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CORNHUSKER ECONOMICS

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Department of Agricultural Economics
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Market Report	Yr Ago	4 Wks Ago	7/10/09
Livestock and Products, Weekly Average			
Nebraska Slaughter Steers, 35-65% Choice, Live Weight	98.51	81.79	81.61
Nebraska Feeder Steers, Med. & Large Frame, 550-600 lb.	130.65	112.32	116.75
Nebraska Feeder Steers, Med. & Large Frame 750-800 lb.	117.85	102.04	105.22
Choice Boxed Beef, 600-750 lb. Carcass	173.34	139.78	137.81
Western Corn Belt Base Hog Price Carcass, Negotiated	73.31	55.76	57.76
Feeder Pigs, National Direct 50 lbs, FOB	28.38	45.00	39.62
Pork Carcass Cutout, 185 lb. Carcass, 51-52% Lean	80.36	56.21	56.12
Slaughter Lambs, Ch. & Pr., Heavy, Wooled, South Dakota, Direct	113.00	115.00	103.00
National Carcass Lamb Cutout, FOB	278.99	258.07	257.01
Crops, Daily Spot Prices			
Wheat, No. 1, H.W. Imperial, bu.	7.66	5.57	4.52
Corn, No. 2, Yellow Omaha, bu.	6.34	3.99	3.04
Soybeans, No. 1, Yellow Omaha, bu.	15.70	12.42	10.35
Grain Sorghum, No. 2, Yellow Dorchester, cwt.	10.68	6.54	5.02
Oats, No. 2, Heavy Minneapolis, MN , bu.	4.03	2.41	2.15
Feed			
Alfalfa, Large Square Bales, Good to Premium, RFV 160-185 Northeast Nebraska, ton.	190.00	*	*
Alfalfa, Large Rounds, Good Platte Valley, ton.	77.50	*	*
Grass Hay, Large Rounds, Premium Nebraska, ton.	85.00	*	*
Dried Distillers Grains, 10% Moisture, Nebraska Average.	183.00	132.87	97.50
Wet Distillers Grains, 65-70% Moisture, Nebraska Average.	68.00	49.87	39.50

*No Market

All buyers and sellers of futures contracts have to post margin money through their brokers to act as a performance bond. This margin money financially secures their position and protects the party on the opposite side of the transaction from default. Generally, the margin requirement for a futures contract is established at a level close to the maximum amount that any short or long trader could lose in any one-day trading period because each day the account is "marked-to-the-market" and the daily gain or loss is reflected in the account balance at the end of the day. The maximum amount of loss is determined by the daily price limit. For example, the daily price limit on the Chicago Mercantile Exchange (CME) Group Live Cattle futures contract is $3.00/cwt. So, for the 400 cwt. contract, the largest increase in contract value in a one-day period would be $1,200 (which would be a loss for the short trader), and the largest daily decrease in contract would be $1,200 (which would be a loss for the long trader). The margin requirement is also established according to the volatility of the futures contract price. The more volatile prices are, the more likely the daily price limit will be reached, and thus the margin requirement increases.

The daily price limit on the CME Group Live Cattle contract increased from $1.50/cwt. to $3.00/cwt. at the end of 2003 following the first U.S. case of BSE, which generated limit down futures prices for several days in a row. Not only has the price limit increased, but the volatility of futures prices has increased over the years. As a result, CME Group has increased initial and maintenance margin requirements for hedgers and speculators to reflect these market changes. The initial margin requirement (IMR) is the amount of money that must be posted in order to initiate a futures trade. The maintenance margin requirement (MMR) is the minimum amount of money the margin account can have on a daily basis to maintain the position. Typically, hedgers (often called commercials), have lower margin requirements

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than speculators (or non-commercials) because they own the underlying physical commodity. Figure 1 shows that the initial margin requirement (IMR) for hedgers and speculators has increased from $475 and $642, respectively, on January 1, 2000 to $1,200 and $1,620 on October 8, 2008. Granted, at times over these nine years the IMR and MMR have declined, but generally they have increased substantially in recent years.

The increase in the margin requirements can be concerning to commercial hedgers if it limits their access to the futures market, thus restricting their risk management alternatives. Cattle feeders are one such type of commercial hedger. Cattle feeders looking to hedge a future sale of fed cattle would take a short position in the CME Group Live Cattle futures contract and post the IMR (currently $1,200 per contract). Given that the 400 cwt. contract would be worth a total of about $32,000 (at a price of $80/cwt.), the $1,200 margin requirement is relatively small and makes this a highly leveraged position (IMR is about 4 percent of value). However, it is less leveraged now than in 2000 when, for example, prices were closer to $70/cwt. (contract value of $28,000) and the margin requirement was $475 (IMR was less than 2 percent of value). Losing this amount of leverage on an instrument that hedges about 35 head of fed steers is concerning for hedgers as credit availability shrinks due to equity losses in the cattle feeding sector and may be limiting hedging among some producers.

Using Commitment of Traders data reported by the Commodity Futures Trading Commission, we examined the correlation between the margin requirements for commercials and non-commercials with the net positions held by commercials and "non-reportable positions traders" (smaller traders, either hedgers or speculators, that buy or sell fewer than 200 contracts). A strong negative correlation would suggest that increases in the IMR or MMR lead to decreases in the number of net long positions taken by commercials or small traders, or more short positions (i.e., that they were hedging more cattle). Results of that analysis reveal very little correlation. The correlation between the IMR and the positions held by commercial traders (hedgers) is 0.04273 ($P>0.39$). Thus, there appears to be little relationship between higher IMR and the number of short positions held by commercial hedgers. A similar small and statistically insignificant result was observed between the IMR for hedgers and the positions held by small traders. However, the IMR for speculators appears to be more correlated with positions held by non-commercial speculators, with a correlation coefficient of -0.10 ($P<0.05$). This indicates that speculators tended to be short one-tenth of one additional futures contract for each one dollar increase in the IMR.[1] This potentially could make hedging for short traders more difficult because fewer long traders would have been in the market during this time period. Because the MMR closely follows the IMR, similar results are obtained for the correlation between the MMR and positions held by commercials, non-commercials and small traders.

It also appeared that increases in the margin requirements had very little impact on volume or open interest in the CME Group Live Cattle futures contract. Volume is the total number of futures contracts traded in a day and is an indicator of the level of intensity in the market. Open interest is the total number of contracts outstanding at a particular point in time and measures traders commitment to be in the market. If increases in the IMR and MMR were having a negative impact on futures transactions, it might be manifested in decreases in volume and open interest. Our analysis found little correlation between changes in margin requirements and immediate changes in volume and open interest. The correlation between the IMR (for both hedgers and speculators) and volume is very small and statistically not different than zero ($P>0.87$). Similarly, the correlation with open interest is small and statistically insignificant as well ($P>0.62$). So it doesn't appear that increases in the IMR have reduced volume and open interest in the CME Group Live Cattle futures contract.

In conclusion, these results suggest that there is little correlation between the positions held by commercial hedgers, non-commercial speculators and small traders and the IMR and MMR to trade the CME Group Live Cattle futures contract. Increasing the margin requirement might be concerning to some commercial hedgers if it limits their ability to fund margin accounts and maintain hedge trades in the market. While that could happen for individual traders, it doesn't appear to be the case for the entire market.

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[1] This relationship, while statistically significant, does not imply causation, only that there was, in this case, a negative relationship between the variables during the time period of the study.

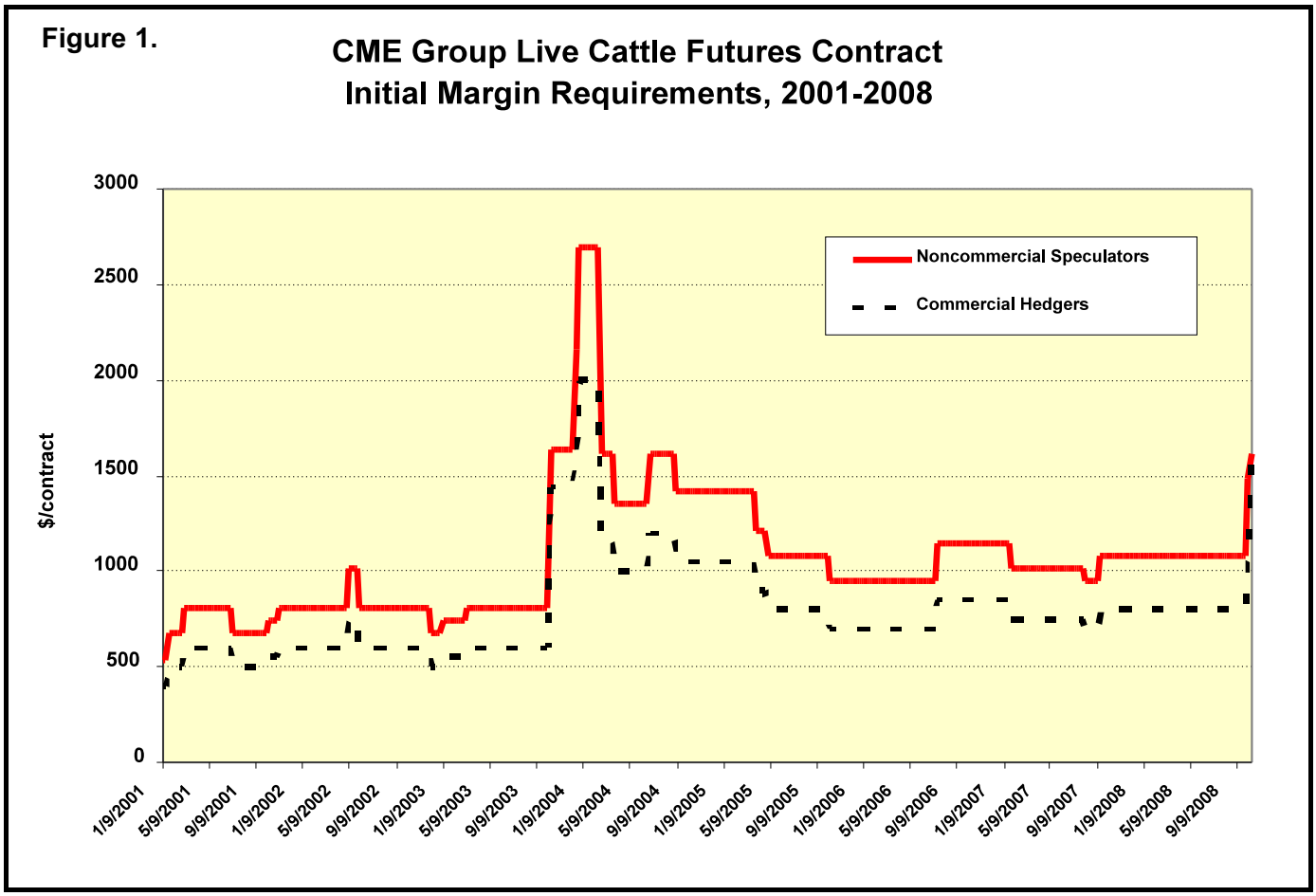

Table 1. Correlation Coefficients Between Margin Requirements and Positions Held by Traders, Volume, and Open Interest

	Positions Held By Commercial Hedgers	Positions Held By Non-commercial Speculators	Positions Held By Non-Reportable (Small) Traders	Volume	Open Interest
IMR[a] Hedgers	0.04273 (0.3935)[c]	-0.10535 (0.035)	0.07023 (0.1604)	-0.0008 (0.9873)	-0.02436 (0.6267)
IMR Speculators	0.05292 (0.2905)	-0.10298 (0.0393)	0.05574 (0.2654)	0.00798 (0.8734)	-0.01576 (0.753)
MMR[b] Hedgers	0.04273 (0.3935)	-0.10535 (0.035)	0.07023 (0.1604)	-0.0008 (0.9873)	-0.02436 (0.6267)
MMR Speculators	0.04273 (0.3935)	-0.10535 (0.035)	0.07023 (0.1604)	-0.0008 (0.9873)	-0.02436 (0.6267)

[a] IMR = Initial Margin Requirement

[b] MMR = Maintenance Margin Requirement

[c] Number in parentheses is P-value (if $P<0.05$, then the correlation is statistically different from zero)