



Risk Assessed Marketing

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Adverse Selection on the Livestock Risk Protection Contract¹

Adverse Selection. The Livestock Risk Protection (LRP) contract is based on yesterday's market and premium cost. If the market closes down today, producers will be able to purchase their LRP coverage not based on today's lower market price but yesterday's higher market price and associated premium costs. Therefore, LRP may meet the technical definition for adverse selection but it is very limited because of the length of time until expiration of the contract.

This is similar to the situation with the loan deficiency payment that is based on a one day lag in the market. Farmers have traditionally made LDP claims on days when the market moves in their favor based on the previous day's market. However, in the marketing loan program for cotton there is a one week lag in the prices. Also farmers can take out the loan and effectively have a 60 day window to repay the loan and take advantage of a market that is moving in their favor. Those are certainly much longer time lags than available in the LRP contract which only has a single day lag. Under normal market circumstances the one day lag in the LRP is not a great advantage for producers. Other than an academic definition of adverse selection this one day lag is of little concern to RMA or the insurance industry.

Adverse Selection with Catastrophic Price Move. One scenario that would change this viewpoint is a catastrophic price event in the cattle market. Examples might include: a disease outbreak such as "mad cow disease" or a bio terrorism act that would scare customers away from purchasing beef, limit exports and create other negative market impacts. Under this catastrophic market scenario one would expect the market to lock limit down if it is open when the event happens.

The question then becomes, if this were to occur, will producers be able to lock in LRP coverage and premium costs based on the previous day's market close before the current catastrophic event was bid into the market? It is also possible the catastrophic news might be revealed after the Chicago Mercantile Exchange (CME) market closes. Under current procedure producers would

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have from the CME market close until 8:00 p.m. central standard time to purchase their LRP coverage by submitting a Specific Coverage Endorsement (SCE) contract. In the event of a catastrophic market event it is possible RMA would shut off sales. However, there is some question how quick this might occur and producers might be able to get their SCE accepted before the system is shut off. It is unclear if there is a formal procedure for LRP offers following a lock limit down CME price move. Presumably in the event of a lock limit down move there would be no SCE's offered the next day because the previous day was a lock limit down price move.

Even without this limited adverse selection window producers may still want to consider an LRP contract just to protect themselves against such a catastrophic event. Because producers can buy coverages with higher levels of deductibles for lower premium costs, there may be producers willing to buy LRP just to protect against such a catastrophic event. If one buys an LRP contract with a high deductible, then if such an event were to occur; the LRP contract would provide a significant indemnity payment.

From the "other side of the desk" this is also a major concern of private insurance company's and reinsurers. Unlike crop insurance where one gets geographic spread on the risk because not all yields will be a 100 percent loss, every LRP contract sold on the same day that is currently held will be paid. The losses could be significant because all contracts will have claims unlike the crop insurance contracts where only some contracts, even in the most severe drought, will have claims. Even those crop insurance contracts that do have claims will not all be 100 percent claims. For a given coverage level, the LRP indemnity payment will be the same for all buyers. It is likely LRP contracts will generate underwriting losses over 100% or 100% underwriting gains. This is very different from other forms of insurance.

Recommendation to Producers. A reasonable management strategy certainly would be to submit an application for an LRP contract. This application through one's insurance agent will establish the producer's eligibility to attach coverage with the SCE later. This will allow producers to be in a position to put the coverage on should market conditions change or even potentially get an SCE approved after a major negative market announcement such as a disease outbreak. Because markets move so quickly, if producers don't already have the policy established it is unlikely they will have time to have the policy approved and in a position to submit the SCE in the event of a major negative market news event.

There is no cost for establishing the policy and one is only committed for premium after the coverage is attached by submitting the SCE. Therefore, there is little reason for cattle producers to not contact their crop insurance agent and establish the policy that makes them eligible to submit the SCE in the event that one becomes concerned about the price risk.

Clearly, the other approach is to create a written market/risk management strategy for livestock as many do with other commodities. The LRP could be a part of a written risk management plan that would protect against major losses in the cattle market. LRP will also leave the upside open so that if prices go higher producers will capture those returns less the premium they paid for the LRP contract.

Unless RMA changes the underwriting rules, every eligible livestock producer will likely find it to their advantage to submit an application for an LRP contract. There is no cost for the policy but producers will be able to move quickly in the event of a market change. It may even allow producers to take advantage of a catastrophic price move. Only when the **SCE has been**

accepted does the producer have coverage and owe premium. Producers need to get a LRP policy now to be in a position to execute an SCE if they see a change in the price risk.

Underwriting Issue. From the RMA/insurance industry “side of the desk” there appears to be an underwriting problem if there is a catastrophic price event caused by a mad cow disease case in the USA or a bio-terrorism attack on the beef supply. If the CME market locks limit down then producers may be able to purchase a SCE based on the previous day close. The bad news could also occur after the CME closes. Currently RMA has no public policy on how to handle such an event.

Most of the Livestock Gross Margin (LGM) sales occurred on the last day of the sales period based on a decline in the hog market. LGM was only in Iowa so the exposure is relatively small. The LGM has been reduced from a 2 week purchase window to a 2 day window. However, RMA did not shut off sales on the last day of the contract but some companies did reach their company underwriting limit and that did shut off sales.

“Needed” Underwriting Rules. Based on this history it is reasonable to conclude RMA needs two more underwriting rules on LRP:

1. RMA would shut off LRP sales if the CME lock limits down.
2. RMA would limit daily LRP sales as a percentage of the total book

A daily sales limit would also spread risk over time because it would prevent a large percentage of sales on a single day like happened with LGM. There is no geographic spread on the risk as there is with the yield risk on crops. The only spread is over time but that spread is lost if most of the sales occur on a single day. The daily limit would also put a limit on sales if bad news came after the CME closed.

Why Point Out the Underwriting “Hole”? At a recent conference producers raised the question why is the author calling attention to this underwriting issue? In order for the current private/public insurance program to work rates and underwriting rules need to be “fair”. If the underwriting rules allow for producers to adversely select then private companies and their reinsurers will drop out of the market. There was a recent consolidation of two companies and the sale of another, so there are fewer companies in the crop insurance business. Insurance contracts need to work for the producers, private insurance companies and RMA. If one side has an advantage then in the long run (probably two years in the private market) then the other side will drop out of the market. Either producers will not buy or companies will not make the insurance offer. If this were a total government program these underwriting issues may not be a problem if taxpayers were willing to support the losses.

Limitations on LRP. Currently the LRP is not available on heifers or breeds containing significant amounts of Brahma or dairy genetics. The other limitation on the LRP contract is that producers are not allowed to take an offsetting position in the futures market. For example, they buy an LRP contract on their cattle and then write a put option on the CME. Clearly, this is probably an unenforceable underwriting rule simply because producers could write the put option on their cattle (heifers?) that have no SCE coverage or they could simply open a speculative account.

Probably this underwriting rule effectively prevents marketing consulting firms from marketing their service to producers on how to extract the subsidy from the LRP contract. Remember this is

suppose to be a risk management protection tool that will reduce the negative effects on producers' revenues caused by declining prices. In addition, most lenders who are financing cattle want the protection. They don't want producers simply extracting the subsidy because the subsidy is a very small amount of the total dollars at risk in a livestock operation.

“Unnecessary” Underwriting Rules. Because this is an index product and the basis (difference between cash price and futures price) risk is retained by the producer there is no reason not to insure heifers and other breeds. During the recent conference one cattle producer raised the question how much Brahma or dairy “blood” is too much? Who will determine if the Brahma or dairy genetics in the cattle exceeds the LRP limit?

Based on these current LRP policies, RMA probably does not need the follow underwriting rules:

1. Remove the limit on LRP sales for heifers, Brahma or dairy breeds.
2. Remove the restriction on taking an offsetting board position because the rule probably cannot be enforced.

No Moral Hazard. There is little chance of moral hazard in the LRP contract simply because the contract is not tied to the individual's production level or price received. The payment is triggered totally on a market decline and that will affect everyone who has bought an LRP contract. For example, if 50 people purchased a 30 week contract today and the market declines by \$10 below the guarantee, they would all receive a \$10 indemnity payment assuming they bought the same coverage level.

The number of head and the target weight are simply a way to determine eligibility for the contract. RMA does not want non-livestock producers purchasing the LRP contract because this is a subsidized product. Therefore the calculations used to determine the weight and head of cattle are simply to verify LRP purchasers actually owned that number of cattle and approximate weight certified in the application.

Market for LRP. This contract may be very attractive to certain classes of producers over a CME feeder cattle put contract even if there is no adverse selection. Producers may buy LRP only on the number of head they actually own and that may be fewer head than would be required for a CME contract. For example, if a full CME feeder contract represents about 67 head of 750 pound steers but the producer only has 50 steers then he/she would be able to purchase LRP on just the 50 steers.

Potentially this is a very large market because Kansas is an important beef cow/calf state. During 2002 there were 28,000 beef cow/calf operations in Kansas that produced 1.51 million calves. The bulk of these calves came from relatively small operations. During 2002, approximately 48 percent of Kansas calves were produced on farms that had a beef cow inventory of less than 100 head, and virtually all operations had fewer than 500 cows (table 1). This is the segment of the market that is most likely to purchase an LRP feeder cattle contract because the flexible contract size matches their operation as opposed to an option on feeder cattle futures that represents roughly 67 steers weighing 750 pounds. The LRP also allows producers the flexibility to buy incremental price protection on a few head at a time to secure an average minimum price. This is not a readily available alternative for small cow/calf operations using the Chicago Mercantile Exchange (CME) traded options.

LRP is an insurance contract because once purchased it can not be cancelled as can be done with a put option. Because it is an insurance contract with a specified insurance length it will be attractive for lending institutions who are lending money on cattle serving as collateral.

Because LRP is an insurance contract there is also no question that it is a tax deductible expense and would be included as a farm expense item. Options are also a tax deductible expense although some trading strategies sometimes are not considered deductible expenses.

One of the attractive features of LRP is that producers will be able to have their coverage accepted at the stated premium rate and guarantee as posted on the RMA web site. Because put options are traded in an active market, one may submit a purchase order at a specified premium but not get a fill on the contract. This is an even greater issue with put options that are on the deferred months. The deferred months are often thinly traded option markets and that increases the odds the order will not be filled. Even if the producer is purchasing an LRP contract, that will expire in 30 weeks or more, one will still have the contract filled. Many producers will probably prefer knowing the exact guarantee and premium cost at the time their insurance agent submits their SCE. Coverage has attached as soon as the SCE has been accepted by RMA and a confirmation number is returned to the insurance agent.

One major advantage of the LRP is the 13 percent premium subsidy and there is no commission paid by the producer. The insurance agent commissions and operating expenses of the insurance company are all funded from a separate line item in the RMA budget.

Summary. This is a very “clean” contract with the exception that the catastrophic price risk appears not to be covered. Without the proposed underwriting rules listed above, it is the equivalent of being able to call one’s insurance agent and purchase “fire insurance when the house is already on fire”. If RMA were to adopt those proposed underwriting rules, then producers could still “buy fire insurance if they see a fire off in the distance but has not yet reached their house”. This is okay for LRP because the premium and guarantees change daily but not if the “house is already on fire”.

In any case, eligible producer **should** apply for a policy because there is no cost. Once the producer has an LRP policy they will be able to purchase coverage quickly if market conditions change suddenly. However, if they have not submitted an application for the LRP policy before the event they will not have time to react. If cattle producers don’t later submit an SCE that establishes coverage, producers are only out their time for submitting the policy application because they owe no premium.

TABLE 1. OPERATIONS WITH BEEF COWS, BY SIZE CATEGORY, SELECTED STATES, 2002.

State	1-49 Head	50-99 Head	100-499 Head	Less Than 500 Head	500+ Head	Total
CO	6,300	1,700	2,250	10,250	250	10,500
KS	18,600	5,200	4,020	27,820	180	28,000
NE	12,200	4,200	5,070	21,470	530	22,000
CO, KS & NE TOTAL	37,100	11,100	11,340	59,540	960	60,500

Source: USDA