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Is Crop Insurance a Better Buy than ACRE? ¹

Dear Art,

Great series on ACRE. I am trying to figure out if keeping 20% of my direct and applying it toward the next level of coverage for corn, say going from 75% to 80% would get me more protection than ACRE. It is probably impossible to figure because we can't calculate the RA price until the year we sign up for coverage. We do know we only get 83% with ACRE where we get 100% with RA-HPO.

If I have a \$20 direct @ 20% it would cost me \$4 for ACRE. I need to go back and see what it costs to go from 75 to 80% and how much extra revenue I would get. I know the extra premium costs around 50% of the extra revenue. Taking \$4 off that extra premium may make it look better than risking ACRE.

AS I understand if I don't have a revenue loss even though the state does I get nothing from ACRE. Only if I and the state have a revenue loss do I get money from ACRE. (must carry CI of course)

I like the unit option with the RA attached I just can't justify paying a 50% premium for the extra protection once I get into 75 to 85% levels. I more interested in my own revenue protection which the HPO option gives more than the chances of a state wide revenue loss. In states like KS where we have a wide variance of soils and rainfall it looks pretty

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risky to me granted that in the first years in all likely hood we will be in the money strike prices as you say. But if you stay in the direct don't you still have counter-cyclical and target price protection?

Am I looking at this right?

Farmer J.

Dear J.

It sure looks to me like you have had too much tractor time to think about all of these issues! However, I not surprised that farmers like yourself are stating to think through all of the signup issues. This is clearly not a “no brainier” signup because a 20 % reduction in direct payments is the same as paying “premiums” for ACRE.

The question of spending 20% of your direct payment on higher levels of crop insurance tells me that farmers are thinking about ACRE and not just accepting the arguments by the Washington “experts”. If it makes sense to by higher levels of crop insurance coverage then it makes sense to buy higher levels of crop insurance coverage with or without ACRE. So I think the insurance decision is largely independent because there is no requirement to spend 20% of your direct payment on “insurance”.

If the question is: “Is crop insurance a better buy than ACRE”? You have identified several reasons why crop insurance is better buy including the guarantee is at the farm level not at the state level that creates basis risk in ACRE. Crop insurance payments are based on 100% of the planted acres, not just the 83.3 % of the acres covered in the ACRE program. Also there are no payment limits on crop insurance. In addition, crop insurance covers prevented planting that is a current risk faced by some corn farmers. ACRE does not consider prevented planting because it only includes planted acres when calculating the revenue to count against the ACRE guarantee, i.e. like GRIP.

ACRE is a put “option” on expected state revenue, subject to a below “average” farm revenue plus crop insurance premiums. The ACRE “premium” costs equal 20% of the farm’s direct payment. If we assume farmers meet the below average farm revenue triggers in all of the years that trigger state level ACRE payments, then over the last 28 years the “premiums” approximately equal the ACRE payments. So the historical loss ratio is 100, the same targeted loss ratio that is set for crop insurance. If you are in a state with a loss ratio of 100 or greater then clearly crop insurance is a better buy than ACRE for the “average farmer” because farmers only pay about half of the crop insurance premium. If the state loss ratio is below 50, then ACRE is the better buy based on historical losses, assuming the farmer meets the farm level trigger in each of the years that ACRE triggers.

However, I expect ACRE to generate a “loss ratio” greater than 100, because I expect farmers will adversely select on ACRE. Because the strike price is based on the prior two years, farmers will want to switch to ACRE when the expected market price is below

the strike price in ACRE. The expected price will be based on deferred futures adjusted for price basis to estimate the Market Year Average (MYA) price. This condition will generate an in-the-money put “option” on the expected state revenue but unlike a Chicago put option the premium does not change with the change in risk. Because the ACRE “premium” does not change with the risk this means farmers will pay the same for in-the-money as they do for an out-of-the-money ACRE contract.

There are some major differences between put options and ACRE. First, farmers have no right to exercise ACRE. Farmers are only able to collect at the end of the ACRE contract similar to Revenue Assurance, Crop Revenue Coverage, and Group Risk Income Protection. This why one might want to buy call options to “lock” in expected payments from an in-the-money ACRE contract. This is even more likely in states that have a large amount of negative price yield correlation, e.g. Kansas wheat, Iowa corn, etc.

ACRE is revenue coverage that include yield not just price. So if the state has two below trend line yields in their state Olympic average yield then the yield calculation might cause ACRE to be an out-of-the-money option when lower prices would make ACRE an in-the-money option.

Even when buying in-the-money put options does not mean they will be in the money at expiration. The same is true with ACRE because it is possible for higher state yields to eliminate payments even when prices are low or with low yields combined with higher prices causing the elimination of ACRE payments. Higher prices eliminating payments are even more likely if the state has a “high” negative price yield correlation. However, ACRE revenue guarantees will have more price risk versus yield risk in a state level revenue guarantee than a farm level revenue guarantee.

Yes you are correct, ACRE has a double trigger. The State must first have a loss below 90% (10% deductible) and then the farm must also have a loss. The farm trigger does not have a deductible and farmers add their crop insurance premiums to the benchmark farm level revenue. Therefore, farmers may have slightly above “average” farm revenue and still trigger the farm level ACRE trigger requirement. Adding the crop insurance premiums to the bench mark farm level revenue increases the odds that the farm level will trigger. If both the state and farm trigger then farmers are paid based on the state’s loss. Farmers are then paid on 83.3% of their acres (effectively a second deductible) based on the ratio of their farm yield versus state yield, i.e. those farmers with a higher approved FSA farm yield will receive a larger ACRE payment than those farmers will a lower approved FSA farm yield within a state.

There is also an ACRE maximum payment limit of 25% of the expected state revenue. So if a farmer’s loss is bigger than the state level loss then the farmer must absorb that loss. For example, a farmer could suffer a 100% loss while the state loss is capped at 25%. It is also possible for farmers to suffer revenue losses due to low yields and not trigger the state level ACRE payments. That is the exact case for 2007 central Kansas wheat losses that would **not** have trigger ACRE payments because of higher yields in Northwest Kansas combined with higher prices. The 2007 Kansas wheat loss was the

third largest wheat lost during the past 28 years, as measured by the crop insurance loss ratio.

Yes, you still have counter-cyclical and marketing loan protection. However the target price is used to calculate the direct payment; target price less the counter cyclical strike price. As you know the direct payment is paid regardless of yield or price so farmers have protection from the direct payment locked in, but they must give up 20% of the direct payment to enroll in ACRE.

ACRE eliminates any counter cyclical payments and requires a 30% reduction in the loan rate, however accepting a lower market loan is like selling air. I just don't see how market prices will have any chance of reaching the \$1.95 corn loan without a major change in ethanol policy. If prices do hit those levels combined with fertilizer, chemical, and diesel costs that have more than doubled, will leave farmers broke anyway so the loan will not be a big help.

There is much greater chance that ACRE will pay than either the loan or the counter cyclical program. If not for the requirement to give up 20% of the direct payment, then nearly all corn, grain sorghum, wheat and soybean farmers would sign up for ACRE.