (National Dairy Products Sales Report) being released in March 2012.[2] Dairy product prices remain important for dairy producers because Federal Milk Marketing Orders (FMMOs) use these dairy product prices to determine minimum classified milk prices that processors must pay into the FMMO pools.

The Wisconsin Cheese Exchange was launched in 1918 to trade spot cheese (Hamm, 1995). It was officially renamed the National Cheese Exchange in 1974. The NCE was a weekly exchange that traded carloads of block and barrel cheeses each Friday. Although other exchanges existed to trade cheese, the NCE became the dominant exchange. Other spot prices did exist through the 1970s including the Wisconsin assembling points price which provided spot prices where the first handler could obtain alternative supplies (Lough, 1980). The NCE was described for decades as a thinly traded market. In the late 1970s, trades on the NCE represented less than one percent of all cheese produced (Mueller, 1996). Despite the small quantity of cheese traded on the NCE, the market price reported at the NCE was still the dominant base price used in contracts of all types of cheese.

As concerns about possible manipulation of the NCE grew, pressure for changes to the NCE intensified until it was ultimately closed. One issue raised was the behavior of NCE market participants. First, as reported by Mueller, the nine leading NCE traders accounted for 94 percent of all purchases and 94 percent of all sales over the 1988 to 1993 period (Mueller 1996). In addition, those dominant traders that benefited from lower prices sold 1,806 loads while those dominant traders that benefited from higher prices bought 1,947 loads. These results lead some to suggest these players were attempting to manipulate prices to their advantage. That is, selling loads could drive market prices lower and those participants that sold most of the loads would benefit from lower prices. The converse of those buying loads and benefiting from higher prices is also a possibility.

Beyond the issues of market thinness and market dominance, other issues have been raised surrounding the NCE. Price volatility and how representative the NCE was of overall cheese pricing have been highlighted (Hamm, 1995). Dairy markets had exhibited little price volatility through most of the 1980s as government support programs provided a strong price floor and little opportunity

[1] https://usda.library.cornell.edu/concern/publications/ bn9996777?locale=en#release-items

[2] https://usda.library.cornell.edu/ concern/publications/ zs25x847n?locale=en

for price volatility. As non-American cheeses grew in importance, it was questioned whether NCE trading of American cheese captured these new market developments. Amidst the growing concerns about the thinness of the NCE the spot cheese market moved to the CME in 1997 and the CME remains the spot cheese market today. Upon moving to the CME, the market began trading daily Monday through Friday.

Even with the changes that came with the move of the spot cheese market to the CME, market thinness has remained a concern of many market participants. According to GAO research, over the 1997 to 2006 period, the average number of daily transactions was 1.2 for cheese barrels and 2.5 for cheese blocks (GAO, 2007). The largest participants also represented a large percentage of trading. Over the 1999 to early 2007 period, the two largest buyers of block cheese represented 74 percent of trading and the four largest buyers of barrel cheese represented 56 percent of trading (GAO, 2007). The largest three sellers of block cheese represented 67 percent of block cheese trading and the top two sellers of barrel cheese represented 68 percent of trading (GAO, 2007). Trading on the CME remains small today. For the week ending May 21, 2021, each day saw 10 or fewer transactions in either block or barrel cheese markets.

Although the CME and the Commodity Futures Trading Commission (CFTC) provide oversight of all dairy product cash markets (cheese, butter, nonfat dry milk, and dry whey), there are still possible price manipulation issues that remain. A civil penalty was agreed to be paid by dairy participants for attempting to manipulate milk futures prices through CME cash cheese purchases in 2004 (Shields, 2009).

The NASS survey for dairy prices that gave way to the AMS mandatory dairy product prices has provided another check on cash markets. The use of mandatory AMS dairy product prices in the formulas that calculate minimum federal order class prices have relaxed at least some of the concerns of the thinness of the CME cash dairy product markets. A unique piece of the pricing puzzle for dairy producers is that FMMO minimum milk prices for the four classes of milk are determined by formulas that are driven in part by the mandatory dairy product prices reported by AMS. Built into the formulas are fixed production coefficients and make allowances that provide a fixed margin to a processor of milk products. This adds additional complication to the milk pricing process for dairy producers and can lead to further concerns about their milk checks.

Dairy producers continue to worry that the days of cooperatives taking all the milk they want to produce are coming to an end and the assembly cost of milk for cooperatives continues to offer scale economies for the larger producers they service. It's important to draw a few observations about dairy markets and how they relate to the cattle market:

1. If dairy product market participants feel that cash markets are being pushed or pulled to prices not in alignment with underlying supply and demand conditions, it is easier for dairy interests to take a market position on the opposite side. In the negotiated market for fed cattle it is not

as simple to move from a buyer to a seller except for the use of futures markets for live cattle.

2. Exceptionally thin markets for dairy products can operate successfully, especially when mandatory prices help to provide additional market information. However, adequate price discovery is often difficult to measure.
3. The prevalence of dairy cooperatives may be providing a way for dairy producers to better negotiate with upstream users of milk even though at times producers have expressed concerns about the function of dairy cooperatives.

Other Markets

Hog markets have experienced a substantial decline in negotiated trade over the past three decades. In 1994, 62 percent of the hogs were sold on the negotiated market and by 2000 that percentage had fallen to 26 percent (Grimes, 2003). Current negotiated trade stands at a little more than 1 percent according to AMS mandatory price reporting data. Swine or pork market formula and packer-owned hogs have been the two largest categories of monthly hog slaughter for the past several years. The combination of these two categories is responsible for roughly two-thirds of all hogs marketed. The small percentage of negotiated trade has been a concern in hog markets for several years. There have been more hog formulas based off of the wholesale pork cutout value recently, which has some advantages in terms of the base price being closer to the consumer so that demand signals reach producers more quickly and both producers and packers can more quickly respond to changing pork cutout values. Hog pricing became an issue in the 1990s as negotiated trade fell dramatically as processors and producers took advantage of economies of scale. Mandatory price reporting for hogs has helped many market participants, but adequate spot trade will continue to be an issue for the foreseeable future.

As the hog market has evolved, enough time has passed to make permanent structural changes in how hogs are produced and priced. Relatively little negotiated trade remains, and there are even fewer auctions where finished hogs are bought and sold. The passage of time has solidified a new market and has lessened the call for policy-mandated changes. The time element in market changes appears to have been given little attention in the literature.

Chicken markets have reached a point where it is difficult to even find a cash market for chickens. The chicken industry has experienced vertical integration as market participants all along the marketing channel focus on transmitting consumer wants to all market participants to maximize overall demand for chicken.

Market coordination and efficiency has moved the chicken industry to the point where individual complexes produce one type of bird for one type of outlet or even one customer. Recent completion of Costco's Lincoln Premium Poultry is a market innovation where Costco has built out the production capacity to supply chickens for their in-house rotisserie market. The birds are produced with

contracted growers, as in other companies, but Costco has expanded into agricultural production. Complaints remain about tournament system pricing and the lack of ability to switch to different integrators, creating the risk for even more market power. But, to date, little has been done to change this system.

A wide variety of vegetables and field crops, like malting barley, are examples of crops dominated by contracting. In many cases, the farmer grows the variety prescribed by the company and in the manner required. Often, there are few market prices reported or products traded. These are all considered to be thin markets, with the potential for problems associated with thinly traded markets. How might these other markets compare with fed cattle markets?

It's well known that agricultural markets are becoming more concentrated; there are fewer buyers and sellers. Cash markets have dwindled, having been replaced by contracts or vertically integrated firms owning much of the production. Yet, these arrangements can produce economically efficient outcomes. Three conditions have been postulated as necessary for buyers to get a stable supply of farm products: (1) source enough product to efficiently operate facilities, (2) produce in a least cost or profit maximizing method, and (3) procure products efficiently (Adjemian, 2016b)

For the market to work in the long run, buyers must pay a high enough price to keep farmers and ranchers producing. A market power argument that buyers force lower prices to producers means that, over time, resources in production will exit, resulting in buyers or processors losing their investment as well. Two conditions have been suggested that would allow competitive returns in agricultural production under alternative marketing arrangements: (1) the benefits of preserving resources in production agriculture are maintained and (2) buyers (processors) and sellers (farmers and ranchers) value the future enough (have a low enough discount rate to value the future). When these conditions are met, buyers and sellers can find grounds to create supplies to meet demands at a profitable price to the farmer.

The agricultural markets mentioned above continue to produce agricultural commodities entering the processing and distribution systems. But, the transactions are not made in negotiated cash markets. The evolution of these markets was not pain free, meaning that many producers and processors exited as the market consolidated and concentrated. The fed cattle market might be thought of as being in this process now. Many other markets are years ahead in this process, leading to alternative marketing arrangements being the norm.

Why might cattle be late to these changes that have occurred around much of agriculture? One reason is likely the nature, or structure, of production. Cattle and beef production begins extensively, out on ranges and pastures. All told, huge investments in land are necessary to consolidate production, and more profitable uses of capital are available. That dynamic makes cattle different from hogs or chickens. The fed cattle segment of the industry aggregates cattle into relatively small geographic areas, similar to other industries.

Consolidation and concentration in feeding is happening now, leading to policy concerns that have already happened in other agricultural markets. At the

same time, product differentiation into more varied market niches is happening. Beef is late to product differentiation as well. Niche markets such as grass-fed, organic, and other production system defined products are relatively new entrants. Branded beef products are even newer product niches compared to other agricultural products. Successful branded meat products have been slow to develop. Pork has long been branded in hams, sausage, and bacon by recipe differences. Fruit and vegetables are differentiated by variety. Milk and dairy products have long been successfully branded. Product differentiation and more niche markets lead to thinner markets and more alternative marketing arrangements.

Summary

Many agricultural markets have seen cash markets for their products dwindle or completely vanish over the past several decades. This has led to many questions about adequate price discovery in many of these agricultural markets. The discussion around price discovery has been complicated as the capture of economies of scale has made all market segments of many agricultural commodities become more concentrated. Economies of scale reduce the costs of delivering farm products to consumers but often cause the volume of trade that occurs in cash markets to dwindle. Coordination of market participants at each step of the marketing channel has helped maximize efficiencies at the expense of cash trade.

While many agricultural products moved in this direction long ago, the fed cattle market – and market participants – are now going through these growing pains. Yet, these markets mentioned above have found transaction mechanisms that ensure continued production and some kind of adequate market returns. Observing the changes that have occurred in other markets is helpful in thinking about alternative paths for the cattle market going forward.

References

Adjemian, M.K., B.W. Brorsen, W. Hahn, T.L. Saitone, and R.J. Sexton. March 2016a. *Thinning Markets in U.S. Agriculture, What Are the Implications for Producers and Processors*, EIBM 148, U.S. Department of Agriculture, Economic Research Service. https://www.ers.usda.gov/webdocs/publications/44034/ 56926_eib148.pdf?v=8084.2 (accessed April 2021).

Adjemian, M.K., T.L. Saitone, and R.J. Sexton. 2016b. "A Framework to Analyze the Performance of Thinly Traded Agricultural Commodity Markets." Amer. J. Agr. Econ. 98(2):581-596.

Anderson, J., D. Hudson, A. Harri, and S. Turner. 2007. "A New Taxonomy of Thin Markets." Selected paper presented at the SAEA Annual Meeting, Mobile, AL, February 4-7.

Grimes, G., R. Plain, and S. Meyer. 2003. U.S. Hog Marketing Contract Study, January 2003. National Pork Board.

Hamm, L.G. and R. March 1995. "The National Cheese Exchange: Impacts on Dairy Industry Pricing." *Dairy Markets and Policy – Issues and Options*, No. M-7. Program on Dairy Markets and Policy, Cornell University.

Lough, H.W. 1980. *Cheese Pricing*, AER462, U.S. Department of Agriculture, Economic Research Service.

Mueller, W.F., B.W. Marion, M.H. Sial, F.E. Geithman. 1996. "Cheese Pricing: A Study of the National Cheese Exchange." Food Systems Research Group Report. Department of Agricultural and Applied Economics, University of Wisconsin-Madison.

Shields, D.A. November 2009. "Dairy Pricing Issues." Congressional Research Service Report, R40903. Congressional Research Service.

U.S. Government Accountability Office, SPOT CHEESE MARKET—Market Oversight Has Increased, but Concerns Remain about Potential Manipulation, GAO-07-707, Washington, DC, June 2007, p. 8, https://www.gao.gov/assets/gao-07-707.pdf.

U.S. Commodity Futures Trading Commission. "Dairy Farmers of America (DFA) and Two Former Executives to Pay $12 Million Penalty to Settle CFTC Charges of Attempted Manipulation and Speculative Position Limit Violations." Press release, December 8, 2008, http://www.cftc.gov/newsroom/ enforcementpressreleases/2008/pr5584-08.html.

Chapter 8

Implications of Fed Cattle Pricing Changes on the Cow-Calf Sector

David P. Anderson, Charley C. Martinez, and Justin R. Benavidez

Introduction

Sometimes lost in the debate over negotiated sales versus alternative marketing arrangements (AMAs) is that, primarily, it is a fed cattle pricing issue. The debate taps into long held views, sometimes correct, about market structure, changing markets, and perceptions of buyer's market power. Some of these views have been shaped from a time when the cattle market was very different from today, and some are formed by recent events.

There is no doubt that fed cattle prices impact calf and feeder prices, wholesale prices, and retail prices throughout the supply chain. These price relationships are described in any basic price analysis class that one might (or might not) remember from college. Market signals are passed throughout the supply chain and reflect not only basic supply and demand, but incorporate information, quality, and production characteristics that are important at each production level. Market signals have changed dramatically over the last 40 years. Events such as the industry-led beef quality audit increased feeding, breed changes, and value-based marketing, and caused industry participants at all levels to work to improve production efficiencies and profits.

This chapter examines the potential impact of changes to fed cattle pricing alternatives on cattle and calf prices through the transmission of imposed costs. The second part of the chapter explores several hypotheses about market premiums and price signals that have emerged in a changing cattle market.

Impacts on the Cow-Calf Sector

This analysis begins with several premises: 1) the market has evolved over time to rely more on formula pricing, 2) moving to formula pricing has increased efficiency through the reduction of transaction costs in the industry, and 3) the reduction in transaction costs have affected farm, wholesale, and retail prices.

Given the assumptions, what would happen if the market reverted to more negotiated pricing? Moving away from reliance on formula pricing and back to greater reliance on negotiated pricing, then, results in an increase in transaction costs between feeders and packers. The cost increase can be expected to change live cattle prices, calf and feeder prices, and wholesale and retail beef prices. There is a long literature of research on these types of topics spanning technical change, transaction costs, changes in demand, and various other changes in the marketplace. The basic marketing margin description and graphical analysis can be found in most price analysis textbooks but is referred to in this chapter from Tomek and Robinson (1981). In this basic framework, an increase in transaction costs results in a decrease in the derived demand for fed cattle and a reduction in supplies of beef. This means that the cost increase is passed from where it occurs through the marketing channel, both backwards and forwards in the supply chain. The end result is lower farm level prices (fed cattle) and higher retail beef prices.

Koontz (2020) estimated that the value of formula pricing in efficiency, or reduced costs, was $25 per head.

The $25 per head cost increase applied to all cattle assumes that all fed cattle are traded in a negotiated cash format.

As expected, increasing transaction costs results in lower live animal prices and higher wholesale and retail beef prices.

If the live-to-cutout spread is a concern, the end result is a widening price spread.

This analysis uses an equilibrium displacement model (EDM) to quantify the effect of an increase in costs at the feeder-packer level on cattle and beef prices. This type of model has been widely used previously (Brester, Marsh, and Atwood, 2004; Gardner, 1975; Hanselka *et al*., 2005; Schroeder and Tonsor, 2011; Wohlegenant, 1989). EDMs utilize previously estimated supply and demand elasticities to evaluate the impact of exogenous shocks. In this case, the exogenous shock in question is the imposition of increased transaction costs from reduced transaction efficiency due to reduced AMA use. This work follows an EDM developed by Johnson (2016). Supply and demand elasticities are taken from the literature for each production level. These estimates are used to estimate price and quantity changes through the marketing chain given a change in costs, supplies, or demands. Table 8.1 contains the elasticity estimates in the cattle and beef portion of the model.

Koontz (2020) estimated that the value of formula pricing in efficiency, or reduced costs, was $25 per head. Several caveats are in order when using this estimate. As noted in Chapter 5, the first is that the estimate is 16 years old and would not reflect changes since that time. It is likely that the value of efficiency is much larger than that today. The $25 per head is applied across all fed cattle, not

Table 8.1. Supply and Demand Elasticities Used in Estimating Impact of Reducing AMA Use.

Name	Elasticity
Own-price Elasticity of Demand for Retail Beef	-0.841
Own-price Elasticity of Supply for Retail Beef	0.352
Own-price Elasticity of Demand for Wholesale Beef	-0.567
Own-price Elasticity of Supply for Wholesale Beef	0.274
Own-price Elasticity of Demand for Slaughter Cattle	-0.291
Own-price Elasticity of Supply for Slaughter Cattle	0.254
Own-price Elasticity of Demand for Feeder Cattle	-0.137
Own-price Elasticity of Supply for Feeder Cattle	0.215

Table 8.2. EDM Results of the Impact of a $25 per Head Cost of Returning to a Negotiated Cash Market.

	2019 Base Price	Change
Calf Price $/cwt	163.40	-$2.62
Feeder Price $/cwt	144.67	-$2.32
Fed Cattle Price $/cwt	116.78	-$1.75
Cutout Value $/cwt	219.51	1.55
Retail Beef Price $/lb.	6.04	0.03

just those traded by formula. The year 2019 is used as the base year for analysis in the model to avoid 2020 given disruptions due to the pandemic (Martinez *et al.*, 2020). The $25 per head cost increase applied to all cattle assumes that all fed cattle are traded in a negotiated cash format.

Table 8.2 contains the model estimates of the impact of a $25 per head increase in transaction costs. As expected, increasing transaction costs results in lower live animal prices and higher wholesale and retail beef prices. The impact on live prices ranges from -$1.75 per cwt for fed cattle to -$2.62 per cwt for calf prices. Beef prices at the wholesale (cutout) and retail levels increase. The impact on live prices are larger, in percentage terms, than meat prices. If the live-to-cutout spread is a concern, the end result is a widening price spread. Work by Brester, *et al.* (2009) provides a good analysis on why farm share of the retail dollar is not necessarily a good base for policy-making.

Cow-Calf Market Emerging Premiums

During uncertain times for beef demand in the 1980s, the industry began a series of studies including the National Consumer Retail Beef Study (Cross, 1986). Prior

to the National Consumer Retail Beef Study, Rhodes *et al.* (1978) summarized the state of producer alternatives in marketing cattle and beef and discussed the direction of value-based marketing, which is what the industry now knows as AMAs. While focused on retail demand, the National Consumer Retail Beef Study identified changes needed throughout the industry, from the cow-calf through feedlot sectors. Packer survey respondents indicated concerns about hide problems, injection site blemishes, implant related problems, and a lack of uniformity of cattle and carcasses as management problems. These were identified in phase III of the study as areas to improve cattle management (Savell, 1993).

Two consensus points from the National Consumer Retail Beef Study were of particular interest to the live cattle side of the industry. The first was that fed cattle should be valued on an individual basis rather than an average live price. At that time, most cattle were sold on the average, meaning that an average price was negotiated and applied to all cattle in a pen regardless of each animal's quality. This means that the risk was left in the hands of the buyer (Ward *et al.*). Second, the study results revealed a need to identify genetics of carcass merit, to make changes to the cowherd, and to select breeding stock for improved carcass merit. Since the late 1980s, it is hard to argue that the cow herd has not changed dramatically with more focus on carcass quality.

A large body of research has been done on identifying the value contributions of various cattle characteristics. It has often been the case that price signals can be muted and different segments of the cattle industry value different traits (Outlaw, *et al*, 1997; Feuz, 1999). The growth of value-based marketing and AMAs, as that value mechanism, has created a series of premiums and discounts reflecting quality. In the era of only negotiated prices, these premiums and discounts are likely to exist in limited forms due to on-average pricing.

If formula pricing in fed cattle is a way to increase profits by reducing transaction costs, some studies indicate strategies to reduce transaction costs are at work in the cow-calf, stocker, and backgrounder segments, as well. The implication is that market signals to reduce costs, or increase profits, are at work in all segments of the industry and the result is an evolving market.

A host of studies have examined factors affecting calf prices (Faminow and Gum, 1986; Marsh, 1985; Zapata, *et al.*, 2020, Martinez, 2020). The usual factors include weight, sex, breed type, color, castration, and horns. Looking at studies over time indicates that premiums between breeds have shifted. Early on, Angus (or black) calves sold at a discount to Herefords. That has changed over time to breeds selling at a discount to Angus (or black) calves. Past studies have shown higher prices accruing in video auctions compared to traditional auction markets. The increased prices were attributed to reducing transactions. Other studies have examined value added programs like VAC45, special sales of pre-conditioned calves, and marketing of commingled sales to capture volume premiums (Mathews, *et al.* 2007; Schulte, 2001; Lawrence and Yeboah, 2002; Ward, Ratcliff, and Lalman; King and Seeger, 2005; Vaaler, Schroeder, and Boland, 2005).

The Beef Quality Assurance (BQA) certification program is a byproduct of the beef quality audits. The program targets a set of management practices to in-

crease quality. A survey of BQA certified cattle in Montana indicated that BQA members received $1.56 per cwt premium for steers and $1.09 per cwt premium for heifers (Brester, 2009). These premiums were realized after accounting for normal trait differences like weight and sex.

Mooney *et al.* (2019) examined the effect of BQA certification on video prices in the Western United States. This work indicated a premium of $2.69 per cwt due to BQA certification. Interestingly, the analysis indicated that the premium had grown from $1.14 per cwt earlier in the study period. Participation in more value-added programs yielded even higher premiums.

The work on valuing characteristics can be summarized into three areas: cattle characteristics, management activities, and premium certifications. Cattle characteristics in the form of breed choice can be shown to have changed over time to more highly-valued Angus (or black calves). Management activities can be thought of as including selling in larger lots, pre-conditioning calves, selling by video auction vs. traditional auction, or other preparation activities prior to sale. Larger lots and different selling venues are examples of ranchers selling calves in a way that reduces transaction costs, much like AMAs reduce transaction costs. Premium certifications, like BQA, are another method of adding value through information.

Many of these value-adding traits are the direct result of producers looking to increase profit through the application of value-based marketing from fed cattle to calves and feeders. The beef quality audits indicated a set of desirable producer management changes to boost beef quality. Many of these practices that deliver premiums can be traced directly to the beef quality audit and its influence in moving the industry to value-based marketing.

It might be hard to conceive of market-based premiums and discounts going away if changes were made to AMAs. However, it is worth considering the impact of value-based marketing premiums and discounts that have occurred over the last few decades to avoid unintended consequences of potential legislative changes.

Conclusion

The beef industry's move to AMAs represents part of the progression to value-based marketing and economic pressures to reduce transaction costs. Legislation or efforts to increase negotiated trade will increase industry costs. Those increased costs are estimated to result in lower calf prices and higher beef prices.

Cattle pricing and market signals have evolved over the last 40 years. Premiums that were not present prior to AMAs are now common. One of the challenges is maintaining the reward for quality if the method of pricing changes. Thinking through the effect of the pricing mechanism on market signals is an important consideration to prevent even more negative impacts of potential changes.

References

Bailey, D., M.C. Peterson, and B.W. Brorsen. 1991. "A Comparison of Video Cattle Auction and Regional Market Prices." *American Journal of Agricultural Economics* 73:465-475.

Buccola, S.T. 1980. "An Approach to the Analysis of Feeder Cattle Price Differentials." *American Journal of Agricultural Economics* 62:574-580.

Brester, G. 2002. "Beef Quality Assurance Program Participation Pays Off." Montana Beef Network.

Brester, G. W., J. M. Marsh, and J. A. Atwood. 2004. Distributional impacts of country-of-origin labeling in the U.S. meat industry" *Journal of Agricultural* and Resource Economics 29:206-227.

Brester, G. W., J. M. Marsh, and J. A. Atwood. 2009. "Evaluating the Farmer's Share of the Retail Dollar Statistic." *Journal of Agricultural* and Resource Economics 34(2):213-236.

Cross, H.R., J.W. Savell, R.E. Branson, D.S. Hale, J.J. Wise, and D.L. Wilkes. 1986. "National Consumer Retail Beef Study." Final Report to the Agricultural Marketing Service, USDA, Washington, DC.

Faminow, M.D., and R.L. Gum. 1986. "Feeder Cattle Price Differentials in Arizona Auction Markets." *Western Journal of Agricultural Economics* 11(2):156-163.

Feuz, D. 1999. "Market Signals in Value-Based Pricing Premiums and Discounts." *Journal of Agricultural and Resource Economics* 24(2):327-341.

Gardner, B.L. 1975. "The farm-retail price spread in a competitive food industry." *American Journal of* Agricultural Economics 57:399-309.

Hanselka, D.D., D.P. Anderson, O.Capps, Jr., and E.E. Davis. 2005. "Demand Shifts in Beef Associated with Country-of-Origin Labeling to Minimize Losses in Social Welfare." *Choices.*

Johnson, J.L. 1992. "Explaining Price Differentials at a Southeast Texas Feeder Cattle Auction Market." MS Thesis, Texas A&M University.

Johnson, M.D. 2016. "Beef Cattle Production Practices: What Are They Worth?" Unpublished Dissertation. Texas A&M University

King, M.E., and J.T. Seeger. 2005. "Ten-year Trends at Superior Livestock Auction: Calves in Value-Added Health Programs Consistently Receive Higher Prices." Pfizer Animal Health Technical Bull. No. SVCO5002, July.

Koontz, S.R., 2020. "A Synthesis of the Costs and Benefits of AMAs to the Cattle and Beef Industry – White Paper." Unpublished, Colorado State University. Available from the author.

Lawrence J.D., and G. Yeboah. 2002. "Estimating the Value of Source Verification of Feeder Cattle." *Journal of Agribusiness* 20(2):117-129.

Marsh, J.M. 1985. "Monthly Price Premiums and Discounts Between Steer Calves and Yearlings." *American Journal of Agricultural Economics* 67:307-314.

Martinez, C.C., J.G Maples, J.R. Benavidez. 2020. "Beef Cattle Markets and COVID-19." *Applied Economic Perspectives and Policy*. 43(1):304-314.

Martinez, C. 2020. "To Cut or Not to Cut? Price Comparisons of Bulls and Steers in Tennessee." University of Tennessee Extension Publication W 901.

Mathews, C.D., D.P. Anderson, O. Capps, and J. Sawyer. 2007."Valuing Animal Information and Other Information in Feeder Cattle." Presented Poster. American Agricultural Economics Association.

Mooney, D.F., M. Rollison, and J.K. Ahola. 2019."Estimating the Effect of Beef Quality Assurance on Video Cattle Prices in the U.S. West." Selected Paper. Agricultural and Applied Economics Association Annual Meeting.

Outlaw, J.L., D.P. Anderson, and D.I. Padberg. 1997. "Relationships Between Market Price Signals and Production Management: The Case of Fed Beef." *Journal of Agricultural and Applied Economics* 29,1:37-44.

Pate F.M., and J.R. Crockett. 1978. "Value of Preconditioning Beef Calves." University of Florida Institute of Food and Agricultural Sciences. Bull. No. 799.

Rhodes, J.V., D. Henderson, R. Hepp, and J. Early. 1978."Who Will Market Your Beef. Producer Alternatives." Texas Agricultural Extension Service, Texas A&M University System. D-1056.

Savell, J.W. 1993. "Value Based Marketing of Beef." Paper Presented at the Farmland Industries, Inc. University Advisory Board Meeting, Plaza Embassy Suites, Kansas City, MO,.

Schroeder, T., J. Mintert, F. Brazle, and O. Grunewald. 1988. "Factors Affecting Feeder Cattle Price Differentials." *Western Journal of Agricultural Economics* 13(1):71-81.

"Price Differentials in Kansas Feeder Cattle Auction Markets." Dept. of Agr Econ. Bull. No. 88-8, Kansas State University, January.

Schroeder, T.C. and G.T. Tonsor. 2011. "Economic impacts of Zilmax adoption in cattle feeding."*Journal of Agricultural and Resource Economics* 36:521-535.

Schulte, J.R. 2001. "Economic Viability of a Commingled/Backgrounded Cattle Sale." MS Thesis, Texas A&M University.

Tomek, W.G. and K.L. Robinson. 1981. "Agricultural Product Prices." Cornell University Press. Second edition..

Vaaler, B., T. Schroeder, and M. Boland. 2005. "Costs and Benefits of Marketing Differentiated Beef through Process Verification Systems." Agricultural Issues Center, University of California, February.

Ward, C.E, C.D. Ratcliff, and D.L. Lalman. 2004. "Price Premiums from the Oklahoma Quality Beef Network." Oklahoma Cooperative Ext. Fact Sheet F-599.

Ward, C., T. Schroeder, and D.M. Feuz. "Grid Pricing of Fed Cattle: Risk and Information." Oklahoma Cooperative Extension Service. F-561.

Wohlgenant, M. K. 1989. "Demand for farm output in a complete system of demand functions." *American Journal of* Agricultural Economics 71:241-252.

Chapter 9

Examining Negotiated Cash Trade Targets

Justin R. Benavidez and David P. Anderson

Introduction

On the evening of August 9, 2019, a fire caused severe damage to Tyson's beef processing plant in Holcomb, KS. The damage from the fire kept the plant and its base capacity of 6,000 head per day offline for the remainder of 2019. The decreased supply of beef to the open market led to a temporary spike in the price of boxed beef. At the same time, the decreased demand for fed (fattened, live) cattle resulted in a temporary decline in the price of fed cattle and feeder cattle.

Similar dynamics overtook the cattle market eight months later with the onset of COVID-19. As the pandemic took hold in packing plants, federally inspected weekly cattle slaughter fell from 684,000 head to 438,000 head in just five weeks, a 36% decrease (Martinez *et al.*, 2020). Federally inspected weekly cattle slaughter was 180,000 head below the five-year average. Two weeks later, the boxed beef negotiated cutout value reached $459.04/cwt, while fed steers and feeder steers fell to some of the lowest levels in recent years. Three weeks before negotiated boxed beef prices peaked, the price of fed steers on the southern plains dipped to $99/cwt.

Fundamentally, the recent market disruptions were the result of low demand for live cattle, some high demand for beef products, and tight supplies of beef, all resulting from limited live cattle processing capacity (Martinez *et al.*, 2020). These two events exacerbated concerns in the industry about price discovery, lower prices, market manipulation, capacity and utilization, and how fed cattle are bought and sold. The growth of alternative marketing arrangements (AMAs) have fueled concern about the lack of price discovery and their effect on prices. Some industry participants consider the divergent prices to be signs of, at minimum, a broken market. The United States Department of Agriculture (USDA) conducted investigations into beef and cattle price spreads. Others called for more packing capacity. At the same time, vocal groups within the largest cattle and beef trade organization in the United States began calling for changes to market structures as a solution.

The National Cattlemen's Beef Association (NCBA) set about seeking solutions for the cattle and beef industry and in July 2020 announced support for a

voluntary framework to "increase frequent and transparent negotiated trade to regionally sufficient level" to achieve robust price discovery (Bohn *et al.*, 2020). The idea is that increased negotiated trade volumes improve price discovery for fed cattle. Increased negotiated trade will result in a decrease in alternative marketing arrangements (AMAs) that, some argue, prevent adequate price discovery through creating markets that are too "thin." Others suggest that increased negotiated volumes will prevent price divergence like those resulting from the Tyson fire or the onset of COVID-19.

NCBA's "75% Plan" is a voluntary framework that establishes 'triggers' for each of the major cattle feeding regions (Bohn *et al.*, 2020). The objective of this study is to evaluate the probability of tripping established triggers in different regions over time and, as a result, the probability of NCBA supporting legislative changes to cattle trading methods. The remainder of this chapter includes a brief review of cattle trading methods, a review of the data utilized for the 75% Plan, an overview of the methods used and the simulation itself, and a discussion of results and conclusions.

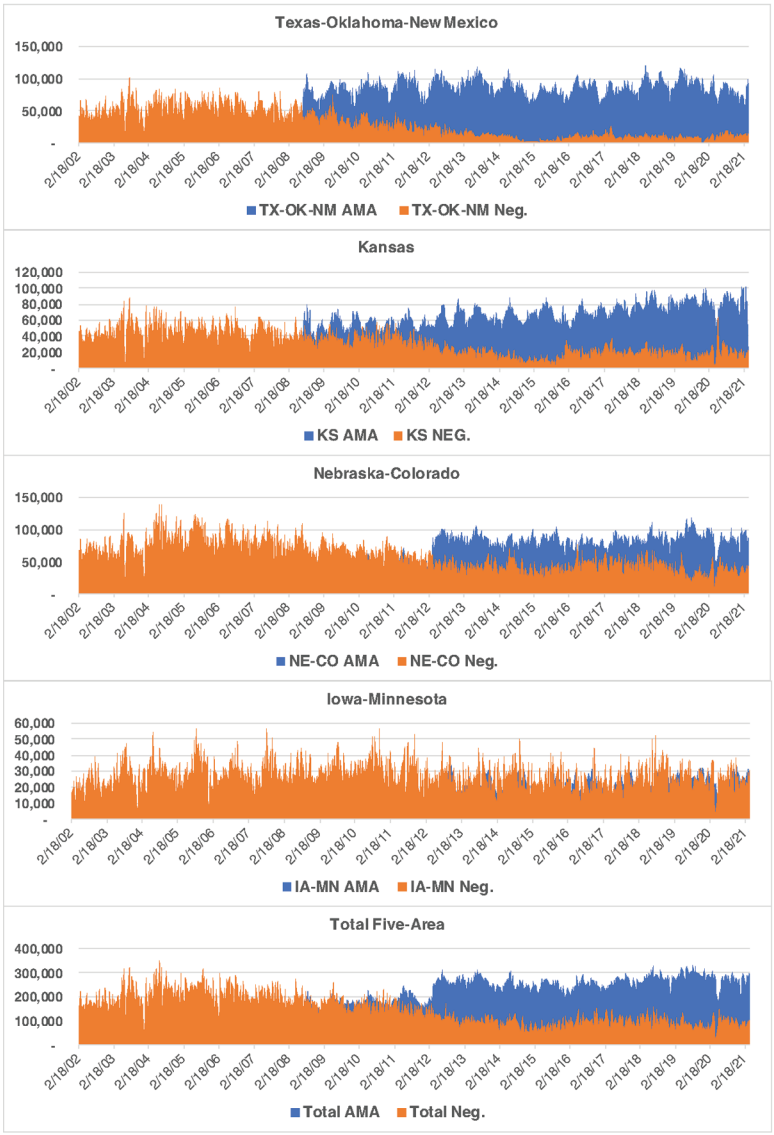
Negotiated Trade

As noted throughout this book, USDA recognizes and records several types of fed cattle sales methods. These sales methods are grouped into two types of fed cattle trade, negotiated and non-negotiated. Negotiated fed cattle sales categories include negotiated cash and negotiated grid. Negotiated trade is, "[a] price ... determined through buyer and seller interaction [where] the cattle are scheduled to be delivered to the plant within 30 days of the agreement" (Agricultural Marketing Service, 2020). Non-negotiated fed cattle sales categories include formula sales, non-negotiated grid sales, and contract sales. There are pros and cons to each type of sale, and they vary depending on the party (buyer or seller). Some methods decrease transaction costs, others change the risk borne by each party, and still others provide quality incentives.

Negotiated trade is valuable in that the spot market contributes to price discovery. Price discovery is the means through which an asset's price is set by matching buyers and sellers according to a price (Tomek and Kaiser, 2014). There is a bid and ask which leads to price *discovery*. Prices are set in other ways in non-negotiated trades. It might be plant average price, a USDA-AMS regional price, a futures price, or some other price (Agricultural Marketing Service, 2020). There is not a bid and ask to negotiate the price, and sellers do not know the price before the cattle are delivered. Research identified a clear and significant relationship between historical cash market volumes and the strength of price discovery in each USDA-AMS regional market.

The share of cattle sold via AMAs rose quickly from the late 2000s to the present (Figure 9.1). Much of the growth of cattle sold via AMAs was at the expense of cattle sold via negotiated methods.

The growth in AMAs was not equal across regions. Figure 9.1 contains USDA reported AMA sales which appeared earliest in Texas-Oklahoma-New



Source: USDA/AMS.

Figure 9.1. USDA Weekly Reported Trade 2002-2021, by Region and Total Cattle Sold via Alternative Marketing Arrangements and Cattle Sold via Negotiated Sales.

Mexico. When USDA began reporting non-negotiated sales separately in 2008, sales of fed cattle via negotiated trade averaged 44,509 head per week in Texas-Oklahoma-New Mexico. From 2015 to 2019 (the last full five years before the 75% Plan), sales of fed cattle via negotiated trade averaged 7,666 head per week in the same region, or 17% of 2008 weekly average negotiated volumes. Similar trends took hold shortly after in Kansas. In 2008, sales of fed cattle via negotiated trade averaged 38,323 head per week in Kansas. From 2015 to 2019, sales of fed cattle via negotiated trade averaged 17,274 head per week in the same region, or 45% of 2008 weekly average negotiated volumes.

Though AMAs are used in Nebraska-Colorado and Iowa-Minnesota, their share of total head sold is significantly smaller and did not begin until much later in the 2010s. In 2008, sales of fed cattle via negotiated trade averaged 70,653 head per week in Nebraska-Colorado and 28,404 in Iowa-Minnesota. From 2015 to 2019, sales of fed cattle via negotiated trade in Nebraska-Colorado averaged 41,113 head per week, 58% of 2008 weekly average negotiated volumes. From 2015 to 2019, sales of fed cattle via negotiated trade in Iowa-Minnesota averaged 24,115 head per week, 85% of 2008 weekly average negotiated volumes. Some of the changes in negotiated volume are due to fluctuations in the size of the cattle market over time. However, in Texas-Oklahoma-New Mexico and Kansas, most of the decline in negotiated fed cattle sales is directly inverse to the rise of AMAs.

The 75% Plan

The 75% Plan was developed and approved by NCBA's Live Cattle Marketing Working Group in 2020. The 75% Plan is a voluntary approach designed to, "increase frequent and transparent negotiated trade to regionally sufficient levels, to achieve robust price discovery determined by NCBA funded and directed research in all major cattle feeding regions" (Bohn *et al.*, 2020). The plan is split into two silos: a packer silo and a feeder silo. At present, the rules of the packer silo are incomplete and therefore we will focus our attention primarily on the feeder silo.

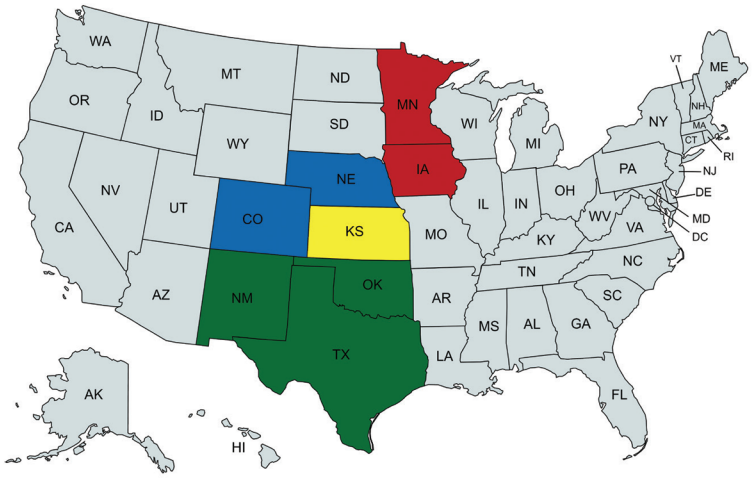
The plan utilizes a set of triggers specific to each AMS reporting region. These regions are Texas-Oklahoma-New Mexico, Kansas, Nebraska-Colorado, and Iowa-Minnesota (Figure 9.2). Nebraska and Colorado are reported separately by AMS but the 75% Plan combines them to account for nonreporting occurrences in Colorado.

Under the voluntary 75% Plan, each region is expected to trade 75% of the negotiated volume, as defined by measurements developed by Koontz (2017), needed to meet robust price discovery in a given week. Each region must achieve these volumes 75% of the weeks in a quarter, i.e., 10 weeks or more. Koontz's work established an estimated volume of cattle needed to be sold on a negotiated basis in each region to achieve minimum and robust price discovery (although, as noted in Chapter 10, Koontz has called into question the way in which his results were being used to justify changes to current practices). Table 9.1 lays out the volume of negotiated trade needed each week in each region to achieve robust price discovery. Table 9.1 also provides the NCBA's 75% of robust trade threshold.

Table 9.1. Negotiated Volume to Achieve Robust Price Discovery and the Minimum Negotiated Volume Required by the 75% Plan (Koontz, 2017; Bohn *et al.*, 2020).

Region	Negotiated Volume Needed to Achieve Robust Price Discovery (Head/Week)	75% of Negotiated Volume Needed to Achieve Robust Price Discovery (Head/Week)
TX-OK-NM	13,000	9,750
KS	21,000	15,750
NE-CO	36,000	27,000
IA-MN	16,000	12,000

These four weekly regional trade obligations are independent of one another. Increased negotiated volume in Texas-Oklahoma-New Mexico does not contribute to the obligations of Kansas regional trade. The failure of a given region to meet its obligations in a quarter constitutes a minor trigger. Note that there will eventually be eight potential triggers: four potential feeder triggers and four potential packer triggers. Three or more minor triggers (out of the eight) in the same quarter constitute a major trigger. Two major triggers in rolling set of four quarters will result in the NCBA Live Cattle Marketing Working Group recommending that, "…NCBA pursue legislative or regulatory measures to compel adequate negotiated trade for robust price discovery" (Bohn *et al.*, 2020).



Source: National Cattlemen's Beef Association.

Figure 9.2. National Cattlemen's Beef Association's 75% Plan Regions.

Table 9.2. Sum of Weekly Fed Cattle Sold via Negotiated Methods by NCBA 75% Plan Region, First Quarter 2021.

	Negotiated Trade Head/Week			
	TX-OK-NM	**KS**	**NE-CO**	**IA-MN**
75% Robust Threshold	9,750	15,750	27,000	12,000
1/4/2021	13,621	13,360	31,637	21,314
1/11/2021	9,285	17,184	27,763	19,414
1/18/2021	12,224	14,824	36,234	27,355
1/25/2021	8,344	24,001	35,109	18,887
2/1/2021	9,627	12,703	38,561	24,220
2/8/2021	12,088	21,589	36,383	26,081
2/15/2021	10,131	14,729	34,120	21,443
2/22/2021	10,393	9,692	30,191	20,342
3/1/2021	13,480	14,916	34,238	23,336
3/8/2021	15,041	19,242	24,210	22,939
3/15/2021	12,729	20,855	37,309	21,816
3/22/2021	6,327	17,237	26,066	29,424
3/29/2021	13,306	22,535	35,299	24,965

*Red values indicates a week in which total head sold by negotiated methods fell below the threshold established by NCBA's 75% Plan.

For an example of minor triggers, consider the first quarter of 2021 in Table 9.2, which lists weekly combined sales of negotiated cash and negotiated grid sales of fed cattle by region. From January through March, Texas-Oklahoma-New Mexico failed to meet the 75% of robust threshold four of 13 weeks. During the same period, Kansas failed to meet the 75% of robust threshold six of 13 weeks. Allowances were made for force majeure for two weeks in Kansas. With that adjustment, Kansas failed to meet the 75% of robust threshold four of 13 weeks. Nebraska-Colorado met the 75% of robust threshold all but two of the 13 weeks. Iowa-Minnesota did not fail to meet the 75% of robust threshold at any time during the first quarter of 2021. Therefore, two minor triggers were tripped in the first quarter of 2021 (in TX-OK-NM and Kansas). A major trigger was not tripped because only two minor triggers were tripped in the quarter (recall that our stylized example does not include the packer silo).

Simulation of Minor and Major Triggers

The remainder of the study is dedicated to evaluating the likelihood of possible outcomes under NCBA's 75% Plan. Using the Microsoft Excel plugin SIMETAR, a simulation model was developed to analyze the 75% plan using historic weekly USDA-AMS data to examine the probability of tripping minor and major

triggers in the feeding silo and reveal the quarters and regions within a given year most at risk for tripping triggers. The data informing the simulation is weekly data collected and reported by USDA-AMS (Agricultural Marketing Service, 2021). Data includes formula, grid, and contract purchases as well as negotiated purchases for each of the four regions defined by NCBA's 75% Plan (Bohn *et al.*, 2020).

Anecdotal discussions with industry stakeholders indicated that the announcement of the 75% Plan may have induced changes in negotiated trade volumes in some regions as early as July 2020. Statistical testing confirmed that hypothesis, meaning that to accurately forecast future trade volumes the model must be adjusted for the change in behavior.[1]

If behavior has changed since (possibly as a result of) the announcement of the 75% Plan, then forecasting with historic negotiated volumes will underrepresent the potential negotiated sales. To base the forecasted negotiated volumes on data since then, while accounting for the low number of observations since July 2020 we developed an empirically distributed stochastic negotiated sales inflation factor (NSIF). The NSIF for each region is the difference between weekly negotiated sales since July 2020 and average weekly sales in the same week from 2015 to 2019.

$$NSIF_{i,x} = \frac{Negotiated\ Head\ Sold\ Since\ July\ 2020_x}{Negotiated\ Head\ Sold\ 2015-2019_x}$$

where i is one of the four NCBA 75% Plan fed cattle regions and x is a vector of weeks, $x \in \{1,2,\ldots,52\}$ representing individual weeks in a calendar year. The average NSIF for Texas-Oklahoma-New Mexico is 1.7, Kansas is 1.24, Nebras-

[1] A two-sample t-test of negotiated sales volumes from July 2020 through March 2021 when compared to the same period a year prior, a previous five-year average of the same period, and the previous five years in general rejected the hypothesis that the mean weekly negotiated trade of the compared periods were equal in Texas-Oklahoma-New Mexico and Kansas. An F-test of the same periods rejected the hypothesis that the variances are equal for the same two regions. Stepwise regressions revealed that, before the announcement of the 75% Plan, a time trend and total fed cattle sales in a given week in Texas-Oklahoma-New Mexico explained 72.5% of the variation in negotiated sales in Texas-Oklahoma-New Mexico from 2010 to 2019. A time trend and total fed cattle sales in a given week in Kansas explained 67.8% of the variation in negotiated sales in Kansas from 2010 to 2019. The same measures in Nebraska-Colorado and Iowa-Minnesota explained only 39.1% and 31.0% of the variation in negotiated sales in those regions, respectively. As previously discussed, Texas-Oklahoma-New Mexico and Kansas are the two regions with the lowest negotiated trade and therefore pose the highest risk of tripping a minor trigger. Therefore, the duration of the study utilizes methods best-tailored to predicting changes in Texas-Oklahoma-New Mexico and Kansas. Upon including data from July 2020 to March 2021, post 75% Plan announcement, the explanatory value of the previously discussed regression models are reduced. The coefficient of time trend becomes insignificant; however, the total fed cattle sales in Texas-Oklahoma-New Mexico and Kansas remains significantly predictive of negotiated fed cattle sales, though with lower R-squared values.

ka-Colorado is 0.83, and Iowa-Minnesota is 0.99. Simply put, negotiated trade in a given week in Texas-Oklahoma-New Mexico was 1.7 times greater on average from July 2020 to March 2021 than it was from 2015 to 2019. Tests of the values of the NSIF adjusted values and actual values in the testing period fail to reject the validity of the NSIF as an accurate adjustment value.[2]

The NSIF yields several advantages. First, it accounts for the effort of different regions to adapt to the announcement of the 75% Plan. Second, it incorporates the seasonality of fed cattle sales by inflating or deflating values in accordance with historic average volumes in a given week. Accounting for seasonality provides more clarity in determining at-risk quarters. Finally, the NSIF can be varied artificially to easily test the system. For example, what would a 65% Plan or 85% Plan look like given the current NSIF? If a 65% or 85% Plan were enacted, how much would negotiated trade need to change to avoid tripping newly inflated or deflated triggers? One disadvantage is the assumption that negotiated trade continues to trade at increased levels one, two, and even five years out. However, with regular updates, a decreasing NSIF will reveal industry changes quickly.

To forecast weekly negotiated sales for 2021, we multiply stochastic draws of NSIF by the five-year average of negotiated sales in the corresponding week, $x \in \{1,2,\ldots,52\}$. To forecast weekly negotiated sales for 2022 to 2025 we multiply stochastic draws of NSIF by the previous year's negotiated sales in the corresponding week, $x \in \{1,2,\ldots,52\}$. Due to the previously discussed relationship between total fed cattle sales in a region and negotiated fed cattle sales in a region, we also accounted for the declining size of the U.S. cattle herd. The 2021 Cattle report described a decline in all cattle and calves from 93.8 million head on January 1, 2020 to 93.6 million head on January 1, 2021, a 0.2% decrease (Cowen, 2021). A review of cattle and calf inventory from 2000 to 2020 reveals that when the cattle herd is declining in size it declines 0.5% to 2.0% annually. To account for cattle herd declines, we draw stochastic, normally distributed values of herd decline from 0.5% to 1.0% and apply those values independently to each week from 2021 to 2024. In 2025 we apply a 0.5% to 1.0% stochastic, normally distributed value of herd increase independently to each week to account for a potential change in the direction of the cattle cycle at that time. Accounting for the NSIF adjustments to negotiated trade, we forecast values of negotiated trade from 2021 to 2025. The model then records weeks in which negotiated volumes in a region did not meet the 75% Plan threshold for that region. The model then counts the number of weeks in a quarter for which volumes did not meet the 75% Plan threshold. Finally, the model reports the number of quarters in which a minor

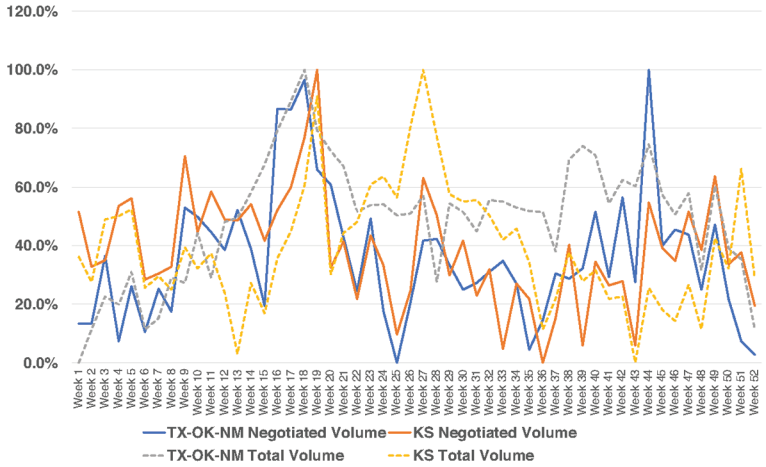
[2] A two-sample t-test failed to reject the hypothesis that the actual means of January 2021 to March 2021 values and NSIF adjusted predicted means for the same period were equal for all regions (P-Value = 0.638 for Texas-Oklahoma-New Mexico; P-Value = 0.597 for Kansas; and P-Value = 0.237 for Nebraska-Colorado; P-Value = 0.967 for Iowa-Minnesota). An F-test revealed the same outcome for variances between the two samples in Texas-Oklahoma-New Mexico (P-Value = 0.064) and Kansas (P-Value = 0.532). The same test rejected the hypothesis of equal variance in Nebraska-Colorado (P-Value = 0.000) and Iowa-Minnesota (P-Value = 0.008). Again, we chose to tailor our methods on forecasting outcomes for the at-risk regions and applied those methods equally to the regions with very low chances of tripping minor triggers.

trigger is tripped, the number of quarters in which a major trigger is tripped, and whether two major triggers were tripped in a rolling set of four quarters leading to NCBA support of legislative action. We then simulate 500 potential outcomes for the entire system using the SIMETAR© plugin for excel.

Results

The relationship between negotiated volumes sold and total volumes sold is as expected. Figure 9.3 shows that the periods of the year in which total volumes sold are highest in the two most at-risk regions roughly correlate to the periods in which negotiated volumes sold are highest. Differing incentives throughout the year may induce different negotiated sales volumes as a percent of total sales, but when you consider Figure 9.3 in a quarterly breakdown, the relationship between the two is clear. The reason for this relationship is simple: more fed cattle sales increase the likelihood that some buyer and seller will have some cattle sold via negotiated methods. The relationship between negotiated volume sold and total volume sold in a given quarter becomes important over time as the 75% Plan evaluates trade on whole values rather than percentages; quarters with seasonally lower sales may be more at risk for tripping triggers than quarters with higher total sales.

As the 75% Plan is evaluated on a quarterly basis and with the relationship between total trade and negotiated trade, it is important to know the quarters most at risk of failure in any given year. The Cumulative Distribution Functions (CDF)



Source: USDA/AMS.

Figure 9.3. 2015-2019 Five-Year Average Index of Negotiated Volume Sold and Total Volume Sold in Texas-Oklahoma-New Mexico and Kansas.

in Figure 9.4 contain the probability of different counts of cumulative weeks that meet negotiated trade levels necessary to avoid tripping a regional trigger during the first, second, third, and fourth quarters in Texas-Oklahoma-New Mexico, and Kansas (the two at-risk regions) in a given year.

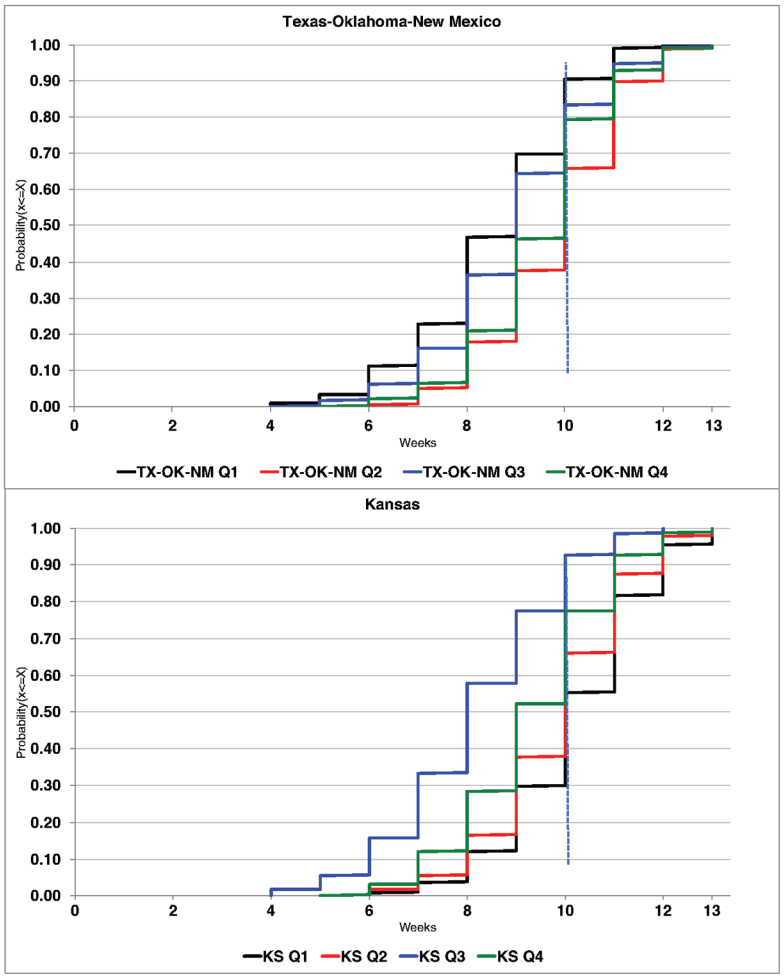


Figure 9.4. Cumulative Distribution Function of Weeks Meeting Negotiated Trade Meeting Regional Requirements Under the 75% Plan, Texas-Oklahoma-New Mexico and Kansas.

The further to the left a CDF falls, the greater the likelihood that negotiated trade during that quarter in that region will not meet the weekly threshold necessary often enough to avoid tripping a minor trigger. For example, in Texas-Oklahoma-New Mexico there is approximately a 70% chance that, during a given first quarter, negotiated trade will exceed 9,750 head fewer than 10 weeks. However, there is only a 37.8% chance that during a given second quarter negotiated trade will exceed 9,750 head fewer than 10 weeks.

The risk of failing to trade at 75% of negotiated volumes needed for robust price discovery for at least 10 weeks, per the NCBA 75% Plan, varies substantially by quarter. Figure 9.5 contains the probability of each quarter in each region tripping a minor trigger in a given year.

Since the Nebraska-Colorado feeding sector is expected to trip its minor trigger rarely, and Iowa-Minnesota is not expected to trip its minor trigger at any point, it is important to focus on the two at-risk regions. The risk of a major trigger represented in Figure 9.6 only represents the feeding sector and so half of the potential triggers are not included in those outcomes. Therefore, until the packer silo's triggers are set, the risk of simultaneous minor triggers being tripped in Texas-Oklahoma-New Mexico and Kansas is a better measure of the overall system risk. Figure 9.7 charts the same information as Figure 9.6; however, Figure 9.7 only includes the probability of simultaneous minor triggers being tripped in Texas-Oklahoma-New Mexico and Kansas.

The risk of Texas-Oklahoma-New Mexico and Kansas simultaneously tripping minor triggers before 2025 is substantially higher than the risk of the feeder

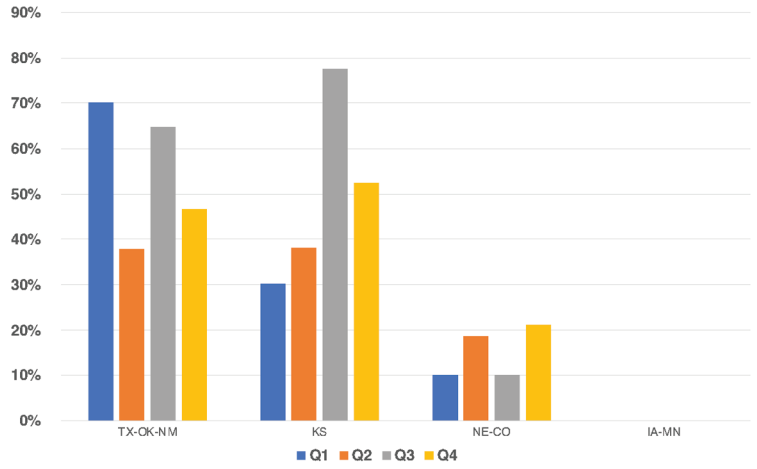


Figure 9.5. Probability of Failing 75% Volume > 3 Weeks in Quarter X, by Region.

silo alone triggering NCBA support for legislative action. In fact, on average the risk of Texas-Oklahoma-New Mexico and Kansas simultaneously tripping minor triggers before 2025 is 44 times the risk of the feeder silo triggering NCBA support for legislative action. Overall, it is 14 times more likely that Texas-Oklahoma-New Mexico and Kansas will simultaneously trip minor triggers than the likelihood that the industry will fail the 75% Plan based on the feeder silo alone.

Discussion

Why does the discrepancy in total system probability of triggering vs. the probability of at-risk regions matter? With the packer silo still not formed (as of this writing), there is no way to accurately measure the probability of those additional four triggers being tripped. In the best-case scenario, the risk of each minor packer trigger being tripped will be zero, and the overall risk distribution of the industry failing the 75% Plan over time will look like Figure 9.6. However, if we assume that there is any possibility of a packer silo trigger being tripped, the risk of the industry failing the 75% Plan over time looks like Figure 9.7. There is approximately a 48.8% chance of Texas-Oklahoma-New Mexico and Kansas simultaneously tripping their minor triggers in a given set of rolling quarters. That level of risk suggests that half the time that a single packer silo trigger is tripped, it will constitute a major trigger.

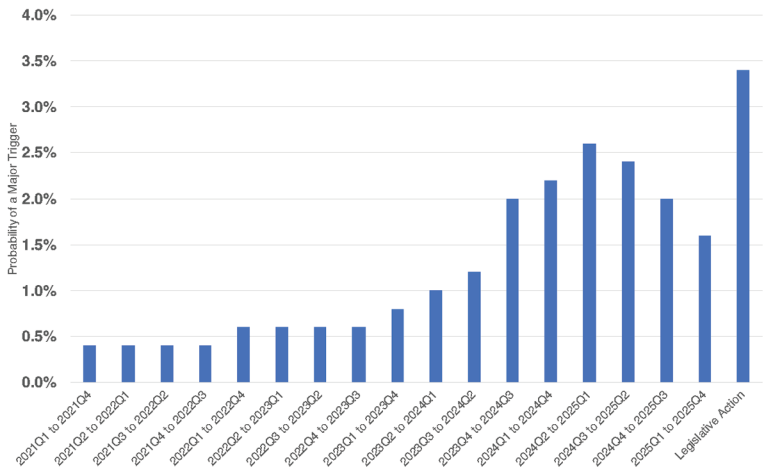


Figure 9.6. Probability of Only Feeder Silo Tripping a Major Trigger, Rolling Quarters 2021-2025; Probability of 75% Plan Triggering Legislative Action Before 2025.

The number of fed cattle sold via negotiated methods has increased since the 75% Plan was introduced. The need to construct the NSIF alone suggests that the announcement of the 75% Plan induced a change in negotiated volumes. During the first quarter of 2021, both Texas-Oklahoma-New Mexico and Kansas tripped their minor feeding silo triggers, but the number of fed cattle traded via negotiated methods grew over 2020. Every week in Texas-Oklahoma-New Mexico, and six of 13 weeks in Kansas, fed cattle traded via negotiated methods was above the minimum volume needed to achieve price discovery. In Texas-Oklahoma-New Mexico the number of fed cattle traded via negotiated methods was above the volume needed to achieve robust price discovery four of 13 weeks, robust price discovery being a higher threshold to cross. The same was true of Kansas three of 13 weeks.

The final outcomes of the 75% Plan will depend largely on two things; the structure of the triggers in the packer silo and continued efforts of cattle feeders to trade fed cattle via negotiated methods. If the rules of the packer silo yield similar results to the feeder silo as it stands, it is very likely that the industry will fail the 75% Plan. One region's packer silo minor trigger tripping regularly suggests an approximately 50% chance of the industry failing the 75% Plan.

There are potential fixes from the cattle feeder side. The need for further research remains and questions still need to be answered. How much will negotiated trade from the feeder side continue to exceed negotiated trade in previous

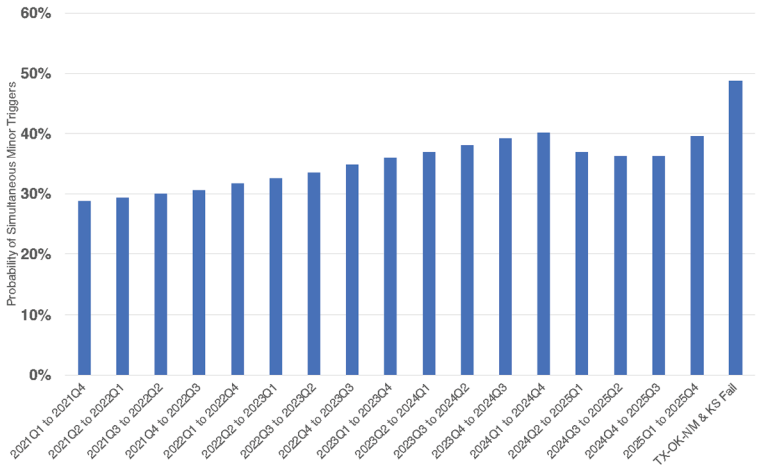


Figure 9.7. Probability of Texas-Oklahoma-New Mexico and Kansas Simultaneously Tripping Minor Triggers, Rolling Quarters 2021-2025; Probability of Texas-Oklahoma-New Mexico and Kansas Simultaneously Tripping Minor Triggers Once before 2025.

years? On average, how many more fed cattle must be traded weekly via negotiated methods to lower or eliminate the risk of one or two simultaneously tripped triggers in the at-risk regions? Will drought-induced liquidations force lower total fed cattle sales in the future once the cow herd is reduced, and if those lower total sales lead to lower negotiated sales, does long-term drought constitute force majeure? Are adjustments to the plan necessary to facilitate more realistic outcomes? Is a hard number of negotiated volume the best way to ensure increased prices? Most importantly, what is the ultimate impact of the 75% Plan on prices received at the fed cattle and feeder cattle levels?

References

Agricultural Marketing Service. (2020) *User's Guide to USDA LMR Cattle Price Reports*. Washington D.C.

Agricultural Marketing Service. (2021) *MPR Data Mart*. Washington D.C.

Bohn, J., Buse, K., Horn, S., Kooima, B., Levi, J., Sander, T., and Stowater, T. (2020) *A Voluntary Framework to Achieve Robust Price Discovery in the Fed Cattle Market*, National Cattlemen's Beef Association - Center for Public Policy, policy.ncba.org/Media/Policy/Docs/ncba-regional-triggers-subgroup-report-overview-presentation_10-16-2020-53.pdf.

Cowen, R. (2021) *Cattle*. Washington, D.C.

Koontz, Stephen R. Colorado State University (2017) *Price Discovery Research Project - What Volume of Cash Trade Is Needed for Price Discovery*?

Martinez, C.C., Maples, J.G., and Benavidez, J. (2020) Beef Cattle Markets and COVID 19. *Appl Econ Perspect Policy*, 43: 304-314. https://doi.org/10.1002/aepp.13080

Richardson, J.W., Schumann, K.D., and Feldman, P.A. (2008) *Probability Distributions Simulated in Simetar*, "Simetar: Simulation & Econometrics to Analyze Risk," Ch. 3: 8-28.

Tomek, W.G. and Kaiser, H.M. (2014) *Mechanisms for Discovering Price*. "Agricultural Product Prices," Ch. 11: 238-260.

Chapter 10

Workshop Discussion Summary

David P. Anderson

The authors of the various chapters in this book presented their findings at a two-day workshop in Kansas City, MO, from June 3-4, 2021. The workshop was open to the public, and time was reserved for Q&A following each presentation. In addition, at the end of each day, a formal discussion panel offered feedback on the presentations.

The discussants were selected to represent a diverse cross-section of the industry. Following are their bios at the time of the workshop:

- **Michael Nepveux** serves as an Economist at the American Farm Bureau Federation. His issue portfolio consists of livestock and dairy markets, farm bill and federal crop insurance, renewable fuels, and hemp issues.

- **Shelby Horn** is currently part of the management team for Abell Livestock, a commercial cow-calf/stocker operator with ranches in Texas, Florida and New Mexico. Horn serves on the Board of Directors of Texas and Southwestern Cattle Raisers Association and is a member of the National Cattlemen's Beef Association Marketing Committee.

- **Don Close** is the cattle market analyst for Rabobank, one of the largest agricultural lenders in the world. He has had a 40 year career in agriculture and livestock markets, including at a packer startup and as a market analyst at the Texas Cattle Feeders Association. He speaks around the country on cattle market issues to audiences of ranchers and other segments of the industry. He is a well known and respected cattle market analyst.

- **Justin Tupper** is the owner and operator of St. Onge Livestock Auction Company. He is a leader in cattle organizations, including serving as Vice President of U.S. Cattlemen's Association, and a participant in recent leadership meetings of all the national livestock organizations. He has also testified before Congress on livestock market issues. He brings an important perspective as a livestock auction company owner to the fed cattle price discussion at the workshop. He also brings an important regional perspective on fed cattle pricing issues.

Initial drafts of the papers (that eventually became chapters in this book) were provided to the discussants in advance so they had time to prepare for the workshop. They were invited to highlight where they agreed or disagreed with the presentations and to identify issues they thought were not sufficiently addressed. The discussion panels also spurred a number of audience questions and comments.

While it is virtually impossible to fully capture two days of formal and information discussions in a succinct manner, this chapter attempts to highlight the major themes/comments that arose from the discussants and/or the audience. Further, it was made clear at the workshop that any comments would not be attributed to individual particpants so as to encourage robust discussion; as a result, the comments below are offered as-is with no attribution to individual participants.

Complexity

- In responding to Dr. Derrell Peel's point about the complexity of the beef industry (as noted in Chapter 1), one discussant observed that there are no easy solutions to solve the problems of price discovery (and others) addressed in this workshop. The complexity of the system suggests that it might be likely that proposed solutions are either ineffective or are counterproductive.

- One view expressed by a discussant was that, while complex, efficiency in the marketplace is quite strong. The efficiency of production practices and the speed with which information moves through the marketplace is incredibly fast. Market information and price signals move through the market faster than legislation.

AMAs Have Value

- The general view was that AMAs have value to both buyers and sellers. AMAs have led to the implementation of value-based marketing that has increased cattle and beef quality throughout the industry. Ranchers have drastically changed the genetic makeup of their herds due to value-based marketing. There appeared to be little interest in the audience in going away from (or backtracking from) the improved beef quality that AMAs have fostered, although some did question if the value provided by AMAs is worth the perceived tradeoff in transparency.

- Some pointed out that premiums and discounts for quality are not going away and, in fact, are going to become more valuable over time, including for both feeder cattle and calves. In fact, the entire beef supply chain has had to adapt to accommodate the production of beef with specific attributes. To that end, the days of buying on average (i.e. not differentiating for quality) are numbered.

Packing Capacity

- One view of capacity constraints might suggest that one part of the industry has low barriers to entry and a very liquid market; the other side of the industry has high costs of entry and limited liquidity. These conditions describe cattle production and meat packing, respectively. Cattle producers, at times, outproduce fixed plant capacity to process the cattle. With those industry differences, there are times when the supply of cattle is out of balance with the ability to slaughter those cattle. The relative balance of the supply of cattle and capacity creates leverage for either the buyer or the seller.

- One estimate was that packing capacity needs to increase 4,000-5,000 head per day to alleviate the packing capacity constraint. Recent press releases have indicated about 9,000 head per day in expansion is currently planned. While not all of the proposed facilities may be built, when some of those come on line – coupled with fewer cattle, cyclically – cattle prices may take off like a rocket. In this case, packing capacity exceeds the number of cattle produced, leading to a change in the competitive position of feeders and packers.

- Another concern expressed was about reinvestment by current major packers into new plants. The level of profits generated over the last 2 years has not resulted in expansion and that has led to frustration by many cattle producers.

- Others noted there are constraints to packing expansion, and the labor constraint is an important one. One solution to the lack of labor is additional investment in robotics. There might be a role for government action in this area by funding research on robotics. Those systems might be targeted to smaller plants, whose success would expand capacity, increase competition, and might increase price discovery.

- A question came from the audience about whether or not new small plants would participate in the negotiated cash market and if it matters how they buy cattle? The answer from one discussant was that it shouldn't matter how they buy cattle, but at least they would provide more competition in the marketplace.

Risk Management

- One discussant noted that price discovery is important in another way that was not addressed by the presenters. Accurate spot prices, discovered prices, affect the futures market. If cattle prices are not accurate, then there's no way to have a viable risk management tool to hedge

risk. Or, at least, futures market prices would have to rely on some other mechanism than inaccurate spot prices to be useful. A downsteam impact of inaccurate price discovery would be spill-over effects in the futures market and the loss of useful risk management tools. Livestock risk management through crop insurance policies like Livestock Risk Protection (LRP) also relies on the futures market.

A Profitable Industry

- The discussion made it clear that certainly some of the worries about price discovery exist because of difficult times for cattle producers. Low prices and the lack of profits have occurred at the same time as, seemingly, record profits for packers. Some of the discussion centered around the need for a profitable industry in all segments and not just one. The view was expressed for the industry to be healthy long-term, there need to be profits in every segment.

Market Transparency

- One discussant addressed the topic of confidentiality. The prevailing view expressed was that if a trade happens, USDA should report the price, arguing that eliminating confidentiality constraints would greatly increase transparency. They argued it would also reduce worries about "sweetheart" deals where the playing field is not level. Trades often happen very quickly, over the course of only an hour. In that quick market action, does confidentiality really matter?

- The contract library addressed in some legislation was viewed positively by the discussants. The library would, at least, add some information for producers to know what has been offered. Examples from the hog market contract library were discussed as an example of how a cattle contract library might work. While the contract library was viewed positively, it was noted that there are clear limitations on what a contract library can be expected to solve in terms of price discovery and/or transparency.

Market "Rules of the Road"

- Several discussants expressed a series of ideas that might be termed "defining the rules of the road for the market." The losses suffered by cattle producers compared to the apparent profits by the packing sector over the last 2 years suggests to some that there is a problem. One view is that there needs to be a referee. Recent legislative options offer some additional rules for the market. More effective Justice Department actions would also provide some market oversight.

Price Discovery

- There was a general discussion about the fact that price discovery is important throughout the industry, not just for fed cattle. Prices at the fed cattle level certainly affect calf prices and wholesale and retail beef prices. Every price throughout the beef value chain is related to fed cattle prices.

- One of the interesting issues in price discovery (or in the market working) is the issue of having a second bidder in the market. This idea was brought up in the second day's discussion session. The view of one discussant was that he views this bidder as the most important. A second bidder, in this view, is someone who is actively bidding for cattle and they want to buy. They force the bid winner to really work for the cattle. So, the second bidder has to be honestly bidding to get the cattle, it just so happens that they don't win. But, the problem was viewed that there is often no second bidder in cattle markets. This issue is also related to competitiveness and market power.

- Discussion on both days included how thin is too thin for adequate price discovery. During the discussion, one of the authors noted that if all the research on price discovery was summarized very briefly it would say that markets can be a lot thinner than you think and still work very well. While the academics in the room seemed reluctant to drive a stake in the ground and say this is all you need, it is because there are times in the market that you need a lot more trades to get price discovery because there is some uncertainty in the market. A good example might be in the height of the COVID-19 pandemic, or when a cow with bovine spongiform encephalopathy (BSE) was discovered, or when some other economic turmoil hits and there is a huge amount of uncertainty, then you need more cattle traded. But, when there are not big events happening that cause turmoil, then the number needed to trade is likely very small. So, there is no right number that works for every week. The number that need to trade is likely different depending on events.

- Others noted that it is also not clear what low price discovery means. It's not clear that we are close to losing it either. Many people assume that if we had more discovery, we would see higher producer prices. That is not at all clear and the end result might be the opposite.

- One participant expressed the notion that giving up known benefits for an unknown cost is a difficult policy step to take.

Research

- Discussants identified a need for more research on these topics to be able to make the most informed decision they can. There is a lot of research about the value of AMAs and estimated costs of not having AMAs. But, there are other questions about what happens in the market if there is no discovery or if trading becomes so thin there is no confidence in the market.

- There was general discussion about a view of research – related to price discovery – that we can't destroy price discovery in the pursuit of efficiency. In pursuit of efficiency, we may lose price discovery to the detriment of cattle producers. Research could build on what has been presented in this conference to explore how far negotiated trade can be pushed and still have adequate price discovery. Research might also examine the tradeoffs between efficiency and discovery.

- The view was expressed that a lot of price discovery questions could be answered with more access to LMR data. There is a lot of data that is not publicly released. Obtaining some access to that data to answer a variety of price discovery research questions would likely help in shedding light on the market for buyers and sellers.

- While most research shows that very little market power is exerted by packers, the view was expressed that this topic needs to be monitored and periodically revisited due to the concentrated nature of the industry.

AMS and NASS

- Discussion also revolved around the good work that USDA's Agricultural Marketing Service (AMS) does in disseminating information. While they face many constraints, some self inflicted, they do a tremendous amount of good work in reporting prices to help producers know what is happening in the marketplace. USDA's National Agricultural Statistics Service (NASS) was also praised for the job they do in developing market data. The lack of data in other countries was viewed as a real constraint.

- Another comment focused on the difficulty in getting more market data reported by AMS because it often requires industry consensus. That is difficult to get sometimes given competing interests.

Voluntary Solutions

- Participants discussed the fact that voluntary industry efforts have increased negotiated trade. Those efforts have resulted in more feeders offering more cattle in negotiated trade. However, packers are not showing up to buy them. There are packers who refuse to buy cattle in a negotiated format. So, voluntary solutions have worked to some extent, but it does take more buyers to be willing to participate.

- There is a view that there are some packers who are tone deaf to the problems in the market. Those sharing that view expressed frustration that the packers have been unwilling to participate in voluntary solutions. The view is that they will not work on voluntary measures unless they are required to.

The discussion as a whole illustrated that in an audience of cattle industry stakeholders, the viewpoints on solutions to current concerns about cattle markets are highly diverse. There was general agreement that price discovery matters to the functioning of cattle markets, including fed cattle markets, but any needed policy changes remain an open question. With that said, there seemed to be general agreement on concerns about unintended consequences of otherwise well-intentioned policy changes.

In 2020, at the request of the bipartisan leadership of the Committee on Agriculture in the U.S. House of Representatives, USDA was asked to commission a study to look into the issues surrounding fed cattle pricing. Ultimately, USDA partnered with the Agricultural and Food Policy Center (AFPC) at Texas A&M University, and this book is a culmination of that request.

In carrying out our work, papers were commissioned from noted experts around the country on a variety of topics, ranging from a history of how the industry arrived at this point to an initial evaluation of voluntary proposals introduced by industry to address some of these pressing challenges. AFPC hosted a workshop in Kansas City, MO, on June 3-4, 2021, where the authors of the respective papers presented their findings. Four discussants – representing a diverse cross-section of the industry – were invited to offer a formal response. The workshop was open to the public, and participants offered a number of helpful comments.



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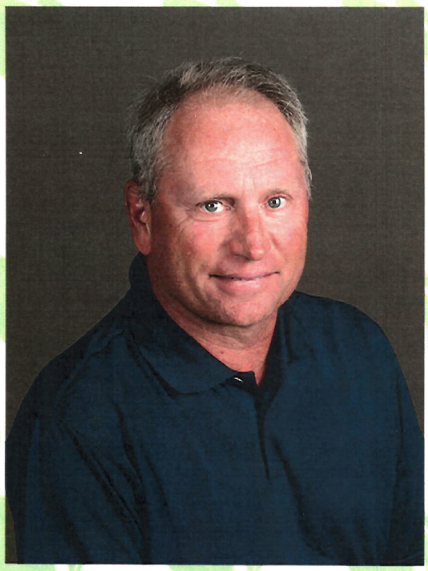

Opinion: Remember who represents your interests

Brad Kooima (/authors/428-brad-kooima)
January 31, 2022

Despite attempts by the meatpacking industry to quash meaningful cattle market reform, support for the Cattle Price Discovery and Transparency Act remains strong in the countryside. There's no shortage of support on Capitol Hill, either.

The Senate bill, led by Sens. Chuck Grassley, R-Iowa, and Deb Fischer, R-Neb., has 16 total cosponsors who represent 13 states. Nearly half of the Senate Agriculture Committee supports this legislation. The House bill, introduced by Reps. Cindy Axne, D-Iowa, and Randy Feenstra, R-Iowa, is supported by seven total representatives.

This bipartisan legislation is the only comprehensive solution that's being discussed in Congress at this time, and it's seen as a real threat to the meatpacking industry. That is why a national organization representing packers and economists from Tyson Foods' home state are fighting so hard to maintain the status quo.

Let it be known that packers are not concerned with price discovery, and have no incentive to participate in the cash market. Their sole focus is to build a pipeline of supply for their plants. Packers are not concerned with where they get their cattle from; it's just a numbers game. But the numbers aren't adding up for producers who struggle to meet their breakevens or sell their livestock due to lack of competition.

There is a disproportionate share of cash trade taking place in the Iowa/Minnesota and Nebraska cattle feeding regions. We have more than enough cash activity to provide the price discovery needed. The lower half of the beef belt, particularly Texas/New Mexico/Oklahoma, does not trade enough cash cattle to have price discovery. This has created a "free-riding" dynamic that benefits only a select few.

Many large and/or corporate feeders are rewarded for the quantity of cattle they sell, which provides efficiency to cattle buyers as they procure cattle for packers. This isn't about quality, it's about quantity. If quality was the primary focus, you'd see more lucrative formula contracts offered to producers in states like Iowa, where most cattle grade 85 percent Choice or Prime on a regular basis.

The Cattle Price Discovery and Transparency Act doesn't pick favorites, as some have claimed. The legislation allows for public input, relies on historical data, and provides flexibility to adapt regional mandatory minimums for negotiated and negotiated grid transactions every two years.

And while the bill makes no mention of price determination, we know that more competition in the cash market would be beneficial to independent cattle producers.

This legislation will help to ensure that independent cattle producers who sell via negotiated means are no longer shut out of the market by packers with every hiccup (big or small) in the supply chain. Despite raising some of the highest-quality cattle in the nation, we're often treated as residual suppliers because of our operating capacity. We cannot continue to be singled out by packers every time there is a fire at a shoddy plant, a computer hack, or a labor challenge. And we shouldn't be shut out of the market for weeks or months at a time so the packers can work through their captive supply.

Remember, the North American Meat Institute is the oldest and largest trade association representing U.S. packers and processors of beef, pork, lamb, veal and turkey. They do not care about independent producers. They are not interested in price discovery or transparency. And if they care about the consumer as much we're told, they'd focus their efforts on strengthening the beef supply chain. The complete and utter failure to maintain supply on the shelves of retailers for consumers during the pandemic should've been a wake-up call.



Iowa Cattlemen's Association

April 25, 2022

The Honorable Debbie Stabenow
Chairwoman
U.S. Senate Committee on Agriculture,
Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC 20510

The Honorable John Boozman
Ranking Member
U.S. Senate Committee on Agriculture,
Nutrition, and Forestry
328A Russell Senate Office Building
Washington, DC 20510

Re: Legislative Hearing to Review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S. 3870, the Meat and Poultry Special Investigator Act of 2022

Dear Chairwoman Stabenow, Ranking Member Boozman, and members of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry:

The Iowa Cattlemen's Association (ICA) is a grassroots organization representing nearly 8,000 cattle producers and stakeholders affiliated with the cattle industry. As the definitive voice of Iowa's beef business, we have a responsibility to amplify messages from our members to key decision makers. The commitment of our members to improve the state of the fed cattle market has led us to forge our own path despite pushback from major meatpackers, economists, and corporate feedyards.

For several years, we've asked Congress to enact legislation that would help level the playing field between meatpackers and producers. We've expressed the need to address the following primary challenges: lack of price discovery and transparency, meatpacking industry consolidation leading to fewer competitors, captive supply, and price manipulation. We've also called on the U.S. Department of Agriculture and the Department of Justice (DOJ) to investigate meatpackers for collusion, price manipulation, and market disruptions.

Various members of Congress, including Sens. Chuck Grassley and Joni Ernst, have responded by introducing legislation and holding various hearings, yet nothing has come to fruition. The DOJ initiated an investigation of the four largest meatpackers in June 2020, yet we've received no updates. These concerns even reached the Whitehouse, which resulted in the President of the U.S. convening a producer roundtable to discuss the need for greater competition in beef processing.

In July 2021, ICA member Jon Schaben testified as a witness before the Senate Judiciary Committee.[1] The sentiment of the testimony we submitted nine months ago is unchanged; it is time for Congress to support a transparent and competitive marketplace with action.

[1] "Written Testimony of the Iowa Cattlemen's Association." *Iowa Cattlemen's Association,* 28 July 2021, https://www.judiciary.senate.gov/imo/media/doc/Schaben%20-%20Testimony.pdf.

2055 Ironwood Ct. · Ames, Iowa 50014 · Phone 515-296-2266 · FAX 515-296-2261

We encourage members of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry to support the following bipartisan and bicameral bills:

1. **Cattle Price Discovery and Transparency Act of 2022** - to prevent further erosion of negotiated trade and price discovery, improve transparency, and level the playing field between meatpackers and producers with access to information;
2. **Meat and Poultry Special Investigator Act of 2022** - to address anticompetitive practices in the meat industry by better enforcing the Packers and Stockyards Act; and
3. **A-PLUS Act** - to increase meat processing capacity by allowing livestock auction market investment in small and regional packing facilities.

Additionally, we ask this committee to request a long overdue update from the DOJ regarding the antitrust investigation of Cargill, JBS, National Beef, and Tyson Foods. We're quickly approaching the two-year mark since the civil investigative demands were issued. While we've been waiting for results from the DOJ, the packers have been busy. Despite claiming no wrongdoing, JBS recently agreed to pony up $52.5 million in a price-fixing lawsuit.[2]

The naysayer rhetoric is strong; we've been told that nothing is wrong with the fed cattle market, alternative marketing arrangements have improved quality, and no research has been conducted to determine thresholds for robust price discovery. We've also been informed that "voluntary, industry-driven" efforts are working; know that will certainly change if Congress does not require meatpackers to procure a portion of their cattle via negotiated means. The aforementioned opinions merely protect the interests of meatpackers and corporate feeders who benefit from lucrative formula contracts.

Our beef supply chain starts on our nation's farms and ranches. If cattle producers are unable to mitigate risk or use market signals to make informed business decisions, how can we expect them to stay in the black on their balance sheets? When will Congress address the problems they have allowed to develop over the past century?

Cattle producers know and understand the meaning of the saying "All hat and no cattle." It's not a phrase of endearment. We've made our elected and agency officials aware of the challenges we face as producers, yet the circumstances remain unchanged. Now is the time for Congress to act.

Questions related to this letter may be directed to Cora Fox, director of government relations, at (515) 296-2266 or at cora@iacattlemen.org.

Respectfully,

Bob Noble

Bob Noble
President, Iowa Cattlemen's Association

[2] "Beef giant JBS to pay $52.5 million to settle price-fixing lawsuit." *Des Moines Register*, 4 February 2022, https://www.desmoinesregister.com/story/news/2022/02/04/jbs-settles-lawsuit-millions-price-fixing-beef-processors-meatpacking/6664089001/.

NEBRASKA CATTLEMEN

"Working for Nebraska beef producers – pasture to plate."

April 25, 2022

The Honorable Debbie Stabenow, Chairwoman
The Honorable John Boozman, Ranking Member
Senate Committee on Agriculture, Nutrition & Forestry
328A Russell Senate Office Building
Washington, DC 20510

Re: Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022.

Dear Chairman Stabenow, Ranking Member Boozman, and members of the committee:

Nebraska Cattlemen is grateful for the opportunity to share our member's thoughts regarding S. 4030, the Cattle Price Discovery and Transparency Act of 2022. Our association is a grassroots membership organization representing thousands of farmers and ranchers from every scope and sector of the beef cattle industry in Nebraska. My comments today will primarily focus on the need to compel price discovery, while noting our appreciation of the components of S. 4030 that focus on price transparency.

Our beef cattle producer members and their livelihoods are directly impacted by the cattle market's ability or inability to send appropriate price signals up and down the beef cattle supply chain. In the past decade, those price signals have encouraged ranchers to expand their cow herds and cattle feeders to expand their feeding operations as domestic and global demand has exponentially grown like few could have imagined. Yet today, as wholesale beef prices start to shift from historic highs, the percent of the available profit margins in the beef supply chain passed onto cattle producers remains disproportionally low.

It has become painfully apparent to our members that, in recent years, the ability of the cattle market to send the correct price signals to producers is broken. For the greater part of a decade, fed cattle price transparency and price discovery have been a headline issue for members of our organization. Ideally, Nebraska Cattlemen would have preferred to share our members' concerns in person at today's hearing. Our producer members choosing not to testify in person today shows just how precarious and dire this situation has become within the industry and live cattle markets. Our members have voiced agreement that market issues need to be addressed, still none of our producer members we encouraged to testify were willing to put themselves out front for fear of possible retribution by other market participants - an unfortunate reality of today's cattle industry.

Where we are today is not a result of an evil plot to purposely stifle ranchers' livelihoods. Instead has been a progression - across the beef supply chain over the last two decades to become increasingly more efficient in fed cattle marketing and inventory management as an industry through alternative marketing agreements (AMAs). While these efficiencies have benefited some, they came at the cost of robust price discovery and market leverage for other producers. Undoubtedly, you will hear today about the positive industry effects of AMAs, otherwise defined by USDA Livestock Mandatory Reporting as "formula" trades, which have helped incentivize the production of higher quality beef. Please realize, however, that the long-term proliferation of

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AMA's has also led to a continued deterioration of price discovery as beef packers have financially incentivized the commitment of cattle without price negotiation.

Price discovery is a public good. Negotiated cash market participants invest resources to negotiate and discover cash market prices for the entire industry, while those who utilize AMAs capitalize on that investment, benefit from the efficiencies, and use the prices discovered by cash market participants. This type of scenario is best described as a tragedy of the commons. When an increasing number of market participants overuse a public good or "shared resource" for their own short-term best interest, abuse of the shared resource results in less value of that resource overall for everyone in the long run. Until the price discovery "public good" is better valued, the industry could continue this downward trend until there is little to no negotiated trade left and price determination will need to rely on other outside markets. Data to support this claim can be found attached to this testimony in a report titled *Annual LMR Live Cattle Purchase Type Breakdown by Region.*

How does our industry correct this course? Continuing to focus on expanding options for market participants to participate in price discovery is key. Our members seek options that contribute to price discovery, like working with the packing industry to sell on a negotiated grid - a mechanism that allows producers to garner premiums for higher-value cattle while still participating in the price discovery process by offering their cattle to numerous buyers. However, producers have grown frustrated with the lack of willingness of all packers to offer this marketing option. To incentivize packers to participate in the negotiated market and contribute to price discovery, the industry must either mandate participation, financially incentivize negotiated trade, or penalize entities who continually show a lack of participation in the price discovery process. We fully realize and acknowledge that the provision of the bill that requires regional mandatory minimums for the purpose of compelling price discovery for cattle market participants expressed in S. 4030 is a concern for some cattle industry participants, yet there has not been an entity or organization that has identified an effective alternative to achieve the goal of compelling price discovery.

An additional source of frustration for our members is the continued perception that all AMAs reward carcass merit and therefore lead to the production of higher quality cattle. Last summer, Nebraska Cattlemen worked with USDA-AMS to gain additional insight into the mix of transaction types that comprise the "formula" fed cattle price and volume data that USDA-LMR reports. Specifically, Nebraska Cattlemen sought more information regarding the total volume and/or percentage of total reported "formula" headcounts that are transacted in such a way that USDA quality and/or yield grade parameters have a bearing on the final price paid vs. the volume and/or percentage of total reported volume where that is not the case.

Analysis of USDA-LMR data from January through mid-May of 2021 indicated rather clearly that in the Nebraska and Iowa/Southern Minnesota LMR regions (compared to other regions), there is a higher percentage of cattle that fall into the "formula" transaction type that are simply marked at the LMR weekly Nebraska dressed steer weighted average price, or possibly that data point plus some predetermined premium. However, still there are no other premiums or discounts applied relative to quality grade or yield grade. We understand why this type of transaction falls into the "formula" data as it is not a negotiated cash sale, a negotiated grid sale, or a contract purchase - however, we also see it to be somewhat different than a transaction that involves quality and or yield grade premiums and discounts. Our specific ask was to look at

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the prevalence of this type of transaction type in the LMR "formula" data set on a regional, 5-area, and nationwide scale.

The results showed that the northern regions, specifically Nebraska and Iowa/Minnesota, exhibited the highest proportion of transactions with no premium or discount applied. With the quality of the cattle/beef not having any direct impact on the net price paid for cattle marketing in this manner, it would appear that any premium paid by the buyer is essentially done to reward suppliers for furnishing unpriced inventory and consequently reducing the buyers need to participate/compete in the negotiated market and contribute to the price discovery process. A copy of this report can be found attached to this testimony titled *Highlights of the Evaluation of Formula Based Cattle Purchases*.

Another key component to price discovery and price determination is market transparency. S. 4030 takes significant action to address many of our members' concerns regarding market transparency. Specifically, the adoption of the beef contract library and the 14-day slaughter reporting window.

Thank you for the opportunity to share the thoughts and concerns of Nebraska Cattlemen members. As we continue to work towards finding solutions to increase fed cattle market transparency and expand price discovery to robust levels, we look forward to being at the table to talk through solutions and take actions to protect our members' family legacies

Best,



Brenda Masek
President - Nebraska Cattlemen

CC: Senator Deb Fischer

Addendum: Annual LMR Live Cattle Purchase Type Breakdown by Region & Highlights of the Evaluation of Formula Based Cattle Purchases

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Annual LMR Live Cattle Purchase Type Breakdown by Region

NATIONAL																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	52.1%	49.4%	47.3%	42.6%	38.8%	37.4%	32.6%	26.0%	23.1%	23.1%	21.3%	25.6%	25.7%	25.5%	20.9%	23.4%	19.5%
Formula	33.2%	34.3%	37.4%	39.1%	43.7%	43.1%	47.4%	54.8%	59.8%	56.8%	57.0%	57.6%	57.2%	61.1%	64.8%	62.7%	61.0%
Forward Contract	4.8%	7.2%	6.8%	11.2%	9.5%	11.9%	13.2%	12.0%	10.8%	15.8%	17.5%	12.7%	13.0%	9.6%	11.0%	8.9%	10.9%
Negotiated Grid	9.9%	9.0%	8.5%	7.1%	8.0%	7.6%	6.7%	7.2%	6.3%	4.3%	4.2%	4.1%	4.1%	3.8%	3.3%	5.0%	8.6%

5-AREA																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	55.8%	52.0%	49.8%	45.3%	43.2%	42.4%	36.8%	27.8%	24.1%	24.0%	21.3%	26.3%	26.8%	26.1%	20.5%	23.3%	19.4%
Formula	31.9%	33.3%	35.9%	38.1%	42.3%	42.2%	46.5%	56.2%	61.8%	58.7%	58.8%	59.4%	59.5%	64.2%	69.6%	67.0%	64.7%
Forward Contract	4.6%	7.1%	6.8%	10.4%	8.1%	9.9%	10.9%	10.0%	8.6%	13.7%	16.7%	11.2%	10.8%	7.0%	7.6%	5.4%	7.7%
Negotiated Grid	7.7%	7.7%	7.5%	6.3%	6.4%	5.5%	5.7%	5.9%	5.4%	3.6%	3.2%	3.1%	2.9%	2.7%	2.3%	4.3%	8.2%

TEXAS -OKLAHOMA-NEW MEXICO																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019*	2020	2021
Cash	47.2%	42.5%	36.7%	31.5%	26.4%	21.5%	17.0%	10.2%	6.1%	3.0%	2.6%	6.4%	9.3%	6.2%	5.4%	10.1%	7.4%
Formula	42.2%	42.2%	48.4%	53.3%	60.4%	66.9%	72.7%	76.0%	83.0%	84.6%	85.9%	82.4%	81.8%	86.2%	87.9%	84.2%	80.8%
Forward Contract	3.1%	5.0%	4.4%	5.8%	5.4%	4.9%	4.4%	5.4%	4.0%	7.4%	9.3%	7.0%	6.2%	4.9%	5.3%	4.3%	5.0%
Negotiated Grid	7.5%	10.3%	10.5%	9.3%	7.8%	6.7%	5.9%	8.4%	6.9%	5.1%	2.1%	4.2%	2.6%	2.7%	1.6%	1.4%	6.8%

KANSAS																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	50.6%	47.3%	44.8%	41.7%	39.9%	41.0%	36.9%	27.4%	21.0%	15.6%	12.5%	23.0%	21.9%	19.3%	16.2%	18.2%	12.5%
Formula	44.8%	46.0%	48.5%	48.0%	52.1%	51.6%	54.1%	63.6%	68.5%	69.5%	64.8%	67.3%	70.7%	76.4%	81.6%	76.7%	74.4%
Forward Contract	2.8%	5.4%	5.4%	7.8%	7.0%	6.3%	7.1%	5.7%	6.5%	14.3%	22.2%	9.3%	7.0%	3.9%	1.7%	1.4%	3.8%
Negotiated Grid	1.8%	1.3%	1.3%	2.4%	1.0%	1.0%	2.0%	3.4%	4.0%	0.7%	0.6%	0.4%	0.4%	0.4%	0.5%	3.7%	9.3%

NEBRASKA																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	64.6%	63.7%	64.7%	61.0%	60.4%	55.8%	48.3%	38.9%	36.4%	38.3%	32.6%	42.1%	41.3%	43.0%	32.9%	36.1%	31.1%
Formula	18.3%	16.8%	17.8%	17.8%	22.6%	23.4%	28.7%	41.0%	48.4%	42.6%	44.4%	42.0%	41.0%	45.2%	52.4%	54.0%	52.1%
Forward Contract	5.8%	9.7%	7.8%	14.7%	9.0%	14.0%	15.6%	14.8%	10.2%	14.7%	17.7%	12.7%	13.5%	8.5%	11.7%	4.6%	8.8%
Negotiated Grid	11.3%	9.8%	9.6%	6.5%	8.0%	6.7%	7.4%	5.3%	5.0%	4.4%	5.3%	3.2%	4.2%	3.3%	3.0%	5.3%	8.0%

COLORADO																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018*	2019**	2020**	2021**
Cash	51.8%	40.7%	39.6%	28.5%	28.8%	19.7%	17.9%	12.5%	10.6%	11.2%	8.3%	13.8%	16.0%	13.5%	N/A	N/A	N/A
Formula	30.1%	46.7%	46.3%	54.5%	57.9%	64.0%	64.1%	69.1%	71.4%	64.1%	70.8%	73.4%	69.4%	74.5%	N/A	N/A	N/A
Forward Contract	8.6%	7.3%	7.5%	13.3%	10.5%	14.4%	16.0%	16.8%	16.8%	24.1%	20.3%	12.2%	14.1%	10.9%	N/A	N/A	N/A
Negotiated Grid	9.5%	5.3%	6.6%	3.8%	2.7%	1.9%	2.0%	1.6%	1.2%	0.6%	0.6%	0.6%	0.5%	1.1%	N/A	N/A	N/A

IOWA-MINNESOTA																	
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Cash	73.9%	68.8%	68.8%	66.7%	63.9%	65.6%	61.8%	56.4%	54.6%	57.0%	56.7%	50.9%	51.0%	57.1%	50.0%	51.2%	47.5%
Formula	7.2%	8.4%	8.2%	9.0%	10.3%	11.2%	10.9%	20.5%	23.2%	20.3%	20.2%	21.1%	21.3%	22.3%	25.3%	24.7%	24.9%
Forward Contract	7.1%	10.2%	13.3%	16.7%	13.2%	13.9%	17.1%	13.2%	13.8%	17.1%	16.1%	20.1%	19.8%	13.6%	17.8%	15.6%	17.4%
Negotiated Grid	11.8%	12.6%	9.7%	7.6%	12.6%	9.3%	10.2%	9.9%	8.4%	5.7%	7.0%	7.9%	7.9%	7.0%	6.9%	8.5%	10.2%

Source: USDA AMS Livestock, Poultry & Grain Market News

***Dataset has a minimum of one quarter removed due to 3/70/20 confidentiality guidelines**

****Entire dataset removed due to 3/70/20 confidentiality guidelines.**

USDA
United States Department of Agriculture

Highlights of the Evaluation of Formula Based Cattle Purchases

Formula purchase arrangements of fed cattle use an agreed to methodology of calculating the net price. The final net price for some formula purchases may include the application of any premiums or discounts associated with carcass performance as specified in the transaction agreement. In response to the cattle industry's desire for more transparency in the formula slaughter cattle market, AMS conducted an evaluation of formula-based cattle purchases reported under the requirements of the Livestock Mandatory Reporting Act and regulation to learn more about the makeup of these purchases. More specifically, AMS analyzed formula net price data for slaughter cattle purchases reported between January 4, 2021 and May 31, 2021, to evaluate the proportion of these formula purchases with no premium or discount applied and therefore likely priced from data referenced on another AMS report; versus similar formula cattle purchases that also included at least one premium or discount for quality, yield, weight, or other factor. Further, AMS evaluated this on a regional basis to see if there were any marketing differences among the states across the 5-area region.

Here are a few of the highlights found from this evaluation:

- Despite some variations among the five regions, a solid majority of formula purchases in all areas do have at least one premium or discount applied.
- The northern regions of Nebraska and Iowa/Minnesota exhibited the highest proportion of transactions with no premium or discount applied.
- While the proportion of cattle in which no premium or discount was applied likely represents formula transactions limited strictly to price reference methodology, it's also possible that some of these cattle simply met baseline specifications in which no premium or discount thresholds were triggered. A complete determination cannot be made under the current LMR reporting requirements.

LMR Formula Net Premium/Discount Application Percentages Jan-May 2021

	National	5-Area	TX/OK/NM	KS	NE	CO	IA/MN
At least 1 Premium or Discount was Applied	82%	82%	86%	85%	74%	84%	65%
No Premium or Discount Applied	18%	18%	14%	15%	26%	16%	35%

* 5-Area - Texas, New Mexico, Oklahoma, Kansas, Colorado, Nebraska, Iowa, Minnesota.
TX/OK/NM - Texas, Oklahoma, New Mexico; KS – Kansas; NE – Nebraska; CO – Colorado; IA/MN – Iowa, Minnesota.

Sen. Fischer sees momentum for increased competition in cattle markets

- Henry J. Cordes 1 min ago 0

As consumer beef prices continue to shoot up and the nation's producers get an ever-shrinking share of those dollars, Nebraska U.S. Sen. Deb Fischer said she sees rising bipartisan support for her bill seeking to bring more competition to the nation's cattle markets.

The Senate's agriculture committee is set to hold a **hearing in Washington Tuesday** on a Fischer bill that would require beef packers to buy more of their cattle in open, competitive markets.

Fischer and many in the cattle industry believe a lack of competition due to heavy concentration in the meatpacking industry is giving packers too much market power, to the detriment of both consumers and farmers and ranchers. Some 85% of the more than 30 million head of cattle raised for slaughter each year in the United States are processed by just four leading meatpackers.

"I'm really pleased to see the forward momentum for our cattle market reform bill," Fischer said of the measure, which now has a total of 19 co-sponsors in the Senate, including nine Republicans and 10 Democrats.

Cattle producers' shrinking share of the beef dollar compared to packers was the subject of a **series of stories in The World-Herald** last year. An updated World-Herald analysis of year-end figures for 2021 from the U.S. Department of Agriculture shows the trend has not abated.

Producers in 2021 did see a 10% increase in the price they received for their cattle, ending three straight years of declining prices. But producers' share of the beef dollar continued to fall, as retail beef prices went up 11% and the packers' share went up another 31%.

Over the last four years, the price of beef is up $1.34 per pound. But farmers have received less than 2 cents of that increase, with the packers netting $1 of it. The rest went to retailers.

Packers argue there is nothing inherently wrong with cattle markets, attributing the price changes to natural supply and demand forces and market disruptions like the pandemic.

But Fischer said the persistence of the trends makes that hard to accept.

"You can't blame the pandemic for everything," she said. "It's a result of 85% of meat going to four packers. It's the result of continued consolidation."

Today, meatpackers acquire the majority of their cattle by contracting with individual producers. Fischer's **Cattle Market Transparency Ac**t would require more public disclosure of what packers are paying for their cattle and also require the packers to buy more cattle through competitive cash markets.

Sen. Chuck Grassley of Iowa had a competing proposal with the same aim but has now joined forces with Fischer, a fellow Republican. Democrats Jon Tester of Montana and Ron Wyden of Oregon are the other main sponsors of the bill.

Fischer said she and other co-sponsors recently met with U.S. Agriculture Secretary Tom Vilsack. He and President Joe Biden have been supportive of the concept of the bill, and she's hopeful they will formally endorse it.

While the Senate has previously held hearings on conditions in the nation's cattle markets, this will be the first on Fischer's bill, which she believes has the votes to emerge from the agriculture committee.

Fischer said she has made accommodations to the packing industry in the latest version of the bill. That includes expanding the types of cash sales that would count as competitive, including online sales.

But packers continue to fight the measure. The North American Meat Institute has pointed to the recent increase in cattle prices, which they say have reached a seven-year high. And they say Fischer's bill would limit the flexibility of cattlemen who want to sell their cattle by contract.

"Supply and demand has already driven the cattle markets back into balance without the radical government interference and convoluted mandates called for in the latest draft of the Grassley-Fischer bill," said NAMI President and CEO Julie Anna Potts. "Make no mistake, the bill still contains government mandates directing how producers market their cattle."

The State of Beef: Nebraska's most important ag sector faces uncertain future

Henry J. Cordes , Paul Hammel Sep 26, 2021 Updated Mar 12, 2022 0

OUTSIDE OF CODY, NEB. — Wade Andrews' 21-year-old pickup bucked wildly as he navigated the rutted Cherry County Sandhills where his family has raised cattle since 1888.

Down below, standing in the bend of a shallow river, a herd of 200 Black Angus cows with their 4-month-old calves watched warily for who or what was invading their normally peaceful pasture.

This is the middle of a county known as "God's Own Cow Country," an oasis of grass-covered hills and clear, shallow lakes ideal for raising cattle, which outnumber people here 50 to 1.

The seasons here aren't measured in spring, summer and fall, but calving, branding, weaning and then, come November, sale day at the auction barn in Valentine.

But ranchers like Andrews worry that their way of life is slipping away amid low cattle prices and ever-rising expenses.

Andrews said he hasn't made a profit in five years, despite record-high prices for steaks and hamburger at the grocery store.

Prices for his calves are nearly half of what they were six to seven years ago. With cattle prices like that, he's had to dip into rainy day funds to cover his rising expenses for hay, feed supplements, equipment, health insurance and those burdensome Nebraska property tax bills.

Yet the way the system is working now, the meatpacking firms are taking those same cattle and earning record profits.

"They're taking advantage of people," Andrews, 56, said of the packers. "That's just wrong.

Without question, something has changed dramatically within the economics of the nation's beef industry, which is the sturdy backbone of Nebraska's agriculture economy. At a time of record consumer prices for beef, producers have endured years of declining prices for their cattle.
Never in the last half century has the gap been greater between what producers like Andrews are paid for their cattle and the price of beef in grocery stores, a World-Herald analysis shows.

And never have the nation's beef packers snared a bigger share of that consumer beef dollar. In fact, in the past seven years, the packers' share has increased more than 300%.

Many ranchers blame current market conditions on the extreme consolidation in the nation's meatpacking industry. Today, some 85% of the fattened cattle that are turned into steaks and other choice cuts of meat in the United States are slaughtered by just four giant international processors.

Producers say industry consolidation has given packers the market power to manipulate the flow of cattle into the system, drive down cattle prices, fatten their profits and push up prices for consumers.
"The packing industry and its packers are no different than oil and OPEC," said Van Neidig of Battle Creek, who sells livestock equipment and buys and sells premium bulls. "What surprised me is that the consumer isn't freaking out at the prices they're paying."

Packing industry officials, many beef industry economists and even some producers counter that there's nothing fundamentally wrong with the economics of the beef industry.

They trace the current shake-up in cattle and beef markets to normal economic cycles, including higher inventories of cattle, combined with several hugely disruptive "black swan" events, including the COVID-19 pandemic.
"The present spread between live cattle and beef prices has everything to do with the law of supply and demand," Shane Miller, a western Iowa native who is group president of fresh meats for Tyson Foods, testified recently before a congressional committee.

That hearing at which Miller testified is one of three Congress has recently held on beef markets. Some producers and policymakers are calling for major changes to the system, from overhauling the way cattle are sold to breaking up the "Big Four" packers.

U.S. Agriculture Secretary Tom Vilsack said it's been frustrating for producers in recent years to frequently sell their cattle at a loss, only to then see the packers process those same animals for sizable profits.
"The profit ought to go both ways," the former Iowa governor said.

It's also no secret the Justice Department's antitrust division has been scrutinizing the big meatpackers over the past year.

Considering two of the Big Four beef packers have recently paid hundreds of millions in fines and civil penalties after allegedly conspiring to fix prices in the chicken industry, many producers suspect such collusive behavior is happening in beef, too, which packers deny.

"These are widespread practices," charged John Hansen of the Nebraska Farmers Union, whose parent organization is part of a federal civil suit alleging price-fixing in beef. "They do it because they make money doing it, and because they can."

Amid the debate, arguably nowhere are the stakes greater than in Nebraska. Nebraska has three times as many cattle as people, with nearly half the state's land area dedicated to raising and feeding livestock. Only Texas, with three times the total land area, has more cattle than Nebraska.

Nebraska's packing plants process more beef than any other state. And almost half of all Nebraska corn is fed to livestock, making beef the foundation of agriculture in the Cornhusker State. The economic impacts of the state's $10 billion-plus cattle industry ripple into cities like Omaha, too.

"The reality of Omaha would be very different without cattle in the state," said Glynn Tonsor, a beef industry economist at Kansas State University.
But more than that, raising cattle is a way of life in a place whose license plates once declared it "The Beef State." Some 20,000 breeding and feeding operations, mostly family-owned, span the landscape from the Missouri River to the Sandhills.

That figure, though, is down by 10,000 — roughly a third — over the last three decades, including thousands of mostly small operators who have gotten out just since 2012.

Along with the current market crunch, Nebraska's beef industry faces a number of additional long-term threats.

They include the rise of plant-based alternatives made to look, smell and taste like beef. Some believe that even the animal-based meat of the future won't be raised in Nebraska pastures but instead grown in a lab.

In addition, the threat of global climate change is not only altering a Nebraska ecosystem that's perfect for grazing cattle but also is bringing cattle and their contribution to rising greenhouse gas levels under environmental scrutiny.

In an occasional series, The World-Herald will examine the current state of Nebraska's No. 1 agricultural sector and how it can navigate the decades to come. It begins with today's look at the sizzling controversy over cattle markets and packer consolidation.

The clank of heavy steel gates and the rhythmic chant of an auctioneer rang through the tiny arena as 23 bred heifers shuffled nervously in a show ring.

The Black Angus cows at this cattle auction in Nebraska's Sandhills came from a ranch in South Dakota, where an epic drought is withering pastures, leaving producers short of feed for their animals.

"They're a good set of heifers," said Greg Arendt, manager of the Valentine Livestock Market, grabbing a microphone and interrupting the auctioneer's patter.

Two dozen men sat in plastic theater seats scattered around the show ring, a couple making the slight hand gestures or head nods that denote a bid.

This is a sale day at the Valentine market, when months of work raising these young cattle, along with years of work on breeding and genetics to improve a herd, finally pays off for a rancher.

It can be an exciting day if they hit a market top. But more often than not in recent years, sale days have been a bitter disappointment around Nebraska, with prices sometimes failing to even cover expenses.

"Sold for fourteen-thirty five," said auctioneer Dillon Lambley, indicating a bid of $1,435 per head for the heifers, which weighed an average of 940 pounds. A "just OK" price, according to Arendt.

The market in Valentine is one of many moving parts within the nation's complex, heavily segmented beef industry.

Cow-calf operators, who number roughly 18,000 in Nebraska, breed and raise cattle and ultimately bring their calves and yearlings to such markets to sell them. The bidders are most frequently operators of feedlots, those large, and sometimes fragrant, seas of metal and wooden pens that often hold thousands of cattle.

Feedlot operators, who number about 2,500 in Nebraska, will "finish" the cattle, fattening them up for market.

The feeders will then sell the animals to packinghouses, where they're turned into the T-bones, filets, roasts and hamburger we buy from the meat case.

While a number of feedlot operators were on hand to competitively bid for the young cattle at the market in Valentine, the price feedlots are ultimately willing to pay is largely determined by the price major meatpackers will pay them later for the fattened cattle once they are ready for slaughter.

And that, many livestock producers say, is where the system appears to be broken: There are simply too few packers to bid and compete for fat cattle.

Feedlot operators say they are sometimes lucky if one or two packers bid for their animals, which they trace to the way the packing industry has heavily consolidated over the past four decades.

USDA figures show that in 1980, the nation's four largest processors slaughtered only about 36% of all fed cattle, less than half of today's 85% figure.

How did the industry become so concentrated?

Industry experts say many of the biggest packing firms in the 1980s moved to larger plants to control costs and drive economies of scale.
A USDA study shows that in 1977, only 16% of all fattened cattle were processed in what were considered large plants — those with annual capacities of a half million animals or more. By 1997, 80% of beef was processed in plants of that size. And that included 63% processed in megaplants with million-animal annual capacities.

How the retail beef dollar is split

As consumer beef prices have risen sharply in recent years, nearly all the financial benefits have accrued to packers and retailers. The packers' gross share is up more than four-fold since 2014, while farmers and ranchers have seen a declining share.

Each sector's monthly average gross share of the retail price of a pound of beef



Source: Compiled from USDA data

Note: 2021 figure through August

The drive for scale didn't just reduce costs for the big packers; it drove many smaller operators out of business.

Federal antitrust regulators beginning in the 1980s also took a laissez-faire view when it came to reviewing and approving mergers, leading to further consolidation.

Today the beef industry is dominated by the Big Four packers: Tyson Foods, JBS Foods, Cargill and National Beef Packing. JBS, based in Brazil, is the world's largest meat processing company, and National also is majority owned by a Brazilian company.

That consolidation also has brought significant changes over the last two decades in how cattle go to market.

Historically, packers bid for most of their fat cattle on livestock markets. But today less than a quarter of cattle are bought and sold in such open marketplaces.

Packers now secure the vast majority of the cattle through alternative marketing agreements, or AMAs, in which the packers contract with producers to have cattle delivered on a certain day at a preset price.
Packers prefer such agreements because today's huge plants require large volumes of cattle, delivered on time, to operate efficiently. The agreements also offer some advantages to feeders, who lock in markets for their cattle and hedge risk. Packers say the agreements actually originated with feeders.

AMAs have also been credited by some with helping to improve the quality of beef, as incentives are often built into the agreements for cattle that grade higher. Some say such standards may be one reason per-capita U.S. beef consumption has actually been on the rise in recent years after decades of decline in the face of Americans' growing appetite for chicken.

“Make no mistake, (AMAs) improved incentives for cattle producers to invest in beef quality, and we have seen the fruits of that,” Kansas State's Tonsor said.

But some cattlemen’s groups say such agreements provide preferential treatment to some select, large feedlot operators; increase packers’ control of the cattle supply; and stifle competitive bidding.

The agreements also aren’t publicly disclosed, reducing the ability of producers to know what a fair price is. The small number of cattle sold on open markets tend to set the market price for all cattle, including those sold through marketing agreements.

Some producers say the lack of competitive bidders for their cattle can often leave them as “price takers” — forced to accept whatever price the packer is willing to pay.

“There’s nowhere else to go,” said Tom Feller, whose family has been feeding livestock around Wisner for more than a century. "We have no leverage.”

In the old days, he said, it wasn’t hard to find a packing plant ready to bid on your critters once they were ready for market. But now, the message from the packinghouse is often that they’re at capacity, either due to too many cattle or too few workers.

Feller said that his 15,000-capacity, family-run feedlot — a medium-sized operation — hasn’t made money in five years due to low cattle prices and ever-rising costs of feed.

“We have record demand and record prices (for beef), but it’s not coming down the ladder,” he said.

Data on the growing gap between beef prices and what producers are paid for their cattle make it plain to see why producers like Feller are so upset.

The USDA publishes data for livestock industry “spreads,” the gross share of the final consumer beef price that goes to the producer, packing and retail sectors.

The figures show that since 2011, the average price consumers are paying for a pound of beef is up more than $2 to nearly $7 — with packers and retailers capturing nearly all of that increase.

The packers' share of the total beef dollar has rocketed up from 35 cents per pound in 2011 to $1.58 so far this year. That's an increase of more than 350%. The retailers' per-pound share is up, too, from $2.05 to $2.79.

Meanwhile, the producer share of $2.58 per pound is up only slightly from $2.41 a decade ago, despite the much higher beef prices. The producer share has also fallen more than 20% from the peak level of $3.30 a pound seen in 2014.

Looking on a percentage basis, the shares of the beef dollar going to packers in the past three years have been the three highest years on record, while the share going to producers represents three of the four lowest on record.

In figures back to the 1970s, there has never been a bigger, longer-lasting spread in the retail price of beef and what producers are being paid for their cattle.

For producers, recent falling prices have also been accompanied by higher costs, including much steeper prices for feed corn. According to Tonsor, cow-calf operators on net per cow lost money in four of five years from 2016 to 2020.

While many economists don't blame packers for the current market, they say conditions have no doubt benefited packers, who in some cases are seeing record profits. Tyson recently reported robust third-quarter earnings. The publicly traded company's stock price is up 25% in the past year.

“It’s definitely a good time to be running a slaughter facility,” Tonsor said.

Many producers see ample evidence that consolidation and control of cattle flow have given packers too much pricing power. They point to three recent events as particularly shining light on how much packer consolidation is hurting the industry: a 2019 fire that shut down a massive Tyson plant in Holcomb, Kansas; the COVID-19 outbreaks that disrupted numerous plants in 2020; and a ransomware attack in May against JBS.
In each case, the plant disruptions stopped or reduced the incoming flow of cattle. That left many producers with nowhere to sell their animals and drove down prices. At the same time, consumers were charged record amounts for beef, and packer profits soared.

David Wright, who ranches in northeast Nebraska's Holt County, said the incidents showed how packers now have a stranglehold on cattle supply and beef prices.

All they have to do is stop or slow down their production line and they suddenly create an oversupply of cattle, allowing them to pay producers less. At the same time, the reduced supply of beef at retail lets them charge consumers more.

“During the COVID virus, they figured out pretty quickly they could kill less cattle and make $1,000 a head,” said Wright, a past president of the Independent Cattlemen of Nebraska.

Hansen, the Nebraska Farmers Union president, said the lack of market players also leaves producers at the mercy of packer buying representatives, hoping they will come out to bid on their cattle. He said he’s even seen cases where packer reps retaliated against producers who turned down a bid they considered too low or who criticized the system.
“All they have to do is not show up,” Hansen said of packer buyers. “That sort of thing goes on all the time. They have all the leverage and control.”
Wright said something must be done to alleviate the competitive imbalance. If not, he said, thousands more operators could be forced out of business.

“They are going to shove that (cattle) price down and stick the meat price to you higher and higher, and the small towns are going to die,” he said. “We can all move to Omaha.”

Beef industry officials counter it’s simplistic to blame the recent beef margins on consolidation. They note that the industry today is little more concentrated than it was two decades ago, a period which covers years-long stretches where producers enjoyed strong margins and profits.

They also say what happened in cattle beef markets after the recent black swan events was simple supply and demand at work. Cattle prices fall when there's an oversupply, and beef prices will rise when there are shortages.

Packers representatives argue they compete intensely for both cattle and consumers, and say they can’t succeed if producers don’t.
"We rely on these farmers and producers and want them to be successful," Tyson's Miller said.

The North American Meat Institute, which represents the packing industry, said the disruptions brought on by COVID-19 in 2020 have continued into this year in the form of labor shortages, still limiting the ability for plants to operate at full capacity.

Firms have been raising wages to try to attract more workers, NAMI officials said. They also note the meatpacking industry is an important one in Nebraska. It employs more than 26,000 workers, including many immigrants, refugees and others willing to take on the difficult work.
NAMI also said the kink in the cattle supply chain is straightening itself out, as indicated by recent rising cattle prices and higher futures markets.

Historical figures on the size of the U.S. cattle herd and cattle prices indeed do show the two tend to rise and fall in relation to each other. But that doesn’t mean herd size explains the historical magnitude of the recent price changes for both cattlemen and consumers.

Nor does it prove that beef markets are fair, balanced and working properly for all — including the consumers who enjoy a good steak.
The level of concern among beef producers was evidenced earlier this year in an unprecedented meeting of all the major groups representing beef producers, among them the American Farm Bureau Federation, National Cattlemen's Beef Association, National Farmers Union, R-CALF USA and the U.S. Cattlemen's Association.

The beef industry has historically been fragmented, with lots of disagreement and fighting among the groups, Tonsor said. "It is telling that they got together to play nice for the first time ever."

The Nebraska Cattlemen also is believed to be the first beef organization to call for a federal investigation of the packers, which it did in April 2020. Other national organizations joined in, and then-President Donald Trump also urged an investigation, which is believed to be ongoing.

Pete McClymont, executive vice president of the Nebraska Cattlemen, said it's frustrating to see packers making hundreds of dollars per head while "we're trying to exist."

"Packers and cowboys have been fighting ever since there's been packers and cowboys," McClymont said. "We've just had such a long, extended time when people aren't making money. So something has to give."

Meanwhile, producers like Andrews are trying to hang on.
On his vast Cherry County ranch, he has cut back, delayed buying new equipment and dug into savings. He's looking at cutting back his herd as much as 20%, citing dry conditions and higher expenses to feed cattle.
His neighbor's son recently left for a higher paying job in the city, and he worries whether his 16-year-old son will carry on the family tradition of raising a line of calves whose genetics have been developed over a century.

"I'll muddle through it," Andrews said, "but the next generation?

"Why would you encourage someone to go into this field when you work your butt off for minimum wages? It's not like we're doing nothin'. We're providing food."

QUESTIONS AND ANSWERS

APRIL 26, 2022

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Questions for the Record
Mr. Andy Green

Ranking Member John Boozman

1. **Does the administration support S. 4030 as introduced?**

   The Department is encouraged to see bipartisan legislation intended to improve price discovery in the cattle markets and facilitate actual negotiation of prices between livestock producers and packers. USDA stands ready to work with Congress on and to implement tools that could improve price transparency, including that provided through S. 4030.

2. **Does the administration support S. 3870 as introduced?**

   When appropriately resourced, the new position created by S. 3870 would be a focal point for accountability and could enhance enforcement effectiveness. We look forward to working with Congress on these important issues, and we hope that they will also look for ways to ensure farmers and ranchers are operating on a level playing field.

3. **Prior to joining the Department of Agriculture, you worked at the Center for American Progress. One of the pieces you authored in 2019 suggested the creation of a bureau—modeled after the Consumer Financial Protection Bureau—that you coined as the Independent Farmer Protection Bureau. In your writings, you stated this Bureau "*should be empowered to investigate and stop abuses of market power; protect farmers' contract rights under laws such as the Packers and Stockyards Act of 1921, and combat anti-competitive practices in seed and other input markets.*" Is the office established in S. 3870 essentially the office you envisioned in 2019 while at the Center for American Progress? If not, please describe similarities between the office that would be established under S. 3870 and the Independent Farmer Protection Bureau described in your 2019 piece.**

   S. 3870 would create an office within the Department of Agriculture, which is different than the conceptual proposal for an independent agency put forward by the Center for American Progress in 2019.

4. **Under livestock mandatory reporting, packers are required to transmit daily to USDA the price and volume of livestock they purchase from farmers. They must also report the prices they receive for the meat sold to further processors and retailers. USDA estimates packers transmit over 40,000 data points each day through this program. This data details every bit of information about a packer's business operations—what they pay for their inputs and the price received for their**

product—and this information is made available daily for the general public, creating a unique system of accountability that few industries in America are subject to. Yet, the Administration feels it is necessary to build an office of investigators who exist solely to investigate this sector. Can you explain what you expect these investigators to uncover that USDA's General Counsel, Office of Inspector General (OIG), Department of Justice (DOJ), or other federal agency will investigate that this large amount of confidential business information hasn't already exposed?

Livestock Mandatory Reporting (LMR) Act data provides an important and valuable tool to enhance the transparency and competitiveness of markets. The Special Investigator office, if properly resourced, may bring together the legal and investigative strategy with particular expertise in the Packers and Stockyards Act, which the USDA administers, to more effectively pursue competition cases. It would also give the Department the ability to give needed attention to Packers and Stockyards that producers expect and deserve, and give more focus to a complicated issue.

5. **The office established in S. 3870 will have responsibility to consult with the Department of Homeland Security about national security and critical infrastructure. These responsibilities are currently performed by the Office of Homeland Security at USDA. Do you envision this existing office being absorbed by this new Office for the Special Investigator or how will their responsibilities differ?**

Regardless of S. 3870 as written, the USDA Office of Homeland Security would retain its role and functions. While details will need to be addressed through implementation, I expect the Special Investigator would only need to coordinate with the Department of Homeland Security in matters as they may affect competition.

6. **The Meat and Poultry investigator bill provides numerous authorities for this new office including subpoena authority, authority to liaise with the Department of Justice, authority to pursue civil actions against packers, etc. Currently, the Secretary, or offices within USDA, currently holds some of these authorities, while DOJ or Federal Trade Commission (FTC) are responsible for others. As we attempt to assess the justification for establishing this new office, why does it make sense to duplicate existing authorities? If USDA, DOJ or others already have authority to perform these functions, why are they not used presently?**

USDA presently coordinates across multiple offices and deploys relevant available authorities to effectuate its mandate. For example, in its administration of the Packers and Stockyards Act, USDA may, and regularly does, subpoena records and coordinates with DOJ. Indeed, just this year, USDA and DOJ launched a joint portal to receive complaints or tips about potential violations of the Packers and Stockyards Act and other antitrust laws.

USDA is focused on building new, more, fairer, and more resilient markets for our farmers, ranchers, and producers. As we work to strengthen the resiliency and security of

supply chains, vigorous enforcement of the P&S Act will be critically important. S. 3870, if enacted and properly resourced, would enhance our enforcement efforts, including providing the authority to bring certain cases and represent the Department in Federal courts, while strengthening critical partnerships with other Federal partners.

7. **What technical assistance, review, and/or response has DOJ or the FTC provided USDA on S. 3870—the Meat and Poultry Special Investigator Act?**

   The Department has not received input on S. 3870 from the Department of Justice or the Federal Trade Commission.

   a. **Will you provide this information to the Committee as part of the official hearing record?**

      The Department has not received input on S. 3870 from the Department of Justice or Federal Trade Commission.

   b. **If DOJ or the FTC has not provided such information, why not?**

      The Department has provided technical assistance on S. 3870 at the request of Congress. Should this bill be signed into law, the Department would consider any comments provided by the Department of Justice or the Federal Trade Commission during rulemaking.

8. **Does the Special Investigator position implicate any constitutional concerns under the Appointments Clause? Will another USDA official supervise the activities of Office of the Special Investigations for Competition Matters, including enforcement actions and civil lawsuits initiated by the Special Investigator?**

   I do not foresee the creation of the Special Investigator's office as implicating the Appointments Clause of the Constitution. The Special Investigator position will be appointed by the Secretary of Agriculture, who has authority under Art. II to make such an appointment. Additionally, because the Office of the Special Investigator will perform legal functions, I expect their work will be supervised by USDA's chief legal officer, the General Counsel, in close coordination with the Undersecretary of Marketing and Regulatory Programs regarding policy direction.

9. **The Administration believes concentration in the meat and poultry processing sectors has contributed to food price increases, and that the Administration is pushing for the establishment of the Special Investigator established in S. 3870 due to the elevated food prices consumers are facing. Had this office been established prior to the pandemic, do you believe meat and poultry prices wouldn't be inflated like they are currently? Can you provide data or an economic analysis that supports your perspective?**

It is not possible to characterize the impact a piece of legislation, in particular one with a principal focus on the enforcement of particular cases, could have had retroactively on situations like the increases in food prices. I do know that a rigid and consolidated food supply chain is closely tied to the ability of major processing companies to dictate the price of fresh meat and poultry. I also know that the Packers & Stockyards offices have suffered a 40 percent decline in staffing between 2010 and today. Without sufficient resources to effectively tackle complex cases, insufficient competition enforcement may be expected to persist. Promoting competition in the industry could result in more market fairness, and a special investigator would be charged with ensuring that the market remains fair and competitive. The Administration is encouraged to see bipartisan, bicameral efforts in Congress to ensure a level playing field for farmers and ranchers.

10. In January, USDA and DOJ announced a joint tip-line for producers to lodge reports of anticompetitive behavior they've been subject to. Can you relay how many complaints have been lodged by producers through this new mechanism, and describe the follow up actions pursued by USDA in each of those instances?

As part of the Administration's fair and competitive markets initiative, on February 3, 2022, USDA and DOJ launched a joint web portal, farmerfairness.gov, for stakeholders to submit tips/complaints on potential violations of the Packers and Stockyards Act and other anti-trust laws. As of May 11, 2022, the Department has received 66 submissions through the joint USDA-DOJ livestock and poultry complaint portal. To protect the integrity of the investigative process, I am not able to discuss cases under review.

11. This past summer USDA announced a new set of criteria producers can utilize in helping them to better understand whether an action they've been subject to is a violation of the Packers and Stockyards Act (PSA). Can you describe how many PSA complaints or possible violations have been reported since the new criteria was released? Can you describe the follow up actions pursued by USDA?

In August 2021, the U.S. Department of Agriculture (USDA) issued new policy guidance regarding how it will enforce Packers and Stockyards (P&S) Act. The enforcement policy regarding Undue and Unreasonable Preferences under the P&S Act, in the form of "frequently asked questions (FAQs)," commits USDA to defending the competitive interests of farmers to the maximum extent possible. The FAQs clarifies that USDA may investigate a broader range of harmful and anticompetitive activity by making clear that the criteria in the December 2020 rule are not exhaustive and will not prevent USDA from pursuing actions to enforce the P&S Act, even while rule changes to address those concerns are underway.

Over the past year, USDA has received numerous complaints alleging unfair and undue trade practices in violation of the P&S Act, including the cases noted under the USDA-DOJ Joint Complaint Portal. To protect the integrity of the investigative process, I am not able to discuss cases under review.

In June 2021, USDA announced plans to propose rules to "strengthen enforcement" of the PSA. Can you tell me the status and timing for proposal of those rules?

In 2021, the Office of Management and Budget (OMB) published in the Unified Agenda of Regulatory and Deregulatory Actions and USDA announced it will begin work on three proposed rules to support the enforcement of the P&S Act. The three proposed rules are: (1) Poultry Grower Ranking Systems (AMS-FTPP-21-0044); (2) Unfair Practices in Violation of the Packers and Stockyards Act (AMS-FTPP-21-0045); and (3) Clarification of Scope of the Packers and Stockyards Act (AMS-FTPP-21-0046).

We expect a rule on poultry growing ranking systems to be the first published.

12. When USDA announced its intention to promulgate these PSA rules, it sounded very much like rules that were proposed previously, and actually struck down in more than one appellate court. Can you describe what the new rules will encompass and how – or if – they will be different from the previous rules?

Courts have not addressed the substance of the proposed and final rules that were issued in 2016 and withdrawn in 2017. Those rules generated significant industry interest, were highly debated, and received widely diverse comments. Commenters represented a wide range of interested parties, including livestock producers and poultry growers, meat and poultry processing companies, and various advocacy groups and trade organizations. USDA has considered those and other comments in our development of new approaches to fair and competitive markets under the Packers and Stockyards Act.

The new rules USDA intends to publish will be inspired by the rule proposals previously put forth but are expected to differ from them in certain important ways. Most notably, the rules will generally be specific, as opposed to setting criteria, which will enhance their enforceability and provide greater certainty to all market participants.

The Department welcomes the opportunity to engage with all interested parties when the rules are published for comment.

13. The Administration has alleged food price inflation is caused in part by packing industry concentration. In meat packing, concentration levels have remained relatively constant, or have even decreased in some sectors, during the last decade. Can you share your analysis that supports why industry concentration that has remained steady for many years did not lead to inflation until 2021?

COVID-19 shutdowns and other supply chain constraints played an important role in triggering the change in prices at the beginning of the pandemic. In the context of the pandemic, concentration of production played a role in aggravating those factors, as the loss of larger more concentrated facilities played an outsized role in constraining the rest of the marketplace. With fewer options for producers, in particular in local markets where

their products are sold, the impacts of supply chain constraints were particularly sharp. Furthermore, heightened corporate profitability—including increasing profit margins—has also raised concerns regarding whether those companies were utilizing their market power to raise prices beyond recouping increased costs. Heightened concentration and potentially reduced competition may also inhibit the ability for markets to adjust and compete prices back down.

14. **S. 4030 would require a minimum percentage of fed cattle purchased by packers to originate from the cash market, varying regionally dependent on where the processing plants are located. Court precedent on mandating behaviors of individuals or businesses has evolved in our country's history. For many years, the legal interpretation set by *Wickard v. Filburn*, 317 U.S. 111 (1942) set the standard for allowing some degree of mandates. In more recent years, the precedent set by the Supreme Court of the United States in their ruling in *National Federation of Independent Business vs. Sebelius*, 567 U.S. 519 (2012) set a new standard, disallowing the federal government from mandating activities on individuals. Can USDA please provide any legal analysis that pertain to the constitutionality of the mandate required in S. 4030? Can you provide the opinion of USDA's Office of General Counsel on whether potential constitutionality considerations that arise from this requirement?**

S. 4030 does not mandate that any packer purchase any cattle. To the extent they do purchase cattle, S. 4030 would contemplate setting out several approved pricing mechanisms that would serve as a regulation of pricing for a certain minimum percentage of the cattle that they purchase.

Senator Reverend Raphael Warnock

1. **Mr. Green, thank you for your testimony. I am increasingly concerned about market concentration within the agriculture industry, including the effects this concentration has on farmers and consumers across Georgia.**

   I remain focused on supporting all farmers in Georgia, with an emphasis on addressing the needs of small-scale and historically underserved farmers. You noted in your testimony, "USDA is working to fundamentally change and improve America's food system to create more, better and fairer markets for producers and consumers alike."

   a. **How specifically will USDA ensure that any work to address market concentration and supply chain resiliency is equitable and actively incorporates the concerns of small-scale and historically underserved farmers?**

      Market consolidation and supply chain rigidity is most striking in its impact on minority and underserved communities—these are the communities that often have the least access to affordable and healthy food and whose producers have not

enjoyed robust access to markets or financial supports. The Department is committed to addressing equity in the food system broadly and is also working to address the direct impact that consolidation has on minority producers.

For USDA, supporting opportunity and equity for smaller scale and historically underserved producers are priorities—indeed, values—that we incorporate into everything we do.

More broadly, USDA is actively considering the concerns of such producers in this work. For example, the Value-Added Producer Grant Programs that were made available to help farmers and ranchers diversify their operations in response to COVID-19 were offered a lower match, bringing producers into the program who otherwise would not have had the opportunity to receive such a grant. Additionally, Rural Development has implemented a new system of priority points to guide investments from existing programs to communities that have previously been underserved by USDA, including the Rural Energy for America Program which provides grants and loans to help farmers cut energy costs through renewable energy and energy efficiency improvements.

We also believe that smaller scale and historically underserved producers will benefit from the enhancements to fair and competitive markets being contemplated under the Packers and Stockyards Act, as they may the most vulnerable to troubling practices in the marketplace.

b. **How would small-scale and historically underserved farmers benefit from strengthened local and regional agricultural supply chains, including expanded local processing capacity?**

Additional processing capacity could provide increased marketing options for local and regional livestock producers and decreased packer or processor concentration at local and regional levels. More and better marketing options may particularly benefit smaller scale and historically underserved farmers who have increasingly felt shut out by the relationships between larger packers and larger producers, or who feel that the cash markets are not offering them a fair price. These changes could also result in increased consumer purchase options, which may in particular benefit smaller-scale and historically underserved farmers who can more easily tap into those local and regional markets. Strong local and regional markets may be less susceptible to broader supply-chain disruptions, which are also beneficial to smaller scale and historically underserved farmers who may lack certain aspects of financial stability that are critical to weathering larger market storms.

c. **What additional resources or authorities are needed by USDA to ensure your work on this issue is fully addressing the needs of small-scale and historically underserved farmers?**

More resources are needed for Packers and Stockyards. PSD's funding has been flat since 2010 at about $23 million per year. Adjusted for inflation, though, the amount decreased to $19.39 million in 2021, which equates to an 18 percent decrease. As a result, PSD has seen a 40 percent staffing decline since 2010, from 179 to 107. Staff shortages have encumbered the team's ability to perform and pursue complex and anti-competitive investigations. Additional resources would permit PSD to engage in additional outreach and educational support to underserved farmers and ranchers.

President Biden's Fiscal Year 2023 budget includes a $10MM increase for USDA's Packers and Stockyards Division (PSD). The increased funding will allow PSD to enhance its competition investigative activities on local and regional markets for livestock and meat. Additional funding will also allow PSD to fill critically needed positions (economists and legal specialists/attorneys) to monitor livestock prices, investigate anti-competitive behavior and packer/processor concentration at the local and regional levels, and develop the legally necessary and sufficient evidence for violations. These market monitoring functions are essential promoting the fairer and more competitive markets that smaller scale and historically underserved producers need.

Senator Roger Marshall, M.D.

1. **The Current Packers and Stockyards division has the authority and the charge of investigating competition matters, why do you believe establishing an entirely new office within USDA is necessary?**

The Packers and Stockyards Division (PSD) is charged with investigating violations of the Packers and Stockyards Act, including competition matters. This new office would expand and enhance USDA's enforcement efforts, provide independent litigation authority, i.e., authority to bring cases and represent the Department without DOJ, while strengthening critical partnerships with other Federal partners. It would also give the Department the ability to give needed attention to Packers and Stockyards that producers expect and deserve, and give more focus to a complicated issue.

More resources are needed for Packers and Stockyards. PSD's funding has been flat since 2010 at about $23 million per year. Adjusted for inflation, though, the amount decreased to $19.39 million in 2021, which equates to an 18 percent decrease. As a result, PSD has seen a 40 percent staffing decline since 2010, from 179 to 107. Staff

shortages have encumbered the team's ability to perform and pursue complex and anti-competitive investigations.

2. Relative to competition issues received by USDA, how many submissions did USDA deem substantive, and of those, how many were actually investigated?

Over the past several years, USDA's Packers and Stockyards Division (PSD) has received over 200 complaints from producers and stakeholders regarding potential violations of the P&S Act. The vast majority of the complaints pertained to two significant events affecting the livestock industry, the 2019 Tyson beef plant fire and Covid-19. On July 22, 2020, USDA's Agricultural Marketing Service (AMS) released its *Boxed Beef and Fed Cattle Price Spread Report* regarding the impacts of these two events.

3. When does the DOJ get involved in Packers and Stockyards Act Investigations?

DOJ would be involved when a Packers and Stockyards Act investigation identifies a potentially criminal violation. DOJ is also involved in civil poultry investigations and litigation. USDA and DOJ have a framework established to review complaints and tips received through the joint USDA-DOJ farmer fairness portal to ensure coordination and prevent duplication of effort.

a. Would it be more relevant to have a specialist in the DOJ rather than duplicating efforts in USDA?

With regards to livestock and poultry, USDA has authority, expertise, and accountability relating to the Packers and Stockyards Act, as well as certain other relevant laws such as the Agricultural Fair Practices Act and the Federal Trade Commission Act.

4. In your testimony you mentioned "Product of the USA" label, I've suggested eliminating the label and creating three new voluntary labels – Processed in the USA, Raised and Processed in the USA, Born Raised and Processed in the USA.

a. Do you think allowing smaller processors and producers to take advantage of more specific voluntary labels would help get them more premiums from consumers and ultimately become more competitive?

USDA appreciates you raising this suggestion. The comprehensive review is currently underway and suggestions like this one will be used to inform rulemaking planned to clarify the meaning of the Product of USA label. USDA will keep Congress updated as the review and rulemaking processes progress.

5. **It's important to note the Australians and Brazilians shipping beef here have essentially the same inspection standards as our state inspected facilities so why would we let in beef from other countries but not let my local state inspected butcher send meat directly to a consumer.**

   a. **Would allowing <u>state inspected meat</u> to cross state lines increase competition?**

   Under the Cooperative Interstate Shipment (CIS) program, authorized by the 2008 Farm Bill, state-inspected plants can operate as federally inspected facilities and thereby ship their products in interstate commerce as long as they satisfy state requirements that provide the same level of food safety protections as the federal inspection.

   Currently, 10 states participate in the CIS program, an increase of two under this Administration, and we are working with others interested in qualifying for the program.

   Allowing any state inspected products to cross state lines outside of CIS would undermine our statutory food safety and inspection requirements and could have significant impact on trade opportunities for US farmers, ranchers, and meat and poultry processors. It would also limit our ability to enforce food safety requirements and conduct recalls which could reduce confidence in the U.S. food safety system.

<u>Senator John Thune</u>

1. **In your testimony you mentioned that USDA spent a significant amount of time working to provide technical assistance for the Cattle Price Discovery and Transparency Act.**

   Has USDA endorsed this bill?

   The Department is encouraged to see bipartisan legislation intended to improve price discovery in the cattle markets and facilitate actual negotiation of prices between livestock producers and packers. USDA stands ready to work with Congress on and to implement tools that could improve price transparency, including that provided through S. 4030.

   What were USDA's key considerations when analyzing the bill?

   USDA considered competition, price discovery, bargaining power and leverage for producers, market efficiency and costs for packers, consumer benefits or costs, and more.

Do you have an economic justification or analysis for this bill developed by USDA that you could share with the committee?

USDA staff and our Office of the Chief Economist are working collaboratively across the department to analyze economic impacts of potential reforms to the cattle market. Additionally, if passed into law, an economic analysis and justification will be developed to guide rulemaking.

2. **The recent omnibus spending bill authorized a pilot program requiring a cattle contract library that seeks to improve transparency of contracts agreed to between packers and producers.**

   Can you provide an update on the implementation of this important pilot program?

   In April, AMS hosted a listening session as an opportunity for cattle and beef industry stakeholders to provide feedback on the development of a cattle contracts library pilot program. AMS also accepted written comments for up to a week following the session. The feedback provided in the session and in the comments submitted is being used to standup a working model of a cattle contracts library pilot expected to be completed by mid-May. Once a working library pilot is completed, AMS will begin working with industry stakeholders to collect live data to populate it.

   When can we expect USDA to begin making cattle contracts publicly available?

   Currently, AMS expects to have the pilot cattle contracts library accessible to the public no later than January 1, 2023, with a possible start date in late Fall 2022.

3. **Cattle producers work hard each day to produce high quality beef. Americans recognize this, and they want to know where their food is coming from.**

   The current beef labeling system in this country allows imported beef that is neither born nor raised in the United States, but simply finished here, to be labeled as a product of the USA. This process is unfair to cattle producers and misleading for consumers.

   I am encouraged that USDA is reviewing labels like product of the USA. When will USDA conclude its review, and does the department plan to take further action?

   What else can USDA do to ensure accurate labeling of meat products?

   In July 2021, USDA Secretary Vilsack issued a statement noting the Department's commitment to ensuring that the "Product of USA" label for meat products reflects a plain understanding of what the term means to U.S. consumers. The Food Safety and Inspection Service (FSIS) remains committed to increasing transparency about where the foods that Americans consume come from and protecting consumers from false or

misleading labels on meat and poultry products. FSIS understands the current "Product of USA" label may be confusing to consumers about the origin of FSIS regulated products.

On April 4, 2022, the public comment period closed on FSIS' announcement of its intention to conduct a survey to gauge consumer awareness, understanding, and value of current "Product of USA" labeling claims on meat (beef and pork) products. FSIS has a contract in place for the consumer survey. The results from the survey will be used to inform rulemaking to clarify the meaning of the voluntary label. USDA will issue a proposed rule in 2022.

Senator Deb Fischer

1) **In June of 2021, USDA AMS published a report, "Highlights of the Evaluation of Formula Based Cattle Purchases". AMS analyzed formula net price data for slaughter cattle purchases reported between January 4, 2021 and May 31, 2021 to evaluation the proportion of these formula purchases with no premium or discount applied.**

   a. **Can you discuss high-level findings from this evaluation?**

      AMS identified the key highlights of the evaluation in the published report as,
      - Despite some variations among the five regions, a solid majority of formula purchases in all areas do have at least one premium or discount applied.
      - The northern regions of Nebraska and Iowa/Minnesota exhibited the highest proportion of transactions with no premium or discount applied.
      - While the proportion of cattle in which no premium or discount was applied likely represents formula transactions limited strictly to price reference methodology, it's also possible that some of these cattle simply met baseline specifications in which no premium or discount thresholds were triggered. A complete determination cannot be made under the current LMR reporting requirements.

   b. **What are possible explanations for formula agreements that were found to have no premium or discounts applied?**

      The most likely scenarios where a formula agreement did not have premiums or discounts applied are 1) there is minimal variation amongst the cattle in the lot, 2) the seller/buyer cannot agree on price during negotiation and resolve by agreeing to use a formula using a published market quote to set the price, or 3) the buyer/seller mutually agreed to utilize this type of formula agreement from the onset.

   c. **In explaining regional differences in the proportion of formula marketing agreements with no premium or discount applied, could this suggest premiums may be paid to some suppliers for providing large unpriced**

inventory, rather than providing a premium for quality? Would that reduce the need for buyers to participate in the cash market?

Premiums and discounts typically address carcass characteristics such as quality, yield, and weight. While lot size (head) could potentially influence the price paid, it is not typically addressed through the use of a premium or discount. Price based specifically on lot size has not been encountered by AMS staff during report verification or audits throughout LMR. Buyer participation in the cash market is influenced by numerous factors, such as by demand for the buyer's output (beef products). As demand for the buyer's output rises, they may find it necessary to purchase smaller lots of cattle to meet their needs and, when demand declines, less so.

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Questions for the Record
Mr. Bruce Summers

Ranking Member John Boozman

1. **Does the administration support S. 4030 as introduced?**

   The Department is encouraged to see bipartisan legislation intended to improve price discovery in the cattle markets and facilitate actual negotiation of prices between livestock producers and packers. USDA stands ready to work with Congress on and to implement tools that could improve price transparency, including that provided through S. 4030.

2. **Does the administration support S. 3870 as introduced?**

   When appropriately resourced, the new position created by S. 3870 would be a focal point for accountability and could enhance enforcement effectiveness. We look forward to working with Congress on these important issues, and we hope that they will also look for ways to ensure farmers and ranchers are operating on a level playing field.

3. **Outside of Federal Milk Marketing Orders, which prevent dairy farmers from fully negotiating milk prices with fluid milk bottlers, are you aware of any other agricultural commodities that USDA restricts marketing options available to producers and where that action is pursued free of producer vote or referendum?**

   No, AMS does not have other programs that regulate commodity markets similar to Federal Milk Marketing Orders.

4. **LMR reports data based on the region where the cattle are marketed from, not how packers purchase cattle in the region. For example, the volume of cattle reported as a cash or negotiated grid transaction in Texas-Oklahoma-New Mexico reflects how the Texas-Oklahoma-New Mexico cattle were marketed, NOT the transaction methods by which packing plants in Texas-Oklahoma-New Mexico acquire cattle. Have you reviewed the data based on how plants are securing cattle, and if so, can you provide any insight on if there are differences in the data when viewed through these different perspectives?**

   AMS has not conducted a formal review of cattle purchases by plant.

5. **If adopted, S. 4030 would require a minimum percentage of fed cattle purchased by packers to originate from the cash market. Packers found in violation of this**

mandate could face weekly fines of $90,000 per violation. As the Administrator of the agency tasked with implementing this section should it become law, do you think the legislation could be improved by providing administrative flexibility for the Secretary to waive requirements of the mandate in periods of extreme uncertainty, such as during foreign animal disease outbreaks?

I believe it would be prudent to provide the Secretary with authority on the enforcement provisions. As the Department has seen with other events in the livestock industry, companies have – out of necessity – altered procurement practices to effectively manage animal welfare, meet biosecurity protocol, respond to labor or trucking availability, or deal with similar emergency situations.

6. **The USDA has invested substantial taxpayer funds in grants for small and medium sized packers and processors through the Meat and Poultry Processing Expansion Program. Can you provide an update on the schedule for Phase 1 and 2 of this Program? Has USDA conducted analysis on what impact that additional capacity will have on cattle markets?**

USDA is investing $1B in expanding meat and poultry processing capacity, including the Meat and Poultry Processing Expansion Program, or MPPEP. Under MPPEP, USDA offered up to $150 million in funding to projects that diversify and expand meat and poultry processing capacity. The program has no minimum award amount, and a maximum award amount of $25 million or 20% of the total project costs, whichever is less. The application period opened February 25, 2022, and closed May 11, 2022. Applications are being reviewed and ranked currently. We anticipate awards under MPPEP will be announced in Fall 2022.

In addition to MPPEP, USDA is facilitating expansion of meat and poultry processing through the Meat and Poultry Inspection Readiness Grant Program, or MPIRG. This program assists meat and poultry slaughter and processing facilities with costs to make improvements and plan other activities necessary to obtain a Federal Grant of Inspection or operate as a State-inspected facility under a Cooperative Interstate Shipment (CIS) program. Approximately $55.2 million was made available under an RFP published June 21, 2021. One hundred and sixty-seven grants were awarded in November 2021 for approximately $32.7 million. To make the remaining funds available, USDA announced a second RFA on March 25, 2022, with an application deadline of May 24, 2022. The maximum award amount is $200,000. There is no match requirement for FY 2022.

These capacity building initiatives respond to the needs identified through an RFI issued July 2021: "Investments and Opportunities for Meat and Poultry Processing Infrastructure." USDA has not conducted a formal analysis on what impact additional capacity will have on cattle markets.

To help ensure the success of these meat and poultry supply chain initiatives, USDA developed the Meat and Poultry Processing Capacity Technical Assistance Program (MPPTA). In March 2022, we announced the formation of a national network of support for meat and poultry grant applicants to navigate the application process and assist grant recipients throughout their projects. $10 million was utilized to establish cooperative agreements with six organizations to provide this critical support for MPPEP and MPIRG grant applicants, and to connect meat and poultry processing expansion projects more broadly with USDA programs and opportunities. An additional $15 million (for a total of up to $25 million) will be invested to support and expand this nationwide MPPTA network alongside the rollout of additional USDA meat and poultry supply chain initiatives.

Given the application period has recently closed and applications are under view and the fact that this effort is intended to support processing across a number of species, AMS has not done a specific analysis on impacts of this effort on cattle markets.

Senator John Thune

1. **The recent omnibus spending bill authorized a pilot program requiring a cattle contract library that seeks to improve transparency of contracts agreed to between packers and producers.**

   Can you provide an update on the implementation of this important pilot program?

   In April, AMS hosted a listening session as an opportunity for cattle and beef industry stakeholders to provide feedback on the development of a cattle contracts library pilot program. AMS also accepted written comments for up to a week following the session. The feedback provided in the session and in the comments submitted is being used to develop what a working model the library would look like. At that point, we will share the concept with stakeholders and work to collect live data to populate the pilot library.

   When can we expect USDA to begin making cattle contracts publicly available?

   Currently, AMS expects to have the pilot cattle contracts library accessible to the public no later than January 1, 2023 with a possible start date in late Fall 2022.

2. **Cattle producers work hard each day to produce high quality beef. Americans recognize this, and they want to know where their food is coming from.**

   The current beef labeling system in this country allows imported beef that is neither born nor raised in the United States, but simply finished here, to be labeled as a

product of the USA. This process is unfair to cattle producers and misleading for consumers.

I am encouraged that USDA is reviewing labels like product of the USA. When will USDA conclude its review, and does the department plan to take further action?

Answered jointly below.

What else can USDA do to ensure accurate labeling of meat products?

In July 2021, USDA Secretary Vilsack issued a statement noting the Department's commitment to ensuring that the "Product of USA" label for meat products reflects a plain understanding of what the term means to U.S. consumers. The Food Safety and Inspection Service (FSIS) remains committed to increasing transparency about where the foods that Americans consume come from and protecting consumers from false or misleading labels on meat and poultry products. FSIS understands the current "Product of USA" label may be confusing to consumers about the origin of FSIS regulated products.

On April 4, 2022, the public comment period closed on FSIS' announcement of its intention to conduct a survey to gauge consumer awareness, understanding, and value of current "Product of USA" labeling claims on meat (beef and pork) products. FSIS has a contract in place for the consumer survey. The results from the survey will be used to inform rulemaking to clarify the meaning of the voluntary label. USDA will issue a proposed rule in 2022.

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Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Response to Questions for the Record
Mr. William Ruffin

Senator Roger Marshall, M.D.

1. How do you market your cattle?

Presently, I have one specific commission cattle buyer (Order Buyer) who I contact to sell my Feeder Cattle. In years past, I would contact as many as six (6) Commission Buyers. In the last five (5) years, however, I have only had one (1) or two (2) respond to my offer to sell. Since we generally sell in the Texas, Oklahoma, New Mexico region, a lot of the Independent Feed Yards have gone out of business. It has become very difficult to get bids on Feeder Cattle. Their offer to me will be based on prices for the future when my Feeder Cattle will be slaughter ready. I do not sell directly to packers since my cattle are not ready for slaughter. Most of my cattle are sold on advanced basis contract, meaning the sales price is calculated on the CME Board prices for the month in which my cattle will be delivered, with a deduction for trucking, and slide weight for any animal heavier than the average of the board (750 pounds)

   a. Do you have a business relationship with the packer?

I do not sell directly to the packer and therefore, do not have a relationship with them. My cattle generally are sold from 750 pounds to 850 pounds and must be fed an additional 120- 190 days in the feed lot. However, the price I receive for feeders from feed lots is directly impacted by the price feed lots receive for live cattle from packers.

2. Do you retain any ownership of your cattle in a feed yard?

Not usually but have in years past.

3. Do you use any risk management tools to mitigate price risk?

Yes, I do forward contract Feeder Cattle for future delivery based upon the CME Board and what live cattle sell for through a commission seller. The vendee in my contract will usually hedge my prices, but I do not.

4. Have you ever entered into an alternative marketing arrangement (AMA)?

No, this is not available to me as a stocker/backgrounder; however, the prices that I receive for stockers and feeders are directly influenced by cash markets, since this is where feed lots determine what my price will be. Without price transparency in the cash market, I am pricing blindly when offers are made by feed yards that sell by formula or AMAs which are often hidden

behind confidentiality guidelines through the Mandatory Price Reporting program or labeled as "proprietary business information".

Senator Charles Grassley

1. Is there a lack of price discovery in the U.S. cattle market?

Absolutely, the prices paid to select feed yards through AMAs and formula cattle are not published anywhere and are not discoverable by the public or other market participants. Without this information, there easily could be a great margin between what I am paid for feeder calves versus what the feed yards receive through the AMAs. The AMA prices are guarded extensively, even between the yards that sell by AMAs. One yard will not know what the next yard is receiving through an AMA. The only way that I can determine if I am receiving a fair price is if there is a spot cash price market. I can see that price and determine where my cattle should be selling in relationship to the live cattle market.

2. Is there a lack of price transparency in the U.S. cattle market?

Again, absolutely. As I have stated before, formula pricing for cattle sold on grids and AMAs are very secretive among the feed yards who get these special prices. There is no transparency showing what these yards are receiving for the cattle they sell to packers. Most of the cattle sold by AMAs are priced on grid sales and formulas which further complicate price determination. This affects my price since there can be a great margin between what I receive for feeders and what they receive for live cattle.

Senator John Thune

1. From the United States Cattlemen's Association's perspective, what is the best way to improve the cattle market situation for producers?

Encourage cash prices for cattle that are both transparent and competitive, and NOT based on special deals made with select feed yards through AMAs and formula pricing. AMAs and formula pricing have cut out the small feed yards and created an integrated system of marketing cattle. This question actually gets to the "meat" of the whole cattle complex. If packers are allowed to enter into unlimited alternative market agreements with select feed yards, the markets will continue to get more concentrated and non-competitive until there is no longer a cash market. Studies completed on the Cattle Price Discovery and Transparency Act of 2022 have forecasted that some regions will reach this point by as soon as 2026. Producers who raise feeder calves will be at the mercy of the few select yards who packers have choosen as worthy enough of entering into AMAs with, and thus those feed yards,can pay whatever they want to for cattle. Cattle producers will not have a clue of the value of their cattle is, the same as it is today, in the poultry and hog industries, where all animals are contracted without any knowledge of what the live price of these animals should be.

Further, what do you anticipate will happen to the cattle market if the Cattle Price Discovery and Transparency Act is enacted?

In my opinion, the Cattle Price Discovery and Transparency Act is not strong enough to protect cattle producers entirely, but it is a start. Its success depends upon the enactment enforcement by the Secretary of Agriculture. The Act calls for covered packers to report to the Department of Agriculture information on live cattle purchased either on negotiated cash sales or formula pricing. At the present time, there is effectively no reporting on AMAs and formula pricing to provide producers with information as to what their cattle are worth. Under this Act, more information would be available through the establishment of a Cattle Contract Library to determine what packers are paying for live cattle. Section 7 of the Act specifically puts a burden on covered packers to contribute to "sufficient levels" of negotiated trade of fed cattle of all feeding regions to achieve competitive bidding and maximum transparency in all relevant markets and robust price discovery for the benefit of all marketing participants. How this will be achieved remains to be seen, but the bill will create more negotiated cash sales and cash markets in each region, especially in the region which I sell, which is the Texas, Oklahoma, and New Mexico region. This bill represents a bipartisan compromise among almost 20 Senators and it is a valid starting point and does obligate covered packers to increase their participation in the cash market.

Senator Deb Fischer

1. In your testimony, you discuss a recent analysis from Texas A&M's Agricultural and Food Policy Center that forecasted without legislation like the Cattle Price Discovery and Transparency Act, negotiated trade in the Texas/Oklahoma/New Mexico region is modeled to fall to zero percent by 2026.

    a. As a producer that markets your cattle in the Texas/Oklahoma/ New Mexico region, how would you be impacted if that region had near zero levels of negotiated trade?

If this Act is not passed, and the Texas, Oklahoma, and New Mexico region continues to sell live cattle through AMAs and formula pricing at their current rate, there will be no cash market. When this happens, the whole cattle complex becomes vertically integrated. This means that packers totally control the markets and products from feeder calves to finished calves. This gives the Big Four total control over prices in all parts of the supply chain, and at that point, U.S. cattle producers become contract growers for these multinational meatpacking corporations. If you understand how the poultry and pork industries operate today, you will understand the fate of the U.S. cattle industry should Congress choose NOT to take action and pass the Cattle Price Discovery and Transparency Act of 2022.

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Questions for the Record
Mr. Shawn Tiffany

Ranking Member John Boozman

1. I understand you and your brother purchased your cattle feeding business about 15 years ago. Subsequently you secured an additional feed yard and have begun working with individual farmers to custom feed their cattle. If a cash market mandate had been in place during that period, how would that have impacted your decision to enter the cattle feeding business?

Answer: We have always worked with farmers and ranchers as a custom feedlot. A mandate or lack thereof would in no way have influenced our decision to become cattle feeders. Partly because having the opportunity to participate in production agriculture was a lifelong dream for both of us, and no amount of risk would have dissuaded us from at least attempting to achieve that dream. Furthermore, we did not know enough about the nuances and intricacies of the beef market to even have an opinion on market regulation or Packers and Stockyards Act requirements. As brand-new feedlot owners we had very little understanding of AMAs or Livestock Mandatory Reporting, and how these things impacted the participants of the industry. We learned through participation in these markets. Most people in the beef supply chain outside of feedlots and ranchers that retain ownership do not understand how the markets work either. Because of this, some of America's farmers and ranchers are being driven by emotion and just want "something" to be done. I ask this body to carefully listen to the economists, such as Dr. Koontz, who have thoroughly researched and predicted the implications of a mandate, feedlot operators that are tasked with marketing their customers cattle in such a way as to yield the greatest return for that customer and focus on the science of the issue rather than the emotion.

2. At the beginning of the hearing last week data was shared that described the value enjoyed by producers associated with AMA use. This data suggested the total value of lost premiums that could come about under a cash market mandate to potentially amount to several hundred million dollars annually. Have you given consideration to where those premiums will go? Will they be redirected throughout the supply chain?

Answer: The data compiled on this bill is discouraging at best. The Texas A&M studies along with the economic impacts shared with the Committee by Dr. Koontz suggest significant losses for the beef industry. Unfortunately, these costs will be borne by the very people this bill is intended to benefit, the cattle producers themselves. Packers can pass any additional costs along, whether that is in higher prices to the consumer or in lower prices to the cattle producer. AMAs have allowed producers to get paid for the actual quality of the cattle they raise and market. They have forced communication and transparency between the packers and producers and the producer knows exactly how every animal grades at harvest. AMAs have allowed for price differentiation and forced the packer to pay a higher price for better cattle rather than paying the

same price for all cattle regardless of quality. By limiting the number of cattle that can be sold through AMAs, even more leverage is given to the packer and they will enjoy the luxury of buying superior cattle at the average weekly price. Furthermore, who gets to participate in the limited number of AMAs? Will it be the retained ownership ranchers that I feed for or will it be the larger corporate yards that, because of their size, have more leverage with the packers than I do?

3. How do you think packers may change their behavior if the meat packer investigator bill were to become law? What actions might you predict, or how could your business relationship with packers evolve?

Answer: The authority to enforce the Packers & Stockyards Act exists today. If there are packers that have been acting outside of those regulations, enforcing the laws that already exist is, and should have been, the proper solution. The idea of establishing another government entity suggests that USDA has not been doing what they have been tasked with to support the beef industry to begin with. Fund and staff USDA and enforce the laws that have been in place since 1921 to protect the beef producers of the USA. Creating another bureaucratic agency for taxpayers to fund creates duplicity and confusion as to which agency has jurisdiction.

4. Witnesses in Congressional hearings are frequently unable to share all of their thoughts or respond to statements made by other witnesses. Please share any additional thoughts or respond to any statements made by witnesses that you believe will help inform the committee members.

Answer: I would have loved to offer my services to both Mr. Ruffin and Mrs. Ziesch. Managing the fed cattle marketing of the cow/calf and stocker operations, for whom we feed, is my brother and I's most important responsibility. Through strong relationships with several major and regional packers we provide the conduit connecting farmers and ranchers with markets that make their operations profitable. We do that by utilizing all marketing options at our disposal. Those include negotiated cash trade, negotiated grids, and AMAs, many of which are grid formulas that are periodically renegotiated. The marketing avenues are dependent on a variety of factors including market conditions, cattle type, producer goals, and if the cattle are in a specialized program.

Mrs. Ziesch, in her response to Senator Hoeven stated, "one third of ours (calf crop) we go through a broker and do a forward contract." Continuing she said, "it's just easier to go through a broker, we pay him a commission to do so. Sometimes it's a 30-day window when we do delivery." She also mentioned they sell another third of their calf crop at four regional sale barns and retain a third for replacement heifers. This seems to me to be a diversified marketing strategy that spreads risk and guarantees income at a point in the future. Yet, the exact strategy she employs in her own operation is what she and this bill will remove from my customers and many other producers. Having diversified marketing and income streams is just good business and this bill will remove that from a large sector of the beef supply chain.

Mrs. Ziesch ended by saying in reference to the Cattle Price Discovery and Transparency Act of 2022, "The best you can do is give it a try and see if it works… it can't hurt." Actually, it can

hurt and, according to the broad consensus of agricultural economists, it will hurt. The American beef industry is one of the most complex marketing and supply chains in the world and it cannot be distilled down to simply eliminating markets that many cattlemen and cattlewomen have fought hard to have access to. I assure the committee that this legislation will hurt producers and, unfortunately, it will be the most progressive and forward-thinking operations with the best genetics in the United States that are hurt most.

Senator Charles Grassley

1. Is there a lack of price discovery in the U.S. cattle market?

Answer: According to agricultural economists, price discovery is the "process of buyers and sellers arriving at a transaction price for a given quality and quantity of a product at a given time and place."[1] Price discovery occurs every time a buyer and seller agree to a transaction price and the process can occur in many different ways. Each method discovers a transaction price, just in a different fashion, influenced by market structure, market behavior, and market information.

It seems from the Committee's discussion, your question might be more appropriately asked as, "Is there sufficient price discovery occurring in the negotiated cash fed cattle trade?" Based on recent research done by my fellow panelist, Dr. Koontz, the answer to that question is, yes, and the cattle industry has significantly increased the levels of negotiated trade over the last year and a half on a voluntary basis.

Economists also agree that many individuals misconstrue price determination, the interaction of the broad forces of supply and demand that determine market price, with price discovery.[2] Improvements to the price discovery process may not effect, and in some cases, could lead to lower price levels, depending on the prevailing supply and demand fundamentals.

Currently, many formula agreements use the regional LMR weekly reported negotiated cash price to arrive at a transaction price. Economists note that if negotiated cash transactions in the fed cattle market become too thin, the transaction price in the negotiated cash trade becomes a less reliable guide to price level determined by supply and demand. Economists, like Dr. Koontz, have stated the number of transactions needed to achieve a reliable price can be very small. These economists caution that government interference in the price discovery process through a minimum negotiated cash trade mandate will impose higher transaction costs on the industry and damage the price discovery process.

Market participants should be allowed to adjust market practices to find the most efficient and innovative way to discover price and settle formula arrangements. For instance, many formula

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[1] Clement E. Ward and Ted C. Schroeder, Price Determination versus Price Discovery (1998), available at https://riskmgt.uwagec.org/MarketRisk/PriceDeterminationsVersusPriceDisc.pdf.

[2] *See* Derrell S. Peel, et al., Fed Cattle Price Discovery Issues and Considerations (2020), available at https://extension.okstate.edu/fact-sheets/print-publications/e/fed-cattle-price-discovery-issues-and-considerations-e-1053.pdf; Clement E. Ward and Ted C. Schroeder, Price Determination versus Price Discovery (1998), available at https://riskmgt.uwagec.org/MarketRisk/PriceDeterminationsVersusPriceDisc.pdf.

contracts contain clauses to alternatively settle the transaction price if the regional negotiated cash trade becomes too thin. This could include settlement on a futures price with a basis adjustment or some other mechanism. With time, market participants could also develop new methods of formula price settlement like a settlement based on some variation of the boxed beef price. Other market adjustments include voluntary efforts, like the one I participated in that was coordinated by NCBA to increase negotiated cash trade. This program met its goal of increasing the amount of negotiated cash trades by cattle producers conducted and reported in a given region. The NCBA program did not require rigid metrics and allowed efficient allocation of trades among interested parties, unlike a government mandate.

For most cattle producers, the real issue the past two to three years has been disappointing price levels. A lack of price discovery didn't cause lower prices. Nor did four-firm packer concentration, which has ranged from 81 to 85 percent over the past 25 years. The primary reason for disappointing price levels has been a lack of leverage for cattle producers. This is due to a long-term decline in fed cattle harvest capacity that was exacerbated by the Tyson Finney County plant fire in August 2019, and significant pandemic-related harvest disruptions.

Oklahoma State Livestock Economist Derrell Peel pointed out in his weekly column that, most of the U.S. beef packing infrastructure was built in the 1980s. Cattle inventories in the decade of the 1980s averaged 108.3 million head, 15 percent greater than the 92.1 million head average of the past decade. The industry was characterized by excess capacity for many years as cattle inventories declined. Over many years, Peel says, capacity slowly exited the industry. In 2000 a ConAgra plant in Garden City, KS burned and was not rebuilt; Tyson closed a plant in Emporia, KS in 2008; and in 2013 Cargill closed a plant in Plainview, TX. The National plant in Brawley, CA closed in 2014 but reopened as One World Beef in 2017. (https://northernag.net/beef-processing-capacity-limits-cattle-industry-profitability/)

2. Is there a lack of price transparency in the U.S. cattle market?

Answer: Currently, all negotiated cash transactions in the fed cattle market, all net formula prices, as well as premium and discount distributions, are reported through LMR. This means significantly more price information is available to market participants than in many other agricultural commodity markets. To the extent that additional information about how formula prices are settled is needed, an appropriately drafted bill to create a cattle contract library could help. Such legislation should have sufficient safeguards to protect contracting parties' identities and proprietary business practices. A contract library that discloses too much information could lead to the packers using publicly available data against cattle producers when they negotiate a new contract. Packers have considerably more resources, compared to cattle producers, to sift through data and use it to their advantage. Additionally, industry stakeholders have agreed adding additional states to the existing 5-area fed cattle reporting regions would be beneficial.

3. The Iowa-Minnesota region grades the best of any region when it comes to cattle quality. Yet, the Iowa-Minnesota region also sells the highest percentage of cattle on the cash market. Do you acknowledge that you can also use the negotiated cash market to achieve premiums in the market?

Answer: USDA publishes data on cattle grades in its weekly "National Weekly Cattle And Beef Summary". The report for May 16 shows that for quality grades, Iowa/Minnesota graded 88.27 percent prime or choice, while Nebraska was at 87.84 percent, Colorado at 83.96 percent, Kansas at 83.49 percent, and Texas/Oklahoma/New Mexico at 69.93 percent. However, quality grades only comprise one component of a formula arrangement. Another key component is yield grade, for which Iowa/Minnesota ranked the lowest. For instance, in the same May 16 report, the Kansas region was at a dressing percentage of 63.89 percent, Texas/Oklahoma/New Mexico at 63.78 percent, Nebraska at 63.32 percent, Colorado at 62.89 percent, and Iowa/Minnesota at 62.71 percent. While there are a number of reasons that contribute to more negotiated cash trades occurring in the Iowa/Minnesota region, one reason could be the low dressing percentage that could lead to additional discounts not seen in the other regions.

A true negotiated cash trade does not include a premium or discount. It is simply a live per hundred weight price for a fed animal. In recent years negotiated grid sales have grown in number. This occurs when a producer and a packer agree on a cash base price at the time of sale, that is later adjusted for premiums and discounts after the cattle are dressed and graded. It is my understanding, however, that currently the base prices from these negotiated grid sales are not included in the negotiated cash sales reported by LMR. Instead negotiated grid sales are reported in a separate report that only contains the net price with a significant time delay from the date of sale. Therefore, without a change in LMR, the negotiated cash base of a negotiated grid sale, would not factor into the formula settlements unless USDA modifies the weekly LMR report.

While negotiated grids have grown in number, it is important to note there are a number of reasons cattle producers choose to enter formula arrangements in lieu of traditional negotiated cash sales or negotiated grid sales. These reasons include a more reliable processing schedule; transportation considerations; better ability to manage market risk; and value-added programs, like nonhormone treated cattle or a low-carbon footprint brand line, that are not well-suited for a negotiated grid.

It is also important to understand that the level of cash trade in the Iowa/Minnesota LMR region has little impact on the formula trade in the Kansas LMR region. My formula arrangements, as well as those of most Kansas feedyards, settle on the LMR reported weekly weighted average negotiated trade reported for the region where the cattle originate. Therefore, higher levels of cash trade in Iowa/Minnesota have little impact on formula settlements in Kansas. As a general matter, the packers do not want to settle formula cattle from one region on the LMR prices reported in another region due to significant basis fluctuations throughout the year.

4. Do you believe cattle market price discovery is a public good?

Answer: Yes, but as noted by economists, just because something is a public good does not mean that government can or should regulate the process.[3] Such interventions would reduce market efficiency, increase transaction costs, and negatively impact market price levels. Instead,

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[3] *See* Derrell S. Peel, et al., Fed Cattle Price Discovery Issues and Considerations (2020), available at https://extension.okstate.edu/fact-sheets/print-publications/e/fed-cattle-price-discovery-issues-and-considerations-e-1053.pdf.

price discovery improvements should evolve through the free-market process and allow cattle producers to respond to market conditions.

5. Do you have a responsibility to contribute to cattle price discovery?

Answer: Without question, our feedyard has a responsibility to contribute to cattle price discovery. We are not, however, responsible for jeopardizing our profitability or that of our customers by abandoning the marketing principles and strategies that have made us successful over the past 15 years. AMAs, forward contracting, and the utilization of quality grade formulas have allowed us to differentiate ourselves and our customers in a highly competitive market. These pricing mechanisms have radically elevated the quality of American beef since the 1990's. This incredible increase in quality across the industry is mentioned in detail in my submitted written testimony.

Senator John Thune

1. From the National Cattlemen's Beef Association's perspective, what is the best way to improve the cattle market situation for producers?

Answer: First, I think it is important to note make clear NCBA opposes government mandating a minimum level of negotiated cash trade. Market participants should be allowed to adjust market practices to find the most efficient and innovative way to discover price. For instance, many formula contracts contain clauses to alternatively settle the transaction price if the regional negotiated cash trade becomes too thin. This could include settlement on a futures price with a basis adjustment or some other mechanism. With time, market participants could also develop new methods of formula price settlement like a settlement based on some variation of the boxed beef price. I do not feel that we need to continue basing price discovery solely off negotiated cash trade. That is a 20th century pricing mechanism being applied to a 21st century industry that is far more advanced than it was in the 1990's.

Other market-based solutions include voluntary efforts, like the one I participated in that was coordinated by NCBA to increase negotiated cash trade in the fed cattle market. This program met its goal of increasing the amount of negotiated cash trades by cattle producers conducted and reported in a given region. The NCBA program did not require rigid metrics like a federal mandate and allowed efficient allocation of trades among interested parties, unlike a government mandate. For more information on this project, please refer to my written testimony and accompanying attachments.

Ultimately, much of the consternation in cattle country revolves around price level, a function of supply and demand, not price discovery. Currently, we are at the point in the cattle cycle where herd size has expanded, but capacity has not. To that end, NCBA supports initiatives like the Butcher Block Act to expand processing capacity. At a more local level, NCBA policy supports, with certain food safety limitations, allowing interstate sales of state inspected meat. In addition, due to drought and economic conditions, the cattle herd has begun to shrink. Cull cow slaughter has increased, and fewer heifers are being retained for replacements. This will soon materialize in fewer cattle placed in feedlots. If beef demand stays strong, this will return leverage back to

the cattle producer, increasing profitability within the cattle production end of the beef supply chain.

NCBA also supports market transparency concepts like a cattle contract library, which could help cattle producers better understand existing formula arrangements and negotiate future contracts. Such legislation should have sufficient safeguards to protect contracting parties' identities and proprietary business practices. A contract library that discloses too much information could lead to the packers using publicly available data against cattle producers when they negotiate a new contract. Packers have considerably more resources, compared to cattle producers, to sift through data and use it to their advantage.

Finally, NCBA believes certain changes can be made to LMR to increase the reliability of reported negotiated cash trades. For instance, the U.S. Department of Agriculture (USDA) should examine enhancing existing LMR regions. NCBA believes, based on a recent report commissioned by USDA, that Wyoming should be added to the Colorado region, and South Dakota and Illinois should be added to the Iowa/Minnesota region.

> Further, what do you anticipate will happen to the cattle market if the Cattle Price Discovery and Transparency Act is enacted?

Answer: If enacted, the Cattle Price Discovery and Transparency Act will remove the ability of American ranchers and cattle feeders to market their cattle as they see fit. It will impose higher transaction costs on the industry and damage the price discovery process. Feedyards will face more risk and recognize less reward if we, and our customers, are forced to trade in a negotiated cash market. This cost will ultimately be passed back to the cow-calf sector in less dollars per head that cattle feeders are willing to pay cow/calf operations for feeder cattle. In the case of a custom feedyard, like mine, customers will be inhibited from capturing more of the value of their cattle. It also would damage value added programs like nonhormone treated cattle, natural and low-carbon beef. These programs rely on AMAs to ensure producers are paid for the specialized production practices required by the programs. Restricting access to AMA's will inevitably lead to lower quality beef over time because the incentive to produce it will be removed. According to respected agricultural economists, like my fellow hearing panel member, Dr. Stephen Koontz, the effect of enacting the mandate contained in S. 4030 would be millions of dollars of lost opportunity in the cattle sector.

In addition, the mandate will create significant uncertainty for the small ranchers who are my customers. Many will no longer be able to access the value-added benefits of AMAs as packers will likely force smaller producers to trade the cash market because the mandate in S. 4030 obligates the packer to comply. As a result, the packer, not the producer gets to choose which producers will receive a formula and which will be forced to trade the negotiated cash market to meet the law's mandate.

I thank each of you for your questions and your consideration of my opinions, those of my customers, and my peers in the Kansas Livestock Association and the National Cattleman's Beef Association on this subject.
Shawn Tiffany – Tiffany Cattle Company

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Questions for the Record
Mrs. Shelly Ziesch

Senator Reverend Raphael Warnock

1. Cattle are raised in all 159 counties across Georgia. According to the most recent data from the University of Georgia, the annual economic value of this cattle production exceeds $591 million.

   One complaint I often hear from farmers in Georgia regards a lack of local processing capacity. Ms. Ziesch, you noted in your testimony, "Increasing local and regional slaughter capacity will create opportunities for cow/calf producers to add value to their cattle on their own operations."

   a. Will you elaborate on this? How will increasing local slaughtering capacity create better opportunities for cow/calf producers like you and those across my home state of Georgia?

   Increasing local and regional slaughter would have those additional processors bidding for cattle to sell through their businesses. There was a regional processor located in West Fargo, ND where there was a good market to sell cull cows. Once this plant closed the cash bids for cull cows went down because of lack of competition in ND. This occurred both in the sale barn where their buyers bought cattle and those we delivered directly to the plant since there isn't another plant in the area to pick up where this market has left.

   b. What additional investments do you believe are needed from Congress to make more local processing capacity a reality and to better meet the needs that farmers like you are seeing on the ground?

   I believe more funding is needed for new plants and expansion of existing smaller plants. A safety net so that these regional plants cannot be taken over by one of the big 4 would also be helpful to secure a future for these processors as that is one of the big fears of investing in a regional processing plant. In visiting with members of a small local processing plant they stated most of the funding they are currently able to access through USDA would go almost entirely to the environmental study and not have enough to help with any construction costs.

Senator Roger Marshall, M.D.

1. You mentioned receiving a lower price than you anticipated because you sold feeder cattle on or around the time of Russia's invasion into Ukraine.
   a. Did you take any steps to manage price risk?

Yes, we have purchased LRP on different loads of cattle and contracted cattle to try to mitigate the risks.

2. Have you ever entered into an alternative marketing arrangement (AMA)?

We do some contracting of cattle, around 30% or less of our calf crop and I would guess that is a version of AMA. We do it more short term, maybe a month out or less. We used to do more, but decided that doing more was giving the holders of the contracts too much power and control of the cattle market. We could already see it happening in the malting barley industry in ND and did not want to go that same direction so have reduced the number of cattle being sold through contracts.

3. Do you retain any ownership of your cattle in a feedyard?

No, we do not retain ownership of cattle in a feed yard. We based this on friends and neighbors having poor results from retained ownership and not wanting that additional risk. Some years it works out ok, but other years they don't cover the feed costs with a lot of risk. Cow/calf producers have ONE calf crop to market, ONE shot at income generated from those calves and we try to maximize income and minimize risk as best we can.

4. During your testimony, in regard to the regional cash mandate provision in S.4030, you stated, "The best you can do is give it [regional cash mandate] a try and see if it works," and you also stated, "It [regional cash mandate] can't hurt. What we have now isn't working."
   a. If economic data shows that a cash mandate would depress the price that feedyards can pay for your feeder cattle because the feedyards would lose revenue as a result of the mandate, would you still contend that Congress should pass a regional cash mandate?

What we have now is not working and that would still be the floor if this bill is passed with the maximum being 50/14. I would still be in favor of this bill because future projections cannot give us the full picture of what the impact will be. Numbers can be made to look however you want depending on what you are trying to predict and the outcome you want. We can look at history and see that ranchers got almost twice as much as the consumer dollar as we do now and that was before the consolidation in the meat packing industry and having more negotiated trades.

Senator Charles Grassley

1. Is there a lack of price discovery in the U.S. cattle market?

Yes, there is a lack of price discovery in the U.S. cattle market. There should be an easily accessible resource where producers and feedlot operators can access the days price and numbers sold.

2. Is there a lack of price transparency in the U.S. cattle market?

Yes, there is a lack of transparency in the U.S. cattle market. There should be a resource available to allow producers and feedlots to know what is going on in the U.S cattle market.

Senator John Thune

1. What are your thoughts on the effects cash trade mandates would have on the cattle market?

As a cow/calf producer we get one calf crop and one chance to sell them. I was told 4 years ago that we have to "Let the packers take record profits now and they will eventually trickle down to producers"...still waiting for the trickle-down effect 4 years later. This didn't just happen during the Covid pandemic, but it did bring it to light to the rest of the country.

This isn't just about keeping producers on the land, it is also about food security, which in turn is about national security. Those who control the food will control the nation. If we continue to allow consolidation in the farm and food industry we are allowing multinational companies to slowly take us over and be in control. This is once again being highlighted by the current baby formula shortage for certain specialty formulas. We need to protect our family farmers and ranchers who are feeding the nation.

We also need a Foreign Meat Labeling Law to make processors label foreign beef and pork. The volunteer label does not work. Every package of meat coming into this country is labeled by country of origin. Live beef and pork imported should be branded or another form of permanent marking denoting the country of origin and could be processed in a different plant to differentiate it from our domestic product and labeled as such. All of the arguments of it will cost US producers too much would be eliminated because US beef and pork would not incur any increased cost and it would go on the foreign beef being brought in. I believe this would also possibly be in compliance with the WTO or could be revisited. This would also be a huge benefit to our US cattle producers to be able to differentiate our product and help our prices received as when we had mCOOL we received the highest prices for cattle and young farmers and ranchers were starting to come back into farming and ranching.

Response to Questions for the Record from the
U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Regarding

Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022

Stephen R. Koontz
Department of Agricultural & Resource Economics – Colorado State University
May 23, 2022

As requested, my responses follow the questions.

Ranking Member John Boozman

1. We all hear about the importance of risk management for farmers and ranchers in order to withstand market volatility, natural disasters, the pandemic and so on. Cattle feeders have few options when it comes to risk management, unlike crop producers who have access to insurance through USDA's Risk Management Agency or the commodity price support programs they can rely on in difficult times. Will you please describe how the cattle feeding sector manages risk and how this legislation may impact risk management?

First and foremost, cattle feeders make use of futures and options tradable on the CME Group exchange. Use of these tools is referred to as hedging. All commercial cattle feeding operations make use of hedging and manage the price risk associated with their portfolio of fed animals, feeder animals, and feedstuffs. Feeding cattle without managing risk in this fashion is only done by very small and diversified producers and even then this activity is rather speculative. The tools are not perfect and are not subsidized like crop insurance or Livestock Revenue Protection products. But futures and options can be effectively used to manage market price risk. Livestock producers do not have the production risk that crop producers have and therefore the risk management needs are rather different.

As opposed to the practice of risk management with futures and options, cattle feeders can forward contract with packers. Forward contracts are only 10-20% of fed cattle marketings but forward contracting can be very important to some producers. I know producers that do not forward contract at all with packers – risk management is entirely with futures and options. And I also know producers that only feed cattle after they have established a forward contract with a packer. These producers tend to be younger and more highly leveraged. These producers finalize the purchase feeder animals only after the contract with the packer is secured. I know of producers that will transition from using futures and options to a forward contract with a packer. These producers will remove the hedge when they have contracted the cattle for delivery with a packer.

Similarly, I know of producers that will forward contract with a packer and maintain the hedge because the forward contracted is valued using basis price. (Basis is a difference between cash and futures. Hedging exchanges price risk for basis risk and the basis contract removes the basis risk. For example, a forward contract may have a basis price of "$3 over." If the hedge is established at $150/cwt then the cattle are effectively sold for $153/cwt.)

It is clear that forward contracts add considerable flexibility to the firms that use them and are AMAs – forward contracts are alternatives to the cash market. Use of these AMAs would be limited through S. 4030. If packers are required to purchase in the cash market then fewer forward contracts will be agreed to. It is interesting that most industries substantially forward contract. Grain supply chains are largely coordinated through forward contracts. Most industrial markets are coordinated with forward contracts – metals, energy products, debt instruments – and most semi-finished or components in industrial production are coordinated through forward contracts. For example, there is no cash market for industrial pumps or engines. Limiting forward contracting is limiting an aspect of coordination and risk management and would not be considered beneficial in any industry that I am aware of.

Finally, I know of many producers that view the futures market for fed cattle (the live cattle contract) as the most important market for price discovery in the cattle and beef complex. The live cattle futures contract is absolutely the most visible and arguably the most transparent. It cannot be manipulated because of the depth of market participation. This market is also so important because it is forward looking. The current cash fed cattle market price reporting is all of what has happened. It is the futures market that provides information as to what market participants think will happen – over the next 12 months. This is truly the market where price discovery occurs for cattle. And the same case is absolutely true for all grain markets for which futures contracts trade. Cash markets contribute to price discovery but it is in the futures market that a substantial portion of price discovery occurs.

Limiting AMA use will limit forward contract use, limit flexibility, and increase costs of risk management for the producers that make use of those marketing methods. Hopefully, if AMAs are limited that any spillover effect does not impact price discovery in the futures market.

2. Your research and testimony, along with numerous other Land Grant University economic analyses and publications, conclude the proposed federal cash mandate under S. 4030 would limit a producers' ability to negotiate prices and the future delivery of cattle as they choose. How will the proposed cash mandate affect the placement of feeder cattle into feedlots, the delivery of fed cattle, and otherwise limit producer's autonomy in how they choose to market their cattle? Do you think the proposed federal cash mandate would disrupt the cattle supply chain and increase price volatility?

AMAs and in particular formula marketing agreements are efficiency producing tools. AMAs are used because they benefit the parties that make use of them. AMAs also benefit the overall marketplace. The system of cattle and beef markets benefit from the improved coordination and better cattle management.

Mandating cash trade will disrupt the marketplace. The resulting marketplace will function not as well. When marketing dates are uncertain then that impacts placement dates and the cattle feeding enterprise is not operated as efficiently. There will also be increased volatility. And disruptions will prevent cattle prices from being as high as they would otherwise would have been in a more well-run system. Disruptions and higher costs will create market environments where the resulting cattle prices will be lower. Volatility and disruptions are costs and costs to margin operators get passed on to consumers in terms of higher downstream prices and to producers in terms of lower upstream prices.

Further, having an AMA allows for long term planning on behalf of the cattle feeding enterprise. If the cattle feeder knows that they will be compensated for particular animal or meat characteristics – and

knows how much – then they can secure feeder animals and a pipeline of feeder animals that will most likely result in the desired characteristics. These practices are much less likely to just occur in the cash market. Contracts are how long-term characteristics are secured. No producer is going to feed "natural" or organic animals without knowing they have a market for those products and understand potential compensation. The same is true for high-marbling and better-yielding cattle. Almost all the product innovation that producers have participated in are associated with contracts and these contracts are AMAs. The financial risk is too great to rely of the cash market to coordinate these innovations.

Across the entire cattle feeding and meatpacking sectors of the agricultural economy, the costs from disruptions are minimally hundreds of millions of dollars and reasonably billions of dollars. Further, the costs or losses or inefficiencies cumulate. The losses are permanent and do not average out. These costs are always costs. These are not costs that are someone else's salary or sale. These costs are losses due to the system not operating as efficiently as would occur with AMAs not being limited.

3. In 2007 a major study conducted for USDA, which was funded by Congress – the USDA-RTI Livestock and Meat Marketing Study – calculated the costs of losing alternative marketing arrangements (AMAs). I am told you participated in that original study and understand the analysis, and I know you have updated some research since. Given your unique understanding of this topic, could you comment on the impact that USDA forthcoming Packers & Stockyard (P&S) rules might have on AMAs or cattle marketing and what the associated costs could be associated with those changes? I know your work was referenced in the Texas A&M study that forecasts hundreds of millions of dollars in loss from a legislatively imposed cash market minimum mandate, but am I correct that the P&S rules could have an even more detrimental effect on AMAs, and thus imposed even greater costs surpassing $1 billion to the cattle market?

I did participate in the 2007 USDA-RTI Livestock and Meat Marketing Study. I was a member of the Cattle and Beef Team and the Downstream Team – there was also a Hog and Pork Team and a Sheep and Lamb Team – the Downstream Team looked at all the meats. The project created a unique opportunity that I otherwise might now have had in my career. A large portion of the LMMS was not simply data analysis but it involved interviewing all segments of the cattle and beef industry – cow-calf producers, stocker producers and backgrounders, cattle feeders, meatpackers, distributors, retailers such as grocery chains and food services. All segments were interviewed about their market use, marketing practices, and thoughts on past and future activities.

Market use and practices used were driven by economics, economics, and economics. Doing the most business possible, improving efficiency, reducing costs, improving quality, developing and satisfying demand, creating investment and business opportunities, and managing risk. AMAs do all these things. AMAs are the innovation in the cattle and beef industries – and in the other protein industries – and create value for the businesses that use them and to the overall marketplace.

AMAs are not one-sided. Are not dictated. And have been negotiated by the cattle industry with the packing industry. AMAs are also extensively used in downstream meat product markets – for the same reasons.

The research on AMA use is straightforward. Packers and cattle feeders are margin operations. If costs can be lowered then higher prices can be paid for inputs purchased and lower prices can be accepted for outputs sold. The cattle feeder that can operate at the lowest cost per head and is willing to operate at the smallest profit margin – or hedgeable profit margin – will do the most business. The same is true of the packer. Imposing disruptions on the supply chain increases costs. And imposing regulatory burden will increase costs. These costs will be passed up to consumers and down to producers.

The P&S rules with which I am familiar are reasonably vague and in my experience these end up being more clearly defined through legal proceedings. I am not familiar with investigations that have found broad based anti-competitive conduct by the packing industry. I am not familiar with efforts that have shown clear and excessive market power. Investigations that I am familiar with show markets functioning rather as anticipated in the context of often the disruption that trigger the investigation – and that producers where rather dissatisfied with the conclusions.

Any and all costs will be absorbed by the businesses upon which those costs are levied. Those costs will be covered by some portion of the consumer's dollar that is spent into that system. The remaining portion of that dollar is then allocated throughout the remainder of the market participants.

4. The majority of fed cattle—more than 60%—are marketed through AMAs. Only around 20% are marketed on the cash market. How has this happened and who, if anyone, has driven this transition away from the cash market?

Formula marketing methods were developed, and implementation was sought, by the cattle feeding industry. Cattle feeders largely created this idea. And the idea emerged from cost reducing exercises by individual cattle feeding enterprises. Formula operations are in my experience rather more efficient that enterprises that rely largely on the cash market. Cash marketers have much more flexibility and the ability to respond to market opportunities – and often state that is why they participate in the cash market – but in the end their cost of performing the same services as formula enterprises tends to be higher.

The packing industry agreed to adopt formulas as long as the price paid for those animals – the base price – was perceived as the same as paid for other animals. The idea being that the cattle were valued at the market. And the agreed to specific market prices was usually that reported for the prior week. (In the original formulas, packers agreed to pay "plant average" prices. Or the same base price that they were paying for other cattle going to the plant where the formula cattle were processed.) Some weeks the past week's price is higher and some weeks lower but in the long term the animals are valued the same – at the market. After formula marketing became more prevalent then meatpackers also conducted cost cutting and efficiency improving exercises. Packing plant operations are easier to manage and manage with fewer people when formula marketing methods were used.

But it is the cattle feeding industry that demands formulas. A common statement made by every packer that I have spoken to is that, "Packers will buy cattle however cattle feeders want to sell them." Formulas benefit the businesses that use them and largely result in a better functioning overall marketplace. The better functioning overall marketplace is agreed to by cattle market analysts.

5. What is occurring in the cash markets for other agricultural commodities? Is it common to see diminished cash market participation for marketing of agricultural commodities, and if so, what has been the impact on those industries?

Almost every agriculture industry that I am aware of has moved away from the cash market and has attempted to improve coordination through forward contracting and other alternatives to the cash market. The industries that have done this have also grown substantially. It is the reaction by cattle and beef producers – that often do not participate in the fed cattle market – that is unique.

The cattle and beef industry are distinctive in my understanding in that more formulas are used as compared to forward contracting. But formulas combined with hedging through futures and options are essentially forward contracts. Formulas built in much of the quality and performance characteristics that are found in forward contracts in other markets and industries.

It is also my understanding that many of the trillions of dollars of debt instruments that are traded annually in the U.S. and across the world are done so through alternatives to the cash market. Many transactions use formulas. (For example, I have bought U.S. Treasury debt instruments through www.treasurydirect.gov. And I never have bid directly at the auctions. But I have purchased at prevailing market price discovered by those that do. That's a formula trade. I have only bought U.S. treasuries through a formula.)

Similarly, many billions of dollars of oil and other energy products that change hands annually are traded through alternatives to the cash market. Many use formulas and forward contracts. Some of the formula trades actually occur at the mid-point of prices from the bid/ask spread in the underlying cash market. It is my understanding that some formula transactions use prices for which no cash trade has taken place. Is that reasonable? It certainly is if you recognize that the market participants have a strong incentive to trade and discovery a different price if the bid/ask price is incorrect. Businesses that use formulas have a strong incentive make a different price if the price that they are observing and trading at in the marketplace is somehow incorrect. However, using that cash market is expensive compared to that the alternatives. The cash market is used only if the prevailing bid/ask spread does not correctly reflect market conditions.

Finally, electricity markets that can be supplied through forward contracts are well coordinated and you never read about them in the business journals. It is the shocks to the system requiring providers to purchase from the spot electricity trade that is most disruptive and makes news.

Growth and change in agricultural markets, and other commodity markets, are because of economic incentives and that result in more being produced for less. Are their winners and losers in these situations? Of course. It is also how we have progress and increased productivity in the economy, and that is how we live better than our parents. The idea that something is wrong with fed cattle markets is simply incorrect and especially so when viewed through the lens of what is happening in all other commodity markets.

6. If S. 4030 is adopted, some stakeholders argue that the premiums producers receive when they market through AMAs will simply shift to the cash market, resulting in elevated cash

market prices. Your testimony suggests you do not agree with this assumption. Can you explain why?

The ability to successfully capture premiums and avoid discounts depends on cattle management. Formula cattle are better managed. Negotiated cattle are by definition managed by the market and by the bid-and-ask process. Negotiations can fail. Cattle are not necessarily delivered in the week that best matches optimal quality and the ability to capture premiums and avoid discounts. This risk that the negotiations fail is the source of the disruptions to the marketplace. Negotiated trade deliveries are more variable that formula cattle deliveries. If premiums could have been captured through the cash market, then they would have been. The evidence is therefore to the contrary. I have never communicated with a formula enterprise nor a cash negotiating enterprise that would agree with the premise of this question. If it could be done then it would be done and there is no need to mandate. Without some agreement there would be far too much financial risk – especially for cattle feeders.

7. If S. 4030 is adopted and becomes law, we can assume that the Secretary would require increased volumes of cash trading for fed cattle, resulting in some contracts or AMAs having to be broken. Who would be responsible for determining who gets to keep their AMA and who doesn't?

That would have to be negotiated between the packer and cattle feeder. But the legislation is focused on the packing sector so it will be the packer that makes those choices. I know of plenty of cattle feeders that would like to see – and have others do – more price discovery. Those cattle feeders are at the same time not willing to give up using their formula arrangements. So, if a packer currently has a plant that specializes in processing formula cattle – for example a natural product line or an export market product line – and that plant will have to for example procure 50% of their needs in the cash market. It is unlikely that cattle producers will commit to product lines such as those without a contract. Cattle feeders do not commit to higher-cost efforts like natural without knowing the reward for that commitment will be there. Therefore, that portion of that value-added product line will disappear. The natural cattle will move into the commodity production system – with its lower return.

8. I frequently hear concerns from cattle producers that the beef and cattle industry could become a vertically integrated sector where packers own the cattle and ranchers perform the role of caretaking for the livestock. Do you think this is a possibility that could come about in the cattle sector absent Congressional intervention?

This concern is about an impossibility. The amount of capital required to have and maintain the land-base for a national cow-calf herd is enormous. Even the land necessary for a small portion of the beef cow herd would be cost prohibitive. Further, the economic return to cow-calf producers is modest. This is just not a direction – vertical integration through direct ownership – that the cattle and beef industry is going to go. Those that think this concern is real have not done the due diligence on the financing required nor the returns that might be realized on that investment.

That said, I could see the cattle and beef industry benefiting from improved coordination – between cow-calf production and finished cattle processing. The cattle and beef industry is the only industry that I know of where the base production decision – the number of cows in the herd – is so separate from

the final processing decision – the packing capacity investment decisions. This results in a tremendous amount of inefficiency compared to other commodity industries.

To offer more context on this point, from the late-1970s until 2015 there was substantial excess capacity in the packing industry. For me as a market watcher and researcher a main issue relevant in those years was which firm might be bought or sold and which plant was going to be closed. Those were the persistent questions for 40 years. Excess capacity in the processing industry was the main issue. In 2016 cattle production and packing capacity were actually in balance. And from 2017 through 2021 there were far more cattle than could be processed by the available packing capacity in a 5-day work week – Saturday kills were required to process available supplies. From an economic standpoint it is very likely there were a lot of wasted resources due to the lack of coordination.

However, I see no way around this issue of a chronic imbalance of packing capacity and cattle numbers. The packing industry has lived through 40 years of more plant capacity than cattle. Cattlemen got used to packers always being hungry. And packers got tired of closing plants.

AMAs are how coordination is done – how cattle feeder and packers commit to making change to the quality of cattle that are delivered and the beef products that are marketed – without integrated ownership. Improved cattle and beef cannot just be secured through the cash market. If it could then there would be less of a need for AMAs. AMAs are how cattlemen know what they are going to be paid and how packers know there is commitment to supplying the product long-term.

The most serious issue that I see is that the mandates will result in a smaller beef industry. And that is in the long-run and across decades. The packing industry is going to be cautious about expanding. After years of overcapacity, a sustained drought that we are currently facing in the west and high plains, and a willingness to legislate in a manner that will impact innovation then I see the packing industry focusing on managing the production capacity that they have and on being the low-cost producer. I see the packing industry focusing on securing and maintaining a skilled labor force. Labor will be the packing issue for years to come. Growth opportunities for cow-calf operations will have to incorporate using the cash market and that will also focus on maintaining low costs of production. I don't see growth opportunities in this environment. I do not see opportunities to target the protein export market. I do not see opportunities develop large branded programs that improve and maintain quality – whereby the producer is a substantial participant. There will be opportunities for food scientists, however.

9. Witnesses in Congressional hearings are frequently unable to share all of their thoughts or respond to statements made by other witnesses. Please share any additional thoughts or respond to any statements made by witnesses that you believe will help inform the committee members.

I started my testimony with a question that is a response to a question I often receive. Producers often ask me, "What can be done about packer concentration?" My response is, "Would you rather have one bid from a packer with $200 per head processing costs or bids from three packers with $500 per head costs?" I am certain that you will be better off in the long run doing business with the one packer. Some portion of that $300 relative efficiency will come back to you in better cattle prices. Not all of it and all the time but certainly some. During the panel there was discussion things would be better with more bidders. I agree but maybe five or ten dollars per animal and certainly not some portion of $300.

The cause of concentration within agricultural markets is economies of size. Big firms and facilities are less costly than smaller counterparts. That is an economic fact.

The only cattle feeder on my panel was interesting and what I see as typical of a relatively young innovative producer. That was a person with a business in which I would be willing to invest. That was a thoughtful, creative, and innovative producer that took over and grew a business. And that is who this legislation hurts. Regarding the other two participants in my panel, I understand that neither participates in the fed cattle market and neither has any experience conducting research, studying that market, or even a working understanding that market.

I have heard a lot of discussion that producers in Iowa are doing all the work of price discovery and everyone else is benefiting from that work. These statements are incorrect bordering on ludicrous. No region of the country uses prices from Iowa in their formulas. The exception would be formula marketers in Iowa. Formulas in Kansas for example make use of the USDA AMS Kansas price. Likewise, formulas in Texas make use of the USDA AMS reported price from the TX-OK-NM region. Iowa prices contribute to the 5-market weighted average but Iowa is not doing all the work with everyone else freeriding. Anyone making that statement and standing by it is uninformed. Further, price discovery as can be objectively measured occurs in all of the USDA AMS price reporting regions of the country. The only region that does little price discovery is Colorado. And Colorado has – by most measures – done very little price discovery historically. The lack of price discovery in Colorado is not due to changes in formula use. If Colorado traded more cash cattle it is my assessment that the region would continue to do little price discovery. What happens in Colorado is just not that important compared to the other regions and the overall market. All the other four of the five major price reporting regions conduct substantial price discovery: TX-OK-NM, Kansas, Nebraska, and Iowa-MN. As does the futures market.

I appreciate the opportunity would like to share additional thoughts. This proposed legislation is interesting in that it appears to be punitive. It is targeted at businesses and a sector of the economy that is simply viewed with distain and is currently perceived as making too much money. The changes in fed cattle prices and packer margins can easily be explained by capacity relative to the number of fed cattle. After decades of a difficult market environment – having substantial excess packing capacity – the packing industry should be investigated for not losing money? Cow-calf enterprises saw five-to-eight fold increases in profitability around 2014. Large swings in profitability simply happen in commodity systems following large shocks to supply and/or demand.

The policy also targets a region of the U.S. for the perceived benefit of another region. The southern plains have been very successful at developing a system of feeding and processing cattle and it is to be diminished to the benefit of the upper Midwest most notably Iowa. Iowa has the highest quality cattle so Texas should be limited in opportunities. That is the purpose of national policy? I do not believe that Texas's loss will be Iowa's gain – it will simply be the beef industry's loss.

Knowing what I know about industry concentration – that it is the result of economics of size – this legislation will not change industry concentration. (Only limiting tractor size in eastern Montana will bring more bars back to that area. That and subsidizing Uber.) Knowing what I know about price discovery this legislation will not improve price discovery. Price discovery is not determined or improved by the volume the negotiated cash trade. I also believe that price discovery is not the purpose of the legislation. This legislation is about packer margins being too high and cattle prices being too low. Never mind that packing capacity has been in excess of cattle numbers for at least 40 years and that for only the past 5 years the situation reversed in that there have been more cattle than could be processed

in a 5-day work week. The packing industry has lost millions of dollars through plant closures and write-offs over the prior years. The communicated idea is that the investors in that industry should shovel money onto the cattle industry – packing should be a nonprofit sector? Because it has had substantial profit difficulties from the 1970s until 2015 it should continue so? That should be of national policy?

The economics of the issues are very clear. The costs of the proposed legislation are substantial – it is not my opinion but this is the conclusion of much research. The benefits to price discovery are negligible. This research is new but straightforward. The potential for improved prices to producers is not supported by research. Those ideas are based on market conditions that have not existed since 2015. Any cost-benefit analysis is very clear. And I very much look forward to seeing what is offered subsequently. The cattle and beef industry has worked hard to innovate and be creative to improve that industry – to improve the market opportunities. This work is being dismissed – and to be prohibited – by individuals that have less investment and less interest in change. I have learned much conducting research and doing education programs around cattle and beef markets. And I have learned much about human nature these past five years – or at least the nature of some.

Last, I want to offer the point that a reading and understanding of the research from my profession would not support the proposed legislation. The cattle and beef markets are not such that mandating the volume of cash trade would solve a problem with price discovery or anything to do with prices. The opposite is in fact the case. The proposed legislation will be very costly with few-to-no benefits. This was also a conclusion from a recent conference held in Kansas City in 2021 and sponsored by the USDA Office of Chief Economist and the Texas A&M University Agricultural and Food Policy Center. There were over 20 academics present, presenting, and authors on the papers offered. The key findings of the conference are a quick read and essential summary. And are the same as my conclusion.

Senator Roger Marshall, M.D.

1. How much negotiated trade is needed for markets to function properly?

The question is reasonable and straightforward. However, it does not have a simple answer. First, I'll limit my response to discussing price discovery. How much cash trade is needed for price discovery? There are times where the volume needed might be substantial and there are times where very little volume is needed. There is not a single number or percent or volume that results in price discovery. Sometimes all you need is a bid/ask spread. Discovering price is a human effort – it is not like dosing a medication – it can be a phone call or a text message. It can be what someone said or a perception of what is happening in a marketplace. Discovering price requires the market participants to understand the supply and demand situation and agree on it. Price discovery also recognizes what happens today will impact the market – and therefore the price – in the future. Not selling this week results in more cattle to sell next week. Aggressively selling this week results in less inventory to potentially need to market next week.

And in the end, and the idea of market functioning is broader than price discovery, markets and industries function best when well-coordinated. Price discovery is one idea behind a market functioning properly. But from an economic perspective the situation is best when the most product can be produced and marketed efficiently. Consumers benefit from large quantities and lower prices. Producers supplying the system benefit from selling more and higher prices. Cash markets can provide

some of this function. But in the real-world where participants interact over time and there is a long-time delay between when investments and other production decisions are made and when fruits of those efforts are realized then a cash-on-the-barrelhead set of markets might not do everything best. All industries that I am aware of coordinate are large slice of the system through contracts – through some non-price mechanism. And formulas are that mechanism for the cattle industry.

Senator Charles Grassley

1. Is there a lack of price discovery in the U.S. cattle market?

No. I have conducted research on the topic. The research is ongoing, but I am certain of the result. The amount and quality of price discovery varies – it ebbs and flows and can be objectively measured – but it remains substantial and observed across regional fed cattle makes. Further, it is not related to the volume of negotiated cash trade. Price discovery can be substantial in a regional market with very little cash trade. I will offer more details in responding to question 7.

2. Is there a lack of price transparency in the U.S. cattle market?

Prices reported in U.S. regional markets and the national summary are the result of Livestock Mandatory Price reporting legislation. The prices that are reported are not a sample but are rather from the population of transactions – by the major packers. USDA AMS reports summary statistics for prices from every transaction. If that is not transparent then I don't know what is. We don't have sample of prices. We have all of them. There is no sampling error and there are no substantial transactions that are not collected. We have the population and that is what is reported. Now every individual price is not reported but rather summary statistics are. Weighted averages are reported and ranges.

I have talked with many producers, reporters, and association members regarding transparency and my takeaway from most of those discussions is that most people do not know what is reported nor the detail. Most people have not researched the USDA AMS website nor been to the data portal. Most people have no idea about the depth of reporting that is in the substantial multitude of reports that LMR yields. They simply say, "lack of transparency" and move on.

Every purchase that every major packer makes is entered into the database and contributes to the summary. Every negotiated cash trade, every negotiated grid, every formula, and every forward contract transaction. The phrase "lack of transparency" is used a lot. What more do we need to know? We have prices from every transaction. There is no additional information that can be collected.

Thus, any discussion of lack of transparency might have to do with how the data are disaggregated. And similarly, the confidentiality rules that are followed. In the end these are legislative issues that are not addressed by a mandate.

So as for my second point, I am uncertain as to my position on confidentiality. The economics is not clear. In one sense, each packer knows what they are paying for cattle and receiving for beef. The LMR

data allows them to understand how they compare to all other packers as a group. I know this is done and I also know there are data analysis firms that sell this service. So, confidentiality may not be very important. Further, confidentiality rules are not enforced in many other asset markets. When I trade futures, options, and stocks then I see the price of that transaction reported to the marketplace. I see when my bid or ask is the effective price. So, economics assumes some level of price transparency that accompanies markets. But those asset markets are also very thick – there are a large number of participants. In contrast, for example, the fed cattle market is Colorado is often not reported. That is because we have two major plants in the state and we have to have a different packer come into our region to procure. When cattle are plentiful then that will not likely happen. I would like to more often observe the Colorado price but do we want a policy that reveals to each packer exactly what the other is paying for cattle? It is very likely that cattle producers communicate that information in the trading process but to codify in price reporting services? I am less certain.

I am much more certain about the works of my colleagues at Kansas State University. And these works have to do with aggregation and disaggregation of the details and are my first point. There have been two pieces of work to date that are useful and excellent. The first was regarding the expansion of USDA AMS reporting regions to include neighboring states. Doing this would result in more reporting of prices that were otherwise withheld due to confidentiality. I believe this work should be implemented – or discussed more to assess potential drawbacks. (How similar are the prices in the new regions to the established regions?)

The second piece of work has to do with the formula price reporting or the formula bucket. With price reporting, transactions are assessed as to if they are negotiated cash or if they are forward contracts. If transactions are either of those two then they go into those respective buckets. Anything not a cash trade or forward contract go into the formula bucket. The formula bucket therefore contains a lot. I would like to know what the valuations are associated with new product and substantial value-added programs. That versus formulas that are somewhat like the cash market – some bid and ask – but producers and packers don't what to set the market so they agree for something like "$2 over the practical top of the market." This is a formula transaction but it could be a cash trade. The rational is solid and impact is not problematic. The cattle are a little better than most so the producer wants a little more money and the packers sees the cattle are good quality and will pay a little more. But neither knows what the market price is for the week. My example is from the southern plains where these trades tend to be cattle a little better than most. And in the northern plains it is the cattle that are a little worse than most that are marketed this way – for a price like "$2 under the price for the week."

In the end there are not broad-based transparency issues. But there needs to be public assessment of confidentiality and there can be additional reporting that would improve information about a large category of marketings. None of this is addressed by mandates or the proposed legislation.

3. If some regions provide no price discovery, how will producers establish a base price for alternative marketing arrangements?

All regions contribute to price discovery – as can be objectively measured in research that I have conducted. All of the five USDA AMS reporting regions contribute to price discovery in some form. Further, the live cattle futures market contributes to price discovery and is very important when there is

much uncertainty about market conditions over the next two-to-four months. The TX-OK-NM reported price contributes to price discovery. The Kansas region contributes to price discovery. The Nebraska region contributes to price discovery and the Iowa-MN region contributes to prices discovery.

In Texas, during the absolute high prices of 2014 which was due to the tightest supplies of fed animals, there were weeks in Texas that there was negligible cash trade. During that period the formula arrangements in Texas made use of AMS reported prices for Kansas. And during this period, my research showed that both Texas and Kansas contributed substantially to price discovery when cash trade occurred. Far more than Nebraska or Iowa.

Colorado also contributes to price discovery by some measures and less by others. If there is a region that contributes the least to price discovery it is Colorado. So, what do formulas in Colorado use for a base price? For certain, they do not use the price reported in Iowa. If the USDA AMS Colorado regional price is reported then that is what is used. If that AMS price is not reported, as it has not been for much of 2018-2022, that does not mean there are no prices. Packers know what they are paying and feedlots know what they are receiving for cash trades. Confidentiality emerges when there are fewer than two packers and not no cash trade. A plant average price might be used. These plant prices might be compared to prices in other nearby regions – Nebraska and Kansas – and to the nearby live cattle futures contract price. But the formula cattle feeders and packers had no trouble agreeing on the market price for fed cattle.

Finally, if the fed cattle market in the U.S. is faced with a broad condition that there are very few cash animals across all regions then I believe the industry will do what has been done in all grain markets and all grain trade has done since I believe the 1970s – the cash trade will be a basis relative to futures. Today, May 19, 2022, the cash corn market at terminal elevators in southwest Iowa was 24 to 27 cents over the July corn futures contract price. That converts to price of $8.07¼ to $8.10¼ per bushel. In the northern panhandle of Texas the cash trade for corn at country elevators is 80 to 95 cents over the July corn futures contract price. Everyone trades grain this way and has done so for years. However, basis trades are reported as forward contract under LMR. This is an operational issue in reporting for AMS.

It will not be difficult transition to trading fed cattle through the same means as other commodities. Futures forms the base price and each transaction is relative to that base – some premium or discount. The transition is to what cattle feeders use to trade corn and other feedstuffs.

4. I have read with great interest your analysis of my previous introduced bill often referred to as 50/14 the costs that it would impose of $35-$65 per head. Do you have any analysis to share if the Cattle Price Discovery and Transparency Act stays with just the initial cash trade minimums by region?

First to comment on the dollars per head impact. The $35 per head is a number straight from the 2007 USDA RTI Livestock and Meat Marketing Study. That number is established research but dated. In that research process I was able to assess through using packer P&L data that AMAs were worth $10 per head to the packer. Further, the P&L statements had a profit of $0 per head for the study period. Packers gave that entire cost savings to feedlots to secure animals. (Excess capacity as revealed by those P&Ls was close to 20%.) Interviews with cattle feeding enterprises allowed me to construct an estimate that AMAs were worth $25 per head to those businesses, again in the 2002-04 period, and I

had several businesses tell me that if something was worth $3 to them then they paid $2 to individuals that supplied them with animals. The cash returns to cattle feeding are close to zero in any constructed history. Feedlots give a large portion of their gains to supplier of small animals.

Those two amounts are additive and total to $35 per head. Packers use substantially more AMAS today so the value will have to be higher. Simply inflating dollar amounts will produce a valuation of $25 per head for packers. Valuations of AMAs to feedlots are at least $25 per head. The premiums for high USDA quality grade, better yielding USDA Yield Grades, and the cost effectiveness of improved performance from timely marketing of cattle is at times over $100 per head and just to the feedlot. Making use of $40 per head to combine with the packer valuation of $25 per head is what produces the $65 per head and that number is extremely conservative.

Further, the $35-$65 per head value focuses a lot on packing plant operations. The value of AMAs to the cattle feeding enterprise is in part due to efficiency in the feeding system – the cattle management – but also more explicitly on better returns. The two – efficiency and returns – are very closely related in that securing the premiums and avoiding discounts requires improved cattle management. The value of AMAs to the packer as revealed in the RTI Study was primarily measured through improved plant operations and much less so the improved value of beef. AMAs were relatively new tool in the early 2000s and focus on product improvement and further processing had yet to substantially occur.

But, parsing out the value of this impact in the context of the current bill is impossible. There is no public information regarding how packers and individual plants might be required to change. Let's use Colorado as an example. There are two plants owned by two majors in the region. What plant from what other company will be combined with the JBS and Cargill plants so that there are three plants to determine the mandated cash volume? (At least three plants from different firms are required to protect confidentiality.) Will it be Tyson in Lexington, Nebraska or National in Dodge City, Kansas? I personally think I understand how these four plants might operate and how combinations of these plants might result in a minimum cash trade based on the past two years. But I would not be comfortable calling that that a scientific assessment. The scientific community is in the dark as to the impacts of this proposed policy.

However, we are not in the dark as to the impact. The impact will not be small. The impact will reflect the number of cattle which are required to change how they are marketed with each assessed the $35-$65 per head cost. Again, I believe the $35-$65 per head is substantially conservative and that the actual impact – if measured using research methods with new data today – would be considerably higher. Over $100 per head is likely and time periods of $200 per head are quite possible. If the impact is on 3 million head then it's at least $100 million and more likely several hundreds of millions. And if it's 10 million head then the impact is certainly in the multiples of billions.

But again, offering analysis as to the potential impacts of the current legislation are not known because the legislation makes mandates based on information that is not and never been publicly available.

5. The Iowa-Minnesota region grades the best of any region when it comes to cattle quality. Yet, the Iowa-Minnesota region also sells the highest percentage of cattle on the cash market. Yet, I have in your research that this bill has the potential to reduce beef product quality.

How is Iowa able to conduct more than half of their business via cash transactions while still having the best quality beef by region?

Iowa-Minnesota is known to have the highest number of USDA Quality Grade cattle because of proximity to corn. And it is because the operations in the upper Midwest are considerably smaller than the other single purpose and less diversified cattle feeding enterprise of the high plains. But USDA Quality Grade is not all there is for quality. Iowa-Minnesota has the lowest quality cattle from a USDA Yield Grade perspective. IA-MN has the most Yield Grade 4 and 5 animals. These are the animals with the most outer fat cover and the most seam fat. These carcasses require extensive trimming and further processing by the packer or downstream purveyor. These carcasses can be heavily discounted if there is a preponderance of them and many formulas attempt to minimize the numbers of these animals. They are also wasted money. The highest quality beef carcass is one with the largest amount of marbling and the least amount of yield loss due to excess fat. Iowa does not produce many of these animals. Kansas does. Again, AMAs are successful at producing the quality aspects of beef that downstream businesses are looking for and are successful at limiting the quality aspects of beef that those downstream are not seeking. AMAs are very successful at this. And the southern plains have been far more successful at producing that best mix of quality characteristics. Cattle feeders in the upper Midwest are much less successful at this balancing act and have a tendency to just over-feed.

Further, I am familiar with operations in the upper Midwest and most are part of a farming and animal production portfolio. Farms in the region grow corn and soybeans and many are involved in hog production. Cattle feeding is present but on much smaller scale than western Nebraska, Kansas, Texas and Oklahoma panhandles, and Colorado. I refer to the US Census of Agriculture. The distribution of feedlot size between the upper Midwest and the high plains is substantially different with the latter being far larger.

Finally, I speak from some experience here. For the cattle feeding enterprise associated with my family – in Virginia – there was no market for USDA Select animals – the lowest marbling. There was only a market for high-Choice or better. The packers that bought from us sold carcasses into the northeastern U.S. and into the restaurant trade. Meat yield was far less important than marbling. Further, our buyers wanted smaller carcasses and cuts. My family fed heifers for this purpose. Prior to 2007 we were successful producing very high USDA Quality Grade animals. After 2007 we were better off selling the corn and forage and feeding fewer animals. Common practices in any region are not immediately transferable to other regions. Regions do what their competitive advantage is and do what their market is looking for. The upper Midwest model cannot simply be transferred to the high plains. My proof will be 2022. It will be interesting to see how many USDA Choice or better animals are fed in Iowa, southern Minnesota, and eastern Nebraska now that corn is likely to spend some time at $8 per bushel.

The reverse is also true. I would not consider suggesting that if something worked in Texas or Virginia or California that it would work in Iowa. It is not the use of the cash market that determines the economic viability of the production system.

6. Do you believe cattle market price discovery is a public good?

Yes. Price discovery is a public good and public goods are important and difficult things to protect. For example, education is a public good. And I am not speaking for personal gain. But a well-educated public is creative and solves problems. And is less likely to experience a life that is "nasty, brutish, and

short." Price discovery and reporting is a public good in that is it nonexcludable. Price information that is provided to the public – the use of the information by one person does not prevent others from using the information. But there are also a multitude of public goods that exist almost everywhere you look. For example, there is a strong belief by cattle market analysts that improvements to beef quality since 2000 have resulted in substantial improvements in beef demand. The cause of improved quality was grid-based marketing. And AMAs are main source. The improved demand, a public good for which the entire industry benefited, was caused largely by adoption of AMAs.

7. How thin is too thin for the cash market for adequate price discovery? Does this vary by region? Please provide any data or research you have conducted on this topic.

There is not a simple answer to the first question. I have asked it of many of my contacts in the packing industry and the cattle feeding industry. A common answer is, "2,000-5,000 head per week are needed in TX-OK-NM. 5,000-10,000 head are needed in Kansas. 15,000-25,000 head are needed in Nebraska. And 10,000-15,000 head are needed in IA-MN." These are what I would call expert opinions based on experience participating in those markets. However, these are not based on research tools. But these opinions are far smaller than considered by legislation. Clearly, my answer to the second question is yes.

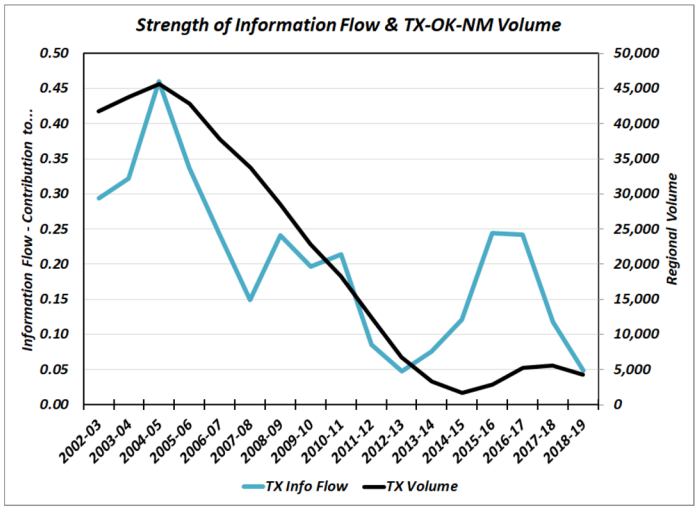
The research I have conducted on this topic can be found at the link below. This was work that I produced for the American Farm Bureau Federation. I continue to work on it today and am pursuing peer-review publication. And I offer some summary in the remaining response to this question. (https://webdoc.agsci.colostate.edu/koontz/importantworks/AFBF%20Price%20Discovery%20Report.pdf)
I am aware of no other work that links price discovery measures to the volume of cash trade.

I began work on this topic through 2013 and 2014. I was contacted by the National Cattlemen's Beef Association and members that had volunteered for service to the association on the Marking Committee. This committee proposes and works on policy related to primary the fed cattle market. At the time there was a concern about the shrinking cash trade in many USDA AMS regional markets and most notably in the southern plains.

The initial work that I conducted found what I thought was a reasonably clear relationship between the volume of cash trade and one objective measure of price discovery. This measure I have used in prior research and it is the tool used by the agricultural economics profession. The following graphic summarizes the measure for TX-OK-NM and the volume of cash trade in that regional market. From 2002, the beginning of Livestock Mandatory Price reporting, until 2013 the amount of price discovery declined as did the volume of cash trade. It is about this time that I drafted my "recommendations" for volumes of cash trade needed for significant and robust price discovery.

That communication was intended for the different state cattlemen's associations and their groups that were concerned about the issue. At the time I understood that the relationship was modest. But I was interested in providing information to folks that were wanting to address the problem. I was asked on many occasions, "If we get more cash trade then how much do we need?" And, "How do we know

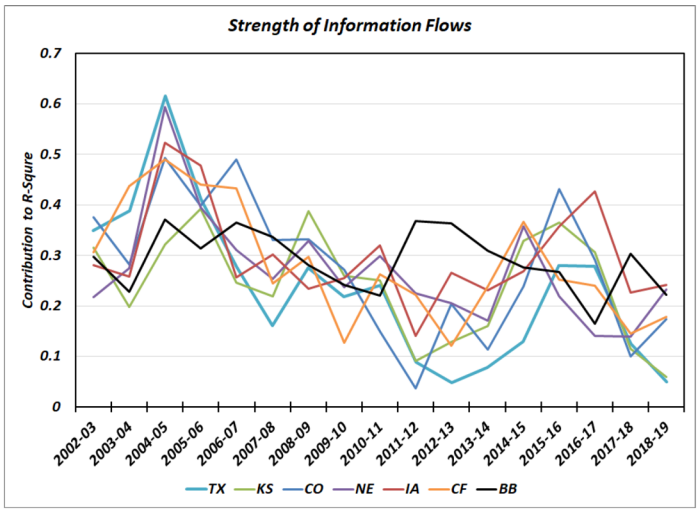
when we've dealt with the problem?" I was struggling to provide useful information to members. Since I started this process my results have been used purposefully out of context.



In updating the research in 2018 and 2019 it became clear to me that the amount of price discovery in TX-OK-NM had substantially increased after 2013. The amount of price discovery in 2015-17 was as large as from 2007 until 2011 with one-quarter of the cash volume. This is clearly seen in the above graphic. (The blue line increases in 2015-2017 to a level similar to 2007-2011 while the black line increases very modestly.) This is important in that what is happening post-2014 is different from prior years.

You will also notice that the amount of price discovery has fallen off in 2018-19 but all of the regional markets do this to a degree. It has become clear to me that price discovery occurs when there is an incentive to do it. Post-2017 the market understood there was an oversupply relative to capacity – that is my interpretation. Further, there is simply an ebbing and flowing of price discovery especially between the southern plains markets and the northern plains markets. One of the areas is usually doing significant work and it is not always the north and it is clearly not related to volume.

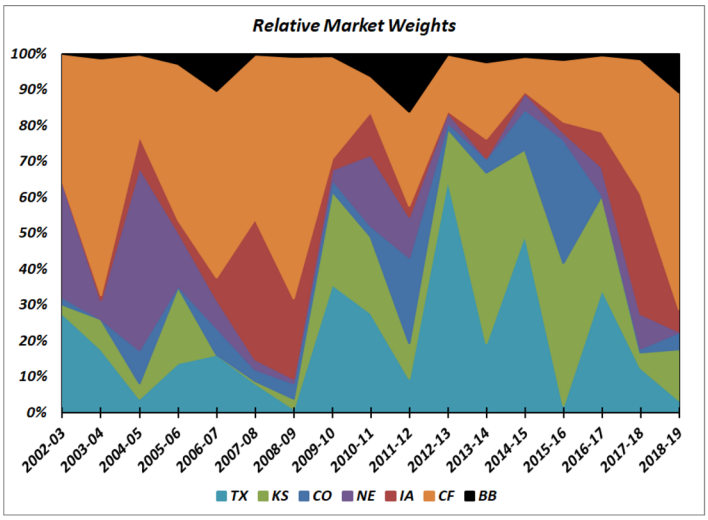
To be complete the information flows measures are presented for all the markets in the second graphic. We can see the ebb and flow of price discovery through time and across regions. There is no market that contributes nothing and there is no market that is totally dominant. There is a decreasing amount of price discovery after the BSE market shock period – where lots of price discovery occurred and was needed. But it is perhaps that the BSE period is not the norm and should not the focused on.

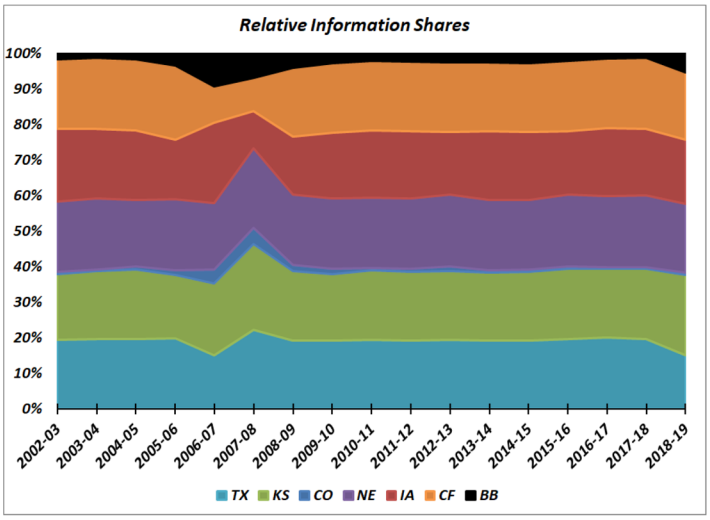


During my updating of this work across the 2016 to 2018 period, I also learned that the finance field has focused considerable effort on understanding price discovery in asset markets. Financial economists made use of two alternative measures and I incorporated these into my research. Those two measures are shown in the next two graphics.

The third graphic shows each individual market's contribution to the underlying cattle and beef market equilibrium price – relative weights. We observe that the northern plains are important in the 2000s and the southern plains are most important in the 2010s – right when cash market cattle volumes in the southern plains are the smallest. (The red and purple regions are large in the 2000s and the light-blue and green regions are large in the 2010s.) Live cattle futures are also very important and especially in the early 2000s. (The orange region.) Finally, observe that Colorado and the downstream boxed beef market are the softest contributor to price discovery. The overall assessment is that there is no link between the volume of cash trade and the amount of price discovery. The southern plains are the most important contributor when their volume was the thinnest. There is simply an ebb and flow process in which markets do most of the work. There is no market doing nothing and there is no market that is always doing all the work. This is the conclusion in my report to the AFBF.

The fourth graphic is the final measure of price discovery. And it is the measure that academics are settling on as the most comprehensive. The fourth measure is somewhat of combination of the information flow measure most used by agricultural economics and the relative market weights that measure the contribution to the equilibrium price – information shares – that the finance field developed. It is the most general measure.





In my mind this measure is so interesting in how boring it is. There are four USDA AMS region markets that contribute equivalently to discovering price. TX-OK-NM, Kansas, Nebraska, and IA-MN each

contribute just less than 20%. Colorado and the downstream boxed beef value each contribute less than 5%. And the live cattle futures market also contributes just less than 20%. The contributions are stable over time with the notable shock during the period where the market was understanding the impact of permanently higher feed costs on fed cattle prices. For me this is the most illuminating graph. There is no relationship between the volume of cash trade and price discovery. And there is no dominate market. (TX-OK-NM contribution falls right at the end but is compensated for by Kansas.) During the market shock the boxed beef value became much more important and the live cattle futures much less so. And we see the beef market become more important in the emerging over-supply relative to capacity that continues into the COVID period.

Price discovery over time is very stable. There are a number of regional markets that contribute. And there is no obvious relationship between the amount of cash trade and contribution to price discovery.

Price discovery is a human effort. Sometimes it is the bid/ask spread that is all the market needs. Sometimes a phone call. Price discovery is not like applying fertilizer to corn – that more results in more. Price discovery is a human action. For example, more and more time does not create better management. Sometimes the best managers talk and direct the least. Price discovery appears to be a similar endeavor.

(And why no COVID update? The research tools used require all price series. And Colorado is largely not available after 2019. Without price reporting in Colorado an update of the results cannot be conducted.)

Senator John Thune

You have raised concerns with the effect mandating cash trade may have on improving price discovery.

1. What recommendations do you have for improving price discovery and transparency for producers?

My research shows that price discovery in U.S. regional fed cattle markets is thorough and substantial. There is no region that does not do price discovery and that the cash markets are supported by the live cattle futures market, and to a more limited degree the downstream boxed beef market. Price discovery does not necessarily need improvement.

Much of what I understand about people being concerned over price discovery is that they were actually unhappy with the price levels they were seeing or the margins that packers were making. This is not price discovery and is price determination – this is not hair splitting – is recognition of the issue. The reason that packer margins were so large and fed cattle prices were lower than historically observed is the fundamental change in the supply and demand conditions. From the late-1970s until 2015 there was substantial excess capacity in the packing industry. Packers had the ability to slaughter and fabricate far more animals than were available. That changed in 2016 and in that year, following the expansion of the cattle herd the prior two years, supplies and packing capacity were actually in balance. Then from 2017 through 2021 the expansion continued and there were far more cattle than could be

processed by the available packing capacity in a 5-day work week – Saturday kills were required to process available supplies. And COVID disruptions only make this imbalance worse. Mandating cash trade will not change the imbalance. This is not a price discovery problem. This is a supply and demand problem. Requiring packers to buy more cattle in the cash market will not change this supply and demand conditions. Historical price relationships cannot be expected when the supply and demand conditions have fundamentally changed. There is not a price discovery problem.

Mandates will not improve price discovery. The research that I have conducted suggests very effective price discovery can be had with very little cash trade and also with substantial cash trade. There is not a simple threshold recommendation. Price discovery is a human effort in a marketplace. It can take very little effort to discover price.

Price discovery is a public good. But unlike other public goods the individuals that use the information but to not contribute to its production have a strong incentive to reengage in the market if the market price is incorrect.

There is also not a transparency problem. (My apologies for the repetition here but I am going to largely copy and paste my reply to a similar question from Senator Grassley.) Prices reported in U.S. regional markets and the national summary are the result of Livestock Mandatory Price reporting legislation. The prices that are reported are not a sample but are rather from the population of transactions – by the major packers. USDA AMS reports summary statistics for prices from every transaction. We don't have sample of prices. We have all of them. There is no sampling error and there are no substantial transactions that are not collected. We have the population and that is what is reported. Now every individual price is not reported but rather summary statistics are. Weighted averages are reported and ranges.

I have talked with many people regarding transparency and my takeaway from many of those discussions is that most people do not know what is reported nor the detail. Most people have not researched the USDA AMS website nor been to the data portal. Most people have no idea about the depth of information that is in the multitude of reports. They simply say, "lack of transparency" and move on. We have transparency in that every purchase that every major packer makes is entered into the database and is summarized. Every negotiated cash trade, every negotiated grid, every formula, and every forward contract transaction. What more do we need to know? We have prices from every transaction. There is no additional information that can be collected.

Or any discussion of lack of transparency might have to do with how the data are disaggregated. And similarly, the confidentiality rules that are followed. In the end these are legislative issues that are not addressed by mandates.

So as for my second point, I am uncertain as to my position on confidentiality. The economics is not clear. In one sense, each packer knows what they are paying for cattle and receiving for beef. The LMR data allows them to understand how they compare to all other packers as a group. I know this is done and I also know there are data analysis firms that sell this service. So, confidentiality may not be very important. Further, confidentiality rules are not enforced in many other asset markets. When I trade futures, options, and stocks then I see the price of that transaction reported to the marketplace. I see when my bid or ask is the effective price. So, economics assumes some level of price transparency that accompanies markets. But those asset markets are also very thick – there are a large number of

participants. The fed cattle market is Colorado, for example, is often not reported. That is because we have two major plants in the state and we have to have a different packer come into our region to procure. When cattle are plentiful then that will not likely happen. I would like to more often observe the Colorado price but do we want a policy that reveals to each exactly what the other is paying for cattle? It is very likely that cattle producers communicate that information in the trading process but to codify in price reporting services? I am less certain.

I am much more certain about the work of my colleagues at Kansas State University. And these works have to do with aggregation and disaggregation of the details in the data and are my first point. There have been two pieces of work to date that are useful and excellent. The first was regarding the expansion of USDA AMS reporting regions to include neighboring states. Doing this would result in more reporting of prices that were otherwise withheld due to confidentiality. I believe this work should be implemented – or discussed more to assess potential drawbacks. (How similar are the prices in the new region to the established region?)

The second piece of work has to do with the formula price reporting or the formula bucket. With price reporting, transactions are access as to if they are negotiated cash or if they are forward contracts? If transactions are either of those two then they go into those respective buckets. Anything not a cash trade or forward contract go into the formula bucket. The formula bucket therefore contains a lot. I would like to know what the valuations are associated with new product and substantial value-added programs. That versus formulas that are somewhat like the cash market – some bid and ask – but producers and packers don't what to set the market so they agree for something like "$2 over the practical top of the market." This is a formula transaction but it could be a cash trade. The rational is solid and impact is not problematic. The cattle and a little better than most so the producer wants a little more money and the packers sees the cattle are good quality and will pay a little more. But neither knows what the market price is for the week. My example is from the southern plains where these trades tend to be cattle a little better than most. And in the northern plains it is the cattle that are a little worse than most that are marketed this way – for a price something like "$2 under the price for the week."

We can learn more about the transaction data that are collected but there appears to be that a legislation decision needs to be made regarding confidentiality.

2. Do you think South Dakota should be added to a cattle marketing region?

Yes and no. It is my understanding that more cattle are fed now South Dakota now than when LMR was first adopted and the rules written. Therefore, it is a good idea to report more regions if more cattle are fed and marketed in that region. But the supplies of cattle in southeastern South Dakota can be rather substantial relative to packing capacity in the upper Midwest, especially in October. For example, including South Dakota with Iowa and Minnesota may result in lower prices compared to history. Further, including South Dakota is not need in terms of addressing the impact of confidentially on price reporting. I am unsure if prices in South Dakota would be reported if it was a region onto itself. There are likely more three packers that buy there but I am unsure of the volume – outside of the majors. So, I am assuming that South Dakota would be included in Iowa-MN reporting or might be included with in

Nebraska. There are no problem reporting cash prices from IA-MN and Nebraska so including South Dakota would not solve a problem. These questions that I have could be answered by USDA AMS.

The problem with reporting that I am most familiar with is that for Colorado. The fed cattle market price in Colorado was often not reported from 2018 through 2022. That is because we have two major plants in this reporting region and we have to have a different third packer come into our region to procure. When cattle are plentiful then that will not likely happen. I have seen research from Kansas State University faculty that suggests including Wyoming with Colorado substantially increasing reporting for a combined region. So, I do think Wyoming should be reported but that AMS should be asked about how reporting South Dakota would impact the price history.

I would like to thank the members of the U.S. Senate Committee on Agriculture, Nutrition, and Forestry for the opportunity to follow up on questions regarding this proposed legislation and its potential impact on cattle and beef markets.

U.S. Senate Committee on Agriculture, Nutrition, and Forestry
Legislative hearing to review S. 4030, the Cattle Price Discovery and Transparency Act of 2022, and S.3870, the Meat and Poultry Special Investigator Act of 2022
April 26, 2022
Questions for the Record
Dr. Seth Meyer

Ranking Member John Boozman

1. **What are the crucial elements of S. 4030 that Congress should consider before amending or voting on this legislation?**

I consider there to be two key elements of the legislation. First is the information gathering and reporting sections, targeted at improving transparency and market function by increasing information symmetry between producers and processors. Second are the sections that set and describe the process for implementing mandatory minimum purchase requirements that change how a portion of U.S. fed cattle are bought and sold.

With regard to transparency and market function, providing livestock producers with additional information can allow them to make more informed investment and marketing decisions. As long as the cost to processors is not onerous, the reporting requirements of S. 4030 can improve information symmetry between livestock producers and processors and improve overall market function. In order to make any expanded data available and useful to market participants, AMS must have and allocate the necessary resources to the publication of the data in an accessible format.

The second key portion of the bill defines and establishes, for obligated slaughter plants, a minimum amount of fed cattle that must be purchased under approved pricing mechanisms. Approved pricing mechanisms are defined as negotiated and negotiated grid purchases (currently defined by AMS under mandatory livestock price reporting) as well as purchases made at stockyards or through an approved trading system or platform. Currently, negotiated and negotiated grid purchases account for the vast majority of existing approved pricing mechanisms as defined in the legislation. The bill intends to set region-specific minimum levels of these approved purchase types, commonly referred to as cash trade, for obligated slaughter plants.

Regions will be established at the discretion of the Secretary of Agriculture. The extent of the impact on cattle markets, including before and after the expiration of the initial legislatively prescribed regional minimum purchase levels, are contingent on how USDA constructs the regions. It also depends on how both processors and cattle producers adjust in the short and long run to new constraints on cattle trading practices that are induced by S. 4030. While the legislation provides the Secretary of Agriculture wide discretion on continuing adjustments to region-specific minimum approved purchase levels, the legislation prescribes the establishment of the *initial* regional minimums. The legislation calls for the initial regional minimums to be established at "*(A) not less than the average*

percentage of negotiated purchases and negotiated grid purchases made in that covered region between January 1, 2020, and January 1 2022; and (B) not more than 50%."

In addition, another crucial factor to consider is the way in which S. 4030 obligates the minimum level of approved purchases. It does so at specific slaughter plants, instead of at the point in the supply chain where cattle are fed and sold, such as at feedlots or sales barns. Previous research on cattle market purchasing practices has relied on publicly reported data from AMS's Livestock Mandatory Reporting (LMR) system in which transactions are reported where cattle are fed or sold. In contrast, this legislation imposes minimum approved purchase levels on individual plants, which may or may not be assigned to an existing LMR region. Due to the confidential nature of AMS plant-level data, critical factors such as obligated plant location and the extent of differences in negotiated and negotiated grid purchases among slaughter plants (which are used to set regional minimums in S. 4030) are not publicly available but are instrumental to understanding the potential impacts. As such, the publicly available data that has been used for prior research on cattle market purchasing practices cannot be used to evaluate this legislation and so I am unaware of any research which appropriately examines the impacts of the proposed legislation.

Because of this lack of publicly observable data, no research has been able to evaluate a) the impacts of region formation; b) the variation in plant negotiated and negotiated grid purchases within those regions; and c) the desire of obligated plants to use stockyard and trading system purchases for compliance or other ways plants may adjust to the new regulation. As a consequence, the impacts of the legislation are uncertain. In particular, the Secretary is given wide discretion to establish regions and minimum approved purchase levels, and to change them over time. However, the use of a rigid formula to establish the initial minimum approved purchase levels, or changes in policy objectives are likely to create uncertainty for processors about future adjustments USDA may take. USDA's regulatory review will play a significant role in reducing this uncertainty, but the legislation prescribes a minimum level of approved purchases to start.

2. Are there efficiency gains that would be realized or lost in the cattle and beef supply chains that could be detrimental or beneficial to domestic and global demand for U.S. beef?

As previously indicated, implementation will determine the ultimate impacts of this legislation on cattle market efficiency and demand for U.S. beef. When considering demand, the legislation's impacts on price and product characteristics could influence domestic or foreign demand for U.S. beef—a high-quality product consumed worldwide. Changes to how cattle are transacted could increase processor costs. There is additional uncertainty in how any change in transaction types (toward more negotiated and negotiated grid purchases and away from alternative marketing arrangements) may impact coordination between livestock producers, feeders and processors, including for quality attributes including those attributes desired by consumer which reflect production practices.

Finally, under S. 4030 the obligation to meet region-specific minimum approved purchase levels falls on individual plants. Consequently, some plants may not be obligated to change their purchasing behavior (or to do so minimally) under the legislation while other plants, those below the established minimum, may have to change their cattle purchasing behavior to varying degrees; for some plants the change could be substantial. The changes induced by S. 4030 to negotiated and negotiated grid purchases for specific plants could represent losses in efficiency to beef supply chains and markets. Cattle feeders and cow-calf producers share in the benefits or losses in efficiency and improvements in price discovery as well. The cost/benefit impacts remain highly dependent on the flexibilities afforded to the Secretary in setting minimum purchase levels and whether or not plants develop alternative purchasing options in response to the legislation.

3. Are there any economic tradeoffs for potentially lost efficiency gains and how would you quantify those tradeoffs?

If this legislation is enacted, I would want to explore the following questions related to economic trade-offs through the rulemaking process:

a) What (if any) are the costs to obligated slaughter plants of switching to their next most preferred purchase practice among the approved pricing mechanisms.
b) What (if any) are the benefits to beef producers from this shift to approved purchase mechanisms.
c) How will obligated slaughter plants margins respond to the changes in (a) and (b)
d) How this may or may not change wholesale and consumer pricing of beef or influence the market for trait preserved products.

Additional evidence and information are needed to answer these questions and to better understand the economic tradeoffs and changes in efficiency in these markets. Existing literature evaluates the current status of cattle market price discovery and prior legislation such as "50-14", including the costs and benefits of establishing minimum cash trade levels. Other research examines the costs and benefits of shifting transactions from AMAs to negotiated or negotiated grid transactions. This literature cannot be directly applied to evaluate S. 4030's impacts on cattle markets given the distinct mechanisms it uses to change the way cattle are bought and sold in the U.S. and because so much of its impacts are contingent on confidential plant specific data and the details of implementation.

4. Are there any implementation concerns that could significantly alter the performance of S.4030?

To illustrate the complexity of determining the legislation's impact on cattle markets, my office conducted an examination of the confidential AMS weekly livestock mandatory price reporting data from January 1, 2020 to December 31, 2021 (the reference period in the legislation) to mimic features of S. 4030. OCE adhered to the intended principals of the legislation, by creating ten distinct configurations of five to seven cattle trading

regions. OCE then calculated the share of purchases made through negotiated and negotiated grid transaction types for each region in these ten configurations to estimate the regional minimum level of negotiated and negotiated grid transactions required by S. 4030. I refer to these two transaction types and their share of all transactions as "cash trade" hereafter. The *lower* of the reference period regional cash trade share or 50%, as provided in the legislation, was applied as the minimum cash trade value in all regional configurations as specified in the legislation. Other complying transaction types were assumed to be de minimus in the reference period, so they are not included in our analysis.

The ten regional configurations we constructed are all consistent with the legislation's intent to "reasonably reflect fed cattle purchase practices". In some cases, regions dissect state boundaries or conform to the different topographical and climatic regions in which cattle are produced. Each region included at least three companies which ensures that regions conform to AMS confidentiality and disclosure requirements.

Based on OCE analysis, the current percentage of U.S. cattle transacted as cash was calculated to be 28.3% nationwide. This legislation would, by design, increase that number. According to our calculations of the 10 different region configurations S. 4030 would increase cash trade to at least 33.8% and up to 36.6% nationally. My understanding of current literature suggests that fed cattle markets, broadly speaking at a national level, have effective price discovery under current conditions. However, this literature does not determine at what level would price discovery become problematic or when/if regional issues in price discovery may arise as a result of low cash trade. However, the literature acknowledges the importance of price discovery as a public good and the need for continued monitoring and analysis.

OCE then summed the number of fed cattle impacted by the minimum cash trade requirement across regions within each of the 10 regional configurations. I estimate that approximately 5.5% to 8.3% of all U.S. fed cattle, or 2.4 to 3.6 million head over the two-year reference period, would have been required to change to cash transactions under the proposed legislation during the reference period. I also estimate that, under an assumed weekly compliance window, all obligated plants would have been impacted by the legislation's minimum cash trade requirement at some point during the reference period, regardless of which regional configuration used. Some plants are impacted, more than others depending on the week of compliance and regional configuration imposed. It's important to note that establishment of alternative regions with different impacts is possible.

I found substantial variability in purchase shifts needed to achieve the minimum cash trade level specified in S. 4030 across individual plants and companies within and across regions and regional configurations. Because there is significant variability in the percent of negotiated and negotiated grid transactions across plants, even within a narrow geographic area, some slaughter plants in major cattle slaughter regions will likely be required to make large changes in contracting under S. 4030, while others may be required to make minimal changes. Only some plants would have to substantially

increase their approved purchases and the changes in purchase types would, by design, fall unevenly across plants. It is this pool of cattle and the distribution of them among obligated plants that would need to be the focus of any analysis of the legislation's impacts.

Finally, OCE evaluated the impact of an across the board 50% minimum cash trade requirement for all regions. A 50% minimum cash trade requirement for all regions is possible under S. 4030 as it is currently written. Based on OCE analysis, this minimum cash trade level would require that 10.9 million (or 25%) cattle, over the two-year reference period, would need to shift to negotiated or negotiated grid transaction types.

While the OCE analysis provides new information about the potential impact that S. 4030 might have on fed cattle purchase practices, actual impacts will depend on how the final regions are defined and how the regional minimum is calculated and implemented.

5. **What benefits, costs, unintended consequences, and uncertainties can you identify with S. 4030 and how would you quantify these elements?**

Potential drivers of gains or losses that accrue to cattle markets under this legislation are highlighted in the previous responses, but do not reflect the full range of possible impacts, positive or negative. For example, there are additional uncertainties because of the possibility that new, alternative purchase practices may be developed in response to this legislation if implementation allows. This means that the estimates of benefits and costs associated with shifting cattle purchases to approved purchase practices may be moderated by new, yet to be known alternative purchase options. Alternatively, given the fixed period of compliance for each plant in the legislation, it may also be beneficial to assess similar compliance time periods to understand if such requirements induce different patterns of behavior change over the compliance period or if they induce new volatility into cash cattle markets. Further, the impact on the quality of cash reporting data, expansion decisions of processors into states which currently do not have a plant but would now potentially face a minimum cash trade requirement and the potential impact on changes to seasonality induced by a fixed minimum cash trade are among uncertainties that could be explored.

6. **All academic analyses have reviewed the impact of S. 4030 using aggregated regional-level data. After reviewing plant-level cattle transactions, what do you estimate to be the economic impacts and implications for the development of regions, regional mandates, or plant-level mandates? Will this disproportionately impact certain plants or certain regions of the U.S.?**

The way in which regions are constructed affects the quantity of cattle impacted by S. 4030. USDA will have to carefully define regions that respect state or county boundaries or climate and topographical characteristics, all while ensuring at least three companies (not just plants) are represented in each region. This latter constraint will ensure that regional minimum cash trade levels do not jeopardize the confidentiality of a single company's plant-level transaction data. Not only does this protect the processor, it helps

prevent processors from colluding on prices, which could seriously harm cattle feeders and producers.

In conforming to these constraints, USDA will also have to define regions to ensure there are not disproportionate impacts on particular localities. In some of our scenarios, nearly 11% of cattle traded were impacted by the legislation in one region, while in another region only 0.4% of cattle were impacted. These types of disparities may change the relative competitiveness of certain cattle producing regions in the country, in turn causing unintended economic harm to processors and producers in those regions.

Finally, how the legislation impacts specific plants in the short term is based upon the setting of regional minimum purchase levels and how each plant responds to them. In conforming to the law, plants may develop new purchasing contracts or strategies that could impact cattle feeders or producers in yet unknown ways or could enhance or inadvertently erode cash reporting data quality.

