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FACT SHEET

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BEEF FUTURES TRADING

Futures trading of live beef cattle began November 30, 1964, on the Chicago Mercantile Exchange. This development requires farmers and businessmen to refresh their understanding of what futures marketing involves and how it applies to the marketing of cattle. This fact sheet provides some of that background information.

The Minnesota cattle feeder finds himself in the following kind of situation each time he starts a new feeding operation.

He is interested in buying, say 23 yearlings (weighing 650 pounds) priced at $24 per hundredweight (cwt.) in October. He wants to use his feed, labor, and equipment over the winter and spring months to finish these animals to slaughter weight. From experience he estimates these feedlot costs at about $90 per animal to cover feed, labor, equipment, and interest and also provide a reasonable return on capital invested.[1] His cost calculations look like those in box A of diagram 1.

Diagram 1. Beef feeder cash transactions

A	**October**
Buys yearlings	
23 head × 650 lb. each × 24¢ =	$3,588
Estimates feedlot costs	
23 head × $90 =	2,070
Total production cost	$5,658
Estimates needed slaughter price[2]	
(1) 23 head × 1,100 lb. (choice steers) =	25,300 lb.
(2) $5,658 (total cost) ÷ 25,300 lb. =	22.36¢/lb.
B	**June**
Sells 23 choice steers (1,100 lb.) at ??¢	
If price is more than 22.36¢ = profit	
If price equals 22.36¢ = covers all costs	
If price is less than 22.36¢ = loss	

The cattle feeder then calculates what slaughter prices must be if he is to cover the $2,070 feedlot costs as well as the original yearling purchase. If he intends to feed out the animals to 1,100 pounds he will cover all production costs if his slaughter steers sell in June for $22.36 per cwt.

The cattle feeder, knowing this information, will then review outlook information to estimate slaughter prices he can expect in June. If price prospects are $22.36 per cwt. or more he will probably make his investment and begin the feeding operation. If his price expectations become a reality he will recover the purchase value of the yearlings and the $2,070 or make an extra profit. If he was too optimistic he will suffer a loss (see box B of diagram 1).

Several times in the past few years prices of slaughter cattle have been below farmers' expectations. Unable to forecast the direction and magnitudes of price change, many cattle feeders have incurred losses despite their technical and managerial efficiency.

Risk of loss by price change is basic to many aspects of agricultural production and marketing. Nevertheless, for some commodities, it is possible to shift most of this risk to people not directly involved in handling the product. This can be done through futures market transactions.

The Futures Market

The futures market does not deal in physical commodities. Instead it deals with promises to deliver or receive a commodity at some future time. These promises are made in the form of a legal "contract." Futures contracts are bought and sold on an organized market in much the same way that stocks and bonds are exchanged in the financial markets. The futures contract always specifies the quantity and quality of the product to be delivered and the place and time at which it will be delivered.

The people who deal on the futures market are called "speculators" or "hedgers."

Speculators are those interested in dealing with the futures contract itself for the purposes of making short-term financial gain as the prices of futures rise and fall. They accept the price risk.

Hedgers, by contrast, are people who are interested in dealing with the futures contract for the purpose of avoiding risk of loss by price change.

Hedgers are generally people who have possession of a commodity and wish to (1) store it, (2) transport it, or (3) perform additional services upon it before resale. For example, a local grain elevator will generally perform the function of storage before sale. In practice he attempts to shift price risk from himself to the speculators in the grain market by means of the hedging process. Thus, he eliminates the risk of losing his storage margin because of price change over time.

What Is Hedging?

Hedging is a process whereby a purchase or sale on the cash market is countered by a simultaneous and opposite purchase or sale in the futures market. This operation has been quite common in such commodities as food and feed grains, eggs, oils, cotton, wool, lard, and pork bellies.

In a case involving a country grain elevator, the elevator operator will purchase grain and store it until some future time, wishing to make profitable use of his storage facilities. The elevator operator is uncertain of what the price of this grain will be in the future. To avoid possible loss by price change during the storage period elevator operators will "sell" (contract to deliver his stored grain in some future month) a futures contract on that grain in the futures market.

Futures prices normally exceed cash prices by the storage, transport, or processing costs between the day of cash purchase and the future delivery month. If the elevator operator "sells" a futures on his grain, the futures price he will receive includes the present cash price plus the storage cost that would be added before the future delivery month. He then may do two things: (1) he can allow the futures contract to mature and deliver on it, or (2) he can "buy" back an offsetting futures contract before maturity and sell on the cash market.

Futures prices and cash prices will be close to the same amount in the delivery month. The price levels are not important to the elevator operator so long as they differ only by storage or transport costs. No matter what hap-

[1,2] In addition, the feeder calculates his marketing costs. These vary by his location relative to the market outlet he wants to use.

pens to the price of cash grain as delivery month approaches, the elevator operator has made his storage cost differential and has also protected himself from risk of loss by price change. At the same time, however, he also has "protected" himself from chance of any price gains that he would have made if he had not hedged.

This hedging process may take on different forms, may be valuable to different people for different reasons, and may cover only a few days or several months in duration.

The futures market is now dealing in contracts to deliver live cattle. Within a short period the futures market may also be employed in the trading of beef carcasses.

Application to Beef Marketing

The announced trading unit for the beef futures market will be 25,000 pounds of steers, live weight basis. The standard contract specifies delivery of (1) steers grading choice or better, weighing 1,000 to 1,150 pounds with estimated yield requirements of 61 percent; or (2) steers grading choice or better, weighing 1,151 to 1,300 pounds with 62 percent estimated yield. Tolerances and substitution possibilities are outlined in the contract details.

The initial contracts call for delivery in April, June, August, and October. The basic delivery point is the Chicago stockyards. However, delivery can also be made at Omaha at a differential of 75 cents per cwt. below the Chicago price.

Trading in beef futures requires a margin typical of other futures markets. The initial margin requirement deposited with the brokerage firm has been set at $500 (Chicago) per trading unit. This deposit is used by the brokerage firms to maintain margin requirements specified by the futures exchange. The maintenance margin varies but may be figured at about $300 per trading unit. This means that if the market position of the hedger becomes less favorable (future price increases), the remaining $200 is used by the broker to rebuild margin requirements with the exchange clearinghouse.

How a Cattle Feeder Could Hedge

Cattle feeders are potential hedgers in the beef futures market; they hold an inventory of cattle for future sale. A cattle feeder could sell a contract for future delivery of cattle—either at the time feeder cattle are purchased or at some later date. A market speculator would buy this contract, agreeing to take delivery of the cattle (if the seller chose to deliver) during the delivery months.

To illustrate, let's continue with the first example where a cattle feeder buys 23 yearlings. Recall that he would need $22.36 per cwt. to cover the yearling purchase plus all feedlot costs. Now let's see what he could do by using the futures market to hedge his position.

If in October the June beef futures are selling at $22.36 per cwt. (see box C in diagram 2) he could assure himself of favorable returns on capital and labor if he decided to hedge. By selling a June futures contract he assures himself of a price of $22.36 next June. He also obligates himself to *either* (1) deliver the number, weight, and quality of cattle specified in the contract (with allowable substitutions) at $22.36 before the contract expires *or*, as is true in nearly 99 percent of grain hedges, (2) to buy an offsetting contract of the same futures month just before maturity and at the then current market price (see box D in diagram 2 below).

Diagram 2. Beef feeder cash and futures transactions

Cash transaction	Futures transaction
October	
A Buys 23 yearlings (650 lb.) at 24¢	**C** Sells June futures contract (one unit) at 22.36¢[3]
June	
B Sells 23 choice steers (1,100 lb.) at 21.00¢ 22.36¢ 24.00¢	**D** Buys June futures contract (one unit) at 21.00¢ 22.36¢ 24.00¢

Normally, the respective cash market price and the futures market price in the delivery month will be very close together (compare boxes D and B, diagram 2).

For example, consider three different price situations in June: (1) where price expectations were realized (June cash price was $22.36), (2) where prices were lower than expected (June cash price was $21.00), and (3) where prices were higher than expected (June cash price was $24.00). Assume in each case the cattle feeder has hedged by transacting in the futures market. What would be the outcomes?

1. If choice cattle prices in June are at $22.36 the feeder would be in the same position as he would have been without hedging.

2. Where choice cattle prices are $21.00 per cwt. in June, he would have lost 1.36 cents per pound in his feeding operation if he had not hedged. By hedging, however, he would cover his feeding costs by selling a June futures in October (at $22.36). The cash and futures transactions in June would offset one another.

3. If choice cattle prices in June are $24.00 per cwt., he would have gained 1.64 cents per pound had he not hedged. If he did hedge, he would again assure himself of $22.36 in October and the June cash and futures transactions would cancel out any gains in that month.

Cost Considerations

Hedging the cattle feeding operation would include additional costs that must be considered:

1. Brokerage fee—cost of professional selling and buying services. Typically, this would involve about $36 for the entire hedging operation.

2. Inspection and yardage—If livestock are delivered these costs may have to be covered by the feeder.

3. Interest on margin deposits—where the feeder must borrow to provide the margin required by the broker, some additional interest charges would be incurred.

Conclusion

Futures trading of live cattle will not solve all of the U. S. cattle feeder's income problems. But the potential for hedging the risk of price change should bring him some price stability and reduction of uncertainty.

There still remains the question of whether futures trading will work for live beef cattle. Some argue it will not, others maintain great hope for it. A proper evaluation of the cattle futures market can come only after several months of market activity have been registered.

If you are interested in any further information regarding beef futures trading, you should contact either the Chicago Mercantile Exchange or local brokers dealing in the commodity market. Your county agent also has a copy of beef futures regulations.

[3] This price does not take into account cost of transporting the cattle to the delivery point specified in the contract.

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