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Dear Ag industry associate:

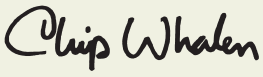
Of the many questions we receive about margin management, one that comes up frequently is: how can I be sure that my position is a hedge and not a speculative trade? While a distinction may seem fairly straightforward in theory, in practice, there is definitely a grey area between hedging and speculating. However, some general guidelines, and a good margin management policy, can help ensure you have the discipline to draw the line between the two.

Given that positions in the market can lose value, it is imperative for margin managers to understand when a position is reducing their net exposure and when it is actually augmenting that risk. This month's feature article, "Hedging vs. Speculating," explores this topic, and presents examples of how hedge positions may become more risky depending on their direction orientation or alignment with the underlying exposure in the cash market.

In addition, our regular Margin Watch reports highlight factors affecting the current profitability outlooks for the crop and livestock sectors. March has been a busy month, with the release of many USDA reports that impacted forward margins. Outside the U.S., a scandal in Brazil's meatpacking sector had far-reaching impacts that extended to our domestic markets. And as we head into the important spring planting season, we can expect increased uncertainty as weather takes on a greater focus for crop production.

As always, if you have questions, please feel free to contact me.

Respectfully,



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Upcoming Education Events

Margin Management for Lenders
Chicago

April 19-20

Commodity Price Management
Chicago

May 3-4

Hedging vs. Speculating

A question that comes up from time to time is the difference between hedging and speculating, and where to draw a line between the two.

By definition, hedging involves taking a contract or position in the market that is risk-reducing, thereby cutting one's exposure to price fluctuations. Speculating by contrast would be the opposite, to contract or take a position in the market that increases one's price exposure. While this may seem fairly straightforward such that it can be distinguished in black and white terms, in reality there are shades of grey. Yet, there are some general guidelines that can help define when a position is more a hedge or a speculative trade. Many producers and lenders are understandably concerned about this topic as trading involves capital and the possibility of losing that capital in the market. To the extent that these potential losses are offset by gains elsewhere, that is not necessarily a problem. However, if these losses compound other losses, then that can become problematic and reduce the effectiveness of one's hedging program.

Differentiate by Delta

A few examples may help to distinguish between hedging and speculating. First, let's assume a crop farmer is getting his fields ready for spring planting and contemplating his marketing strategy for the upcoming season. The market remains depressed and has been under pressure recently so the prospect of selling the crop at current price levels is not attractive. The farmer does anticipate though at some point during the summer growing season there may be a better opportunity to establish a sale against their crop production. While summer price spikes can and often do occur as a result of weather or other developments, it can be difficult to determine at what point they will become exhausted and prices turn lower. In some cases like the past two summers for example, the move will be brief and prices will retreat quickly. In other years like 2012, the move may be sharper and more extended.

Knowing that it is impossible to time the market and pick highs, the producer decides to pre-emptively buy call options against their anticipated sales which they will likely make later in the season. Because a call option provides the right but not the obligation to purchase futures at a pre-determined price, this effectively becomes insurance against the possibility of a 2012 scenario where the market will run away from the producer after he commits to a sale. While there is not necessarily anything wrong with this strategy at face value, buying calls represents a long position in the market. Without any other positions

or contracts other than the physical ownership of the crop, this pre-emptive purchase of call options actually increases the producer's length in the market. This gets into the grey area. Buying calls is not a hedge by itself; however, when combined with a sales commitment either in the cash market or on the board, the package becomes a minimum price contract which is a legitimate hedge.

The reason a producer would want to buy call options pre-emptively ahead of selling futures or establishing a forward contract or hedge-to-arrive in the cash market is that the calls will be cheaper when the market is depressed. It may also be the case that volatility is low which will also make the call options less expensive to purchase. Because the capital exposure on the position is limited to the cost of the option's premium, the strategy is less speculative in nature but it still is a long position in the market. It doesn't truly become a hedge until it's combined with an actual sale at a later date. If the market moves higher and a sale is established, the position will be effective and perform as desired. If the market continues to move lower though, the producer will ultimately have a loss on the expired call option that will reduce their eventual sale price, which is why this falls into the grey area as it may increase the producer's risk.

As a second example, let's assume a dairy producer sold a futures contract earlier this year to lock in a sales price for their summer milk production. The price at which they sold the futures contract is now well above where the market is currently trading. Because of this, they have built up quite a bit of equity on their position and are now concerned that prices may possibly turn higher if the spring flush is poor or other developments cause a market rally. They therefore consider buying a call option against their futures contract to protect that sale and their accumulated equity from rising prices. Like the crop example, the dairy producer is essentially looking at the call option as insurance against their existing hedge position. Some may mistakenly believe this trade is speculative; the dairy producer is committing capital to purchasing calls with the expectation that the market is going to move higher.

However, while the call option in both examples is a long position in the market, the difference is that in the case of the dairy farmer, there is already a sale price established. As such, the call option would not be creating additional length and risk; it would simply be reducing the degree to which the existing hedge position is short. By converting a fixed sale price into a minimum price, the dairy producer is merely changing the character of their hedge, not adding to their directional risk. In the November issue of Margin Manager, we discussed the concept of delta and how to measure it. One way to determine whether a position is speculative is to look at the net delta of the position. If the delta is the same sign as the risk exposure in the cash market, then the position is speculative. If the net delta of the position however is the opposite sign of the exposure in the cash market, then the position is a hedge.

The dairy example is a case of making an adjustment to an existing hedge position. Some confusion may arise from a focus on the adjustment itself, and not the net resulting position. While buying a call option is a long position in the market and has a positive delta, the net delta of the dairy producer's position remains negative. In the crop producer's example, the only position initially is the long call option that has a positive delta which is simply compounding the length and exposure in the market given the ownership of the physical crop.

Position Placement

Another issue that creates confusion on whether a position represents hedging or speculating concerns the placement of a hedge. Generally speaking, any hedge represents a substitute for a physical purchase or sale in the cash market. As a result, the placement of the hedge should correspond, roughly, with the anticipated timing of the purchase or sale in the local market. Going back to the crop example, the producer considering the pre-emptive purchase of a call option against their upcoming production would want to choose not only a strike price that would correspond to their anticipated selling target, but also an expiration or maturity that aligned with their expected selling date. The dairy producer similarly would opt to buy a call option against the same contract month or expiration of the short futures position, in order to harmonize the two.

It may be the case in other instances where more than one contract might represent an appropriate hedge to offset an exposure in the cash market. As an example, a hog producer or cattle feeder might be looking at their exposure against animals on feed. Within a feeding cycle, there may be contracts that overlap such that more than one contract might be used or considered in a hedging strategy. A hog producer for instance covering summer production might be looking at a combination of the June, July and August contracts to mitigate their risk exposure. A cattle feeder might similarly look at a combination of August and October contracts for steers currently on feed. While a strict hedge policy would dictate that the contract mix should match as closely as possible the production flow and physical exposure in the cash market, in practice, there may be practical reasons why hedges are not perfectly allocated this way.

Let's assume that for a deferred hedge position, there is a lack of liquidity in particular contract months such that it would be easier to execute a position if it were in a closer expiration. Going back to the hog example, while the summer production flow and risk might be distributed among the June, July and August contracts, there may be more liquidity in the June contract compared to July and August where it might make sense to front-load all of the hedges into the nearby expiration. While this might be considered speculative and does imbed a spread risk into the hedge relative to how hogs will be priced into the cash market, the perceived spread risk may be smaller than the larger price risk in a falling market, and the hedges could always be reallocated to the appropriate months later when deeper liquidity materializes in the deferred contracts.

The decision to front-load a hedge as in the previous example may also be deliberate as the result of a spread bias the hedger has. To illustrate this, let's assume that the cattle feeder who will be marketing steers currently on feed against both the August and October contracts feels that the August contract is overvalued relative to October. They may choose to allocate hedges that would normally be placed in the October expiration to the August contract instead, with the expectation that August will decline in price relative to October. If they are correct in their assumption, they can eventually roll the hedge to the October contract following a change in value between the two. Here again, this hedge placement issue and the topic of front or back-loading hedges falls into a grey area that borders on speculating. While there is a spread risk imbedded into the hedge position when this is done; if the contracts are close together in maturity such as successive months in these examples, there may be good reasons to consider this practice with disciplined guidelines under certain circumstances.

Good Policy Makes Good Practices

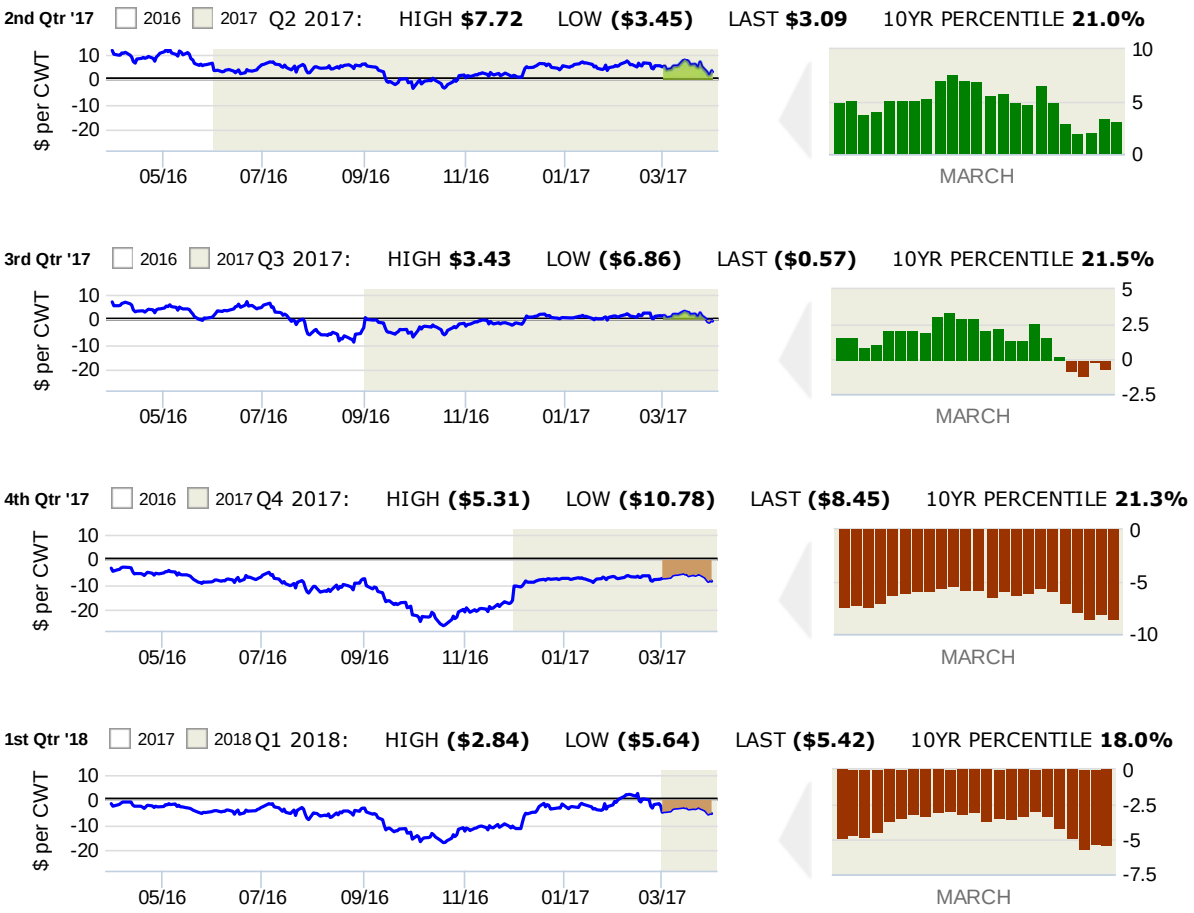
While everyone's hedge policy will be different with some more strict than others, there are some general guidelines that can help set direction and limit excessive risk taking. For starters, the delta of a hedge should always be the opposite direction of the underlying cash market risk. Someone who is long in the cash market and has risk exposure to lower prices should have a hedge position with a negative delta. For those who are short in the cash market and at risk to higher prices, a hedge should have a positive delta.

In terms of hedge placement, a strict policy will align hedge maturities as closely as possible to anticipated purchases and sales in the cash market. While more liberal policies may relax this to some extent, rules should be in place to help guide the process. Examples might include defining how far apart in maturity or expiration a hedge contract can be relative to the risk exposure in the cash market. Another might be stipulating a maximum size (typically less than 100%) that can be front or back-loaded if this practice will be included in the policy. A thoughtful policy and approach can help better define the shades of grey and make sure that a hedge doesn't become too speculative and limit the effectiveness of one's hedging program.

If you have questions or would like more information, please contact CIH at 1.866.299.9333 or cihedging.com.

Hog Margin Watch: March

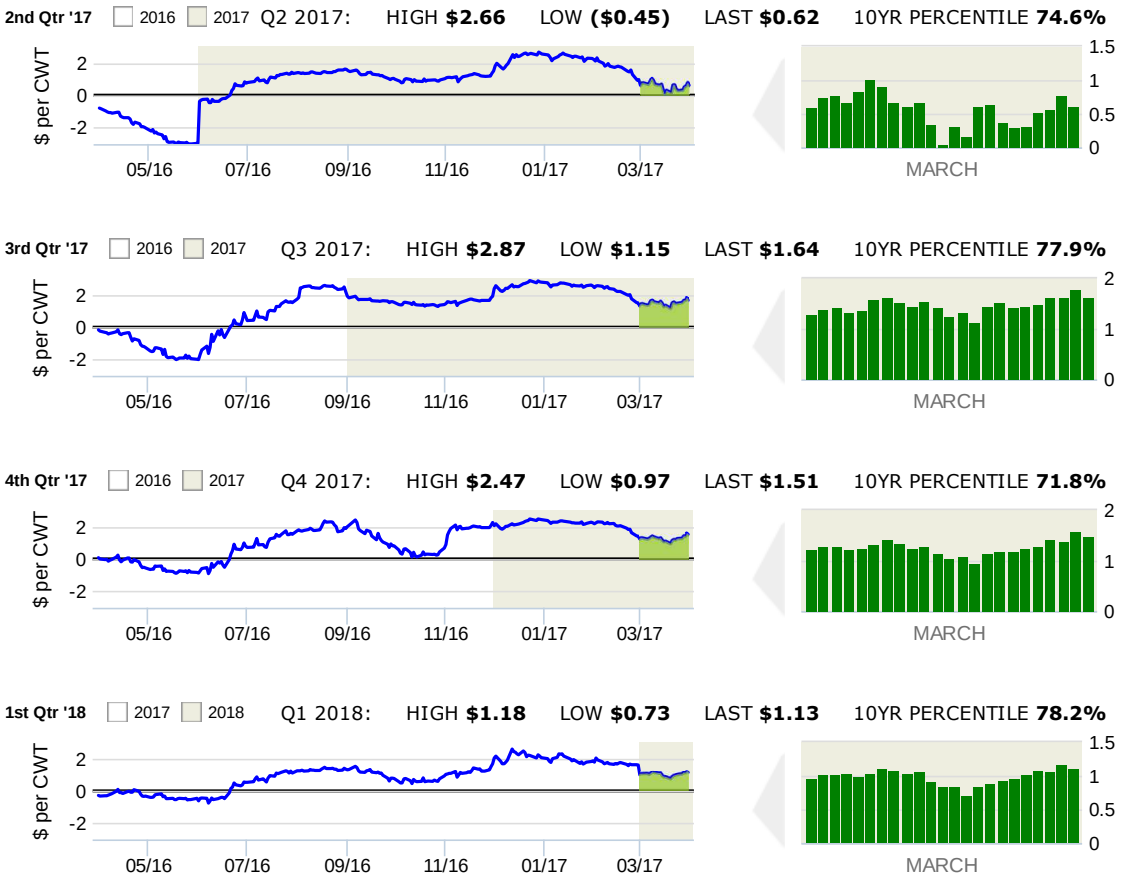
Hog margins have deteriorated sharply since the middle of March, as a slump in hog prices more than offset steady-to-cheaper projected feed costs. With the exception of the spot Q2 period, forward margins are now negative through Q1 2018 and in the bottom quartile of profitability over the past decade. Hog prices have been declining due to continued large slaughter runs that have been tracking around 7% higher than a year ago. USDA's latest Quarterly Hogs and Pigs report showed all hogs and pigs on March 1 at 70.976 million head, up 4.19% from last year, with the breeding inventory up 1.47% from last year at 6.068 million head. The kept-for-marketing figure was reported at a record 64.908 million head, up 4.45% from 2016. All figures were very close to pre-report expectations and considered neutral, although they point to ongoing increases in year-over-year pork production that will last throughout 2017 and likely into 2018. USDA also released their Quarterly Grain Stocks and Prospective Plantings reports to provide further insight on forward feed costs. The surprise in the report came from corn planting intentions at 89.996 million acres, which would be down over 4 million from last year and 1 million from the average trade estimate on the lower end of the pre-report range. By contrast, soybean planting intentions were reported at 89.482 million acres, which is up over 6 million from 2016 and 1.35 million above the average trade estimate. In addition to the larger-than-expected soybean planting estimate were larger expected March 1 stocks of both corn and beans. Given the deteriorating margins, hog producers have been adding flexibility to existing hog positions while also strengthening coverage on feed.



The Hog Margin calculation assumes that 73 lbs of soybean meal and 4.87 bushels of corn are required to produce 100 lean hog lbs. Additional assumed costs include $40 per cwt for other feed and non-feed expenses.

Dairy Margin Watch: March

Dairy margins recovered slightly over the back half of March following a recovery in milk prices, while feed costs held mostly steady. Margins remain relatively strong from a historical perspective, existing between the 70th and 80th percentile of the previous decade through Q1 of 2018. Milk prices received a boost following recent higher trade in cheese prices after a prolonged slump dating back to November. USDA's latest Cold Storage report was actually rather bearish for cheese and particularly for butter, showing strong month-over-month and year-over year builds in both product inventories. Natural cheese in cold storage as of February 28 totaled 1.257 billion pounds. That was up 34.9 million, or 2.85%, from January, and exceeded the average build of 1.28% from January to February over the past 10 years. February cheese stocks were also up 75.1 million pounds, or 6.35%, from February 2016. Butter stocks in cold storage at the end of February totaled 282.6 million pounds. That was up 61.1 million pounds, or 27.6%, from January, as compared to the average build of 19.4% over the past 10 years. February butter stocks were also 47.1 million, or 20%, more than last year. USDA reported February milk production at 16.7 billion pounds, up 2.3% from last year on a daily average basis when adjusting for leap year. USDA's recently released Quarterly Grain Stocks and Prospective Plantings reports were somewhat friendly for corn, with the latter in particular. Corn planting intentions were estimated at 89.996 million acres, which was down more than 4 million from last year and 1 million less than the average trade estimate. Our dairy producer clients benefited from making position adjustments to existing strategies, particularly adding flexibility to milk positions as well as strengthening feed hedges.

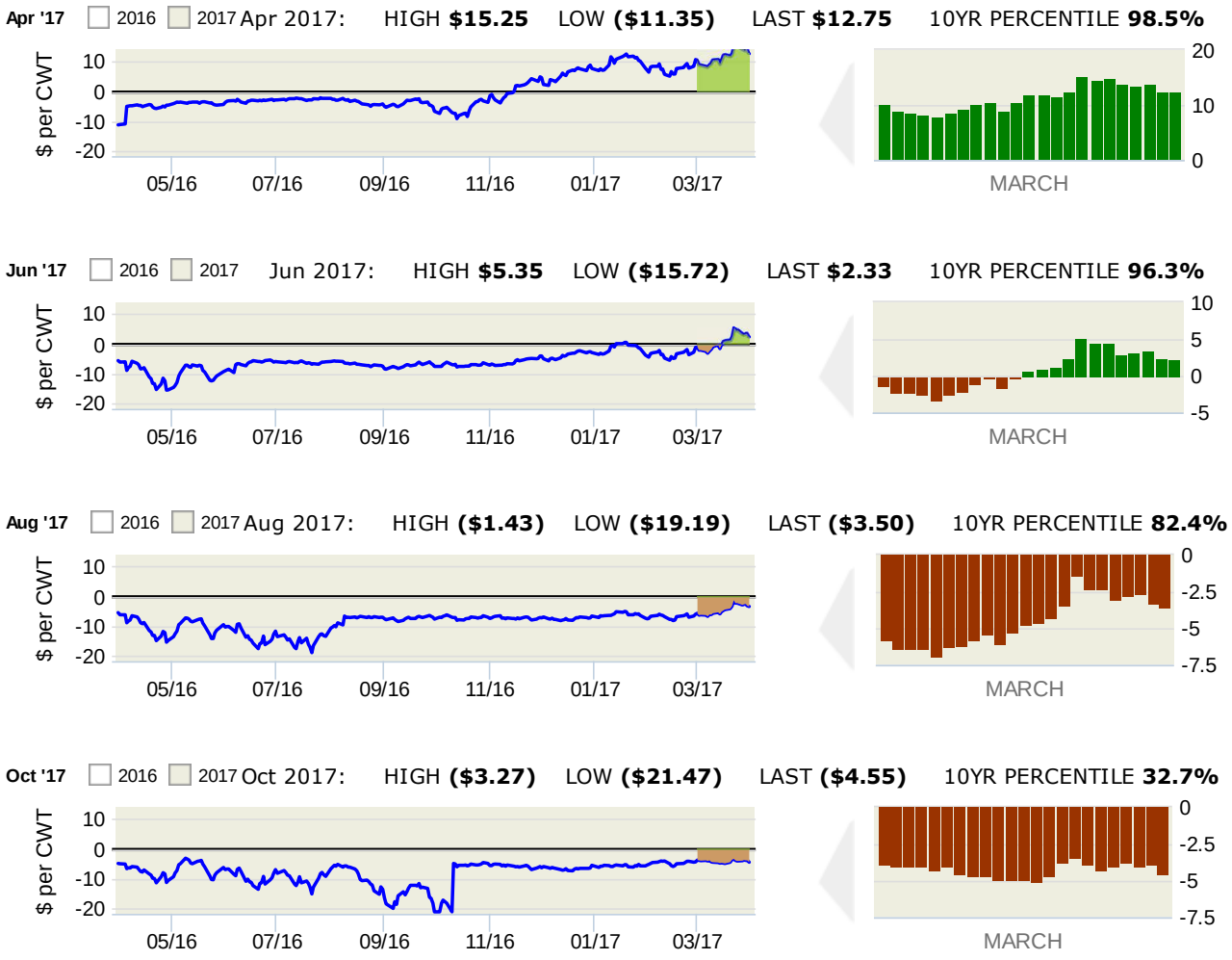


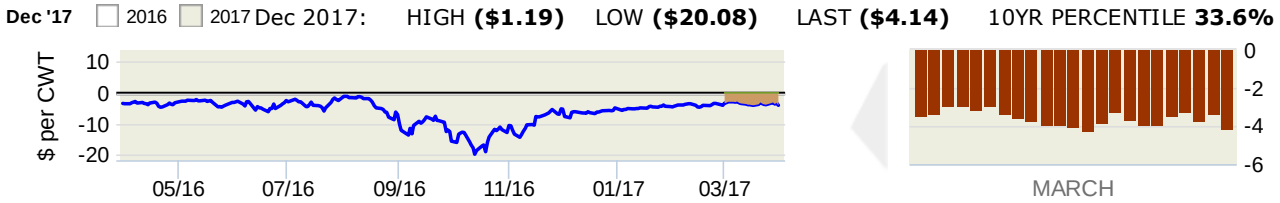
The Dairy Margin calculation assumes, using a feed price correlation model, that for a typical dairy 62.4 lbs of corn (or equivalent) and 7.34 lbs of meal (or equivalent) are required to produce 100 lbs of milk (includes dry cows, excludes heifers not yet fresh). Additional assumed costs include $0.90/cwt for other, non-correlating feeds, $2.65/cwt for corn and meal basis, and $8.00/cwt for non-feed expenses. Milk basis is $0.75/cwt and non-milk revenue is $1.00/cwt.

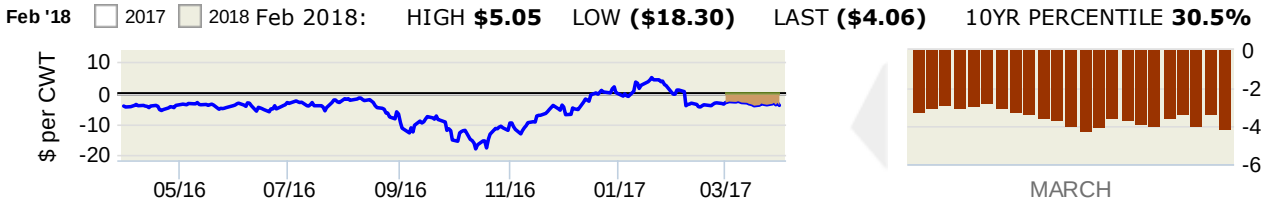
Beef Margin Watch: March

Beef margins were steady to slightly stronger over the last half of March due mainly to higher cattle prices, as corn was largely flat during the period. . Cattle prices got a boost following news of a scandal in Brazil's meatpacking industry that has compromised beef exports from the country. A whistleblower revealed extensive corruption as several beef processing plants had bribed federal inspectors to either overlook unscrupulous practices or skip inspections altogether. As a result, many large importing countries – including China, the EU and others halted Brazilian beef imports, although those restrictions were recently relaxed to some degree. While it remains questionable to what extent the development may help boost U.S. beef exports, Q1 shipments already have been quite strong. While U.S. beef production this past quarter is expected to be up 4% to 5% from last year, domestic supply is actually expected to be down 0.4% from last year due to strong exports. USDA reported a 1% increase in cattle placed into feedlots during February, with the March 1 feedlot inventory at 10.78 million head, up 0.7% from 2016. February marketings were reported up 8.8% from last year, and packers continue to bid aggressively for cattle given strong cutout values and processing margins. USDA also released the Quarterly Grain Stocks and Prospective Plantings reports, with corn receiving support from the latter. Corn planting intentions were pegged at 89.996 million acres, down more than 4 million from last year and 1 million below the average trade forecast. While March 1 corn stocks of 8.616 billion bushels remain more than adequate and up 794 million from last year, weather and new crop fundamental considerations will begin driving feed price direction over the medium to longer term. Our beef producer clients benefited from adjustments made recently to strengthen feed hedges and continue to evaluate forward crush opportunities.

Live Cattle Marketing Periods:







The Beef Margin calculation uses Feeder Cattle futures to price inbound animals and assumes each will consume 55 bushels of corn and cost approximately $250 per head (for other feed and non-feed expenses) to gain 550 pounds and reach a market weight of 1,250 pounds.

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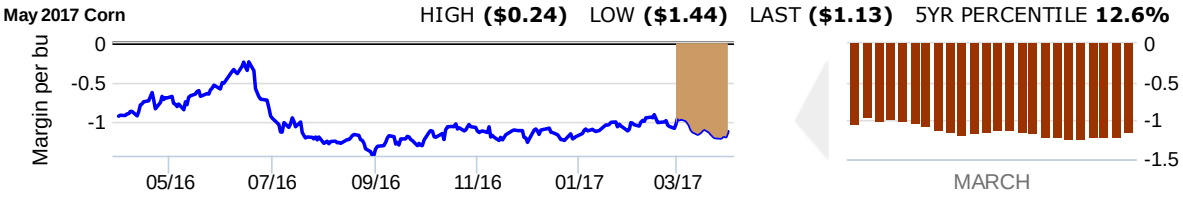
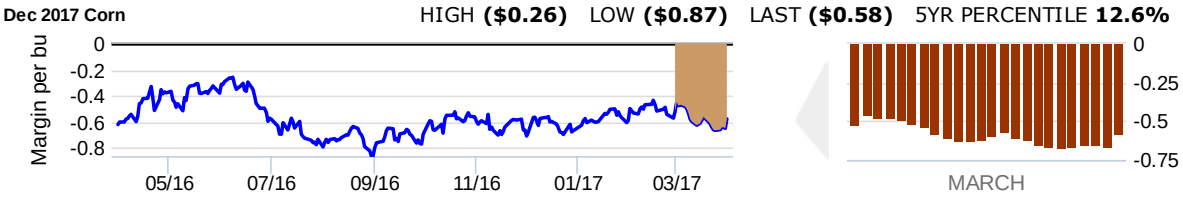
Corn Margin Watch: March

Corn prices and margins moved higher following the release of the end of March Quarterly Stocks and Prospective Planting Reports. Stocks of corn, at 8,616 million bushels, were 65 million bushels above the average pre-report expectation, and 794 million or 10.2% greater than stocks as of March 2016. Prospective plantings, at 89.996 million acres, were right in line with the 90 million acres projected in the February USDA Ag Forum Outlook, but were just over a million less than what the average expectation had grown to since then, and fully 4 million less than last year. These seedings intentions and stock figures will form the basis of the new crop corn balance sheet released in the May WASDE Report. The pace of corn export and ethanol production continued to show strength throughout March. Exports sales now stand at 83.9% and shipments at 54.0% of the USDA projection of 2,225 million bushels exported, with sales ahead, and shipments just at the pace needed to meet the estimate. Weekly ethanol production continued averaging above one million barrels per day and the streak now stands at twenty-two straight weeks. South American production estimates continue to grow, particularly in Brazil where pollination is still weeks away. The forecast for U.S. planting prospects is for a wet couple of weeks in the bread basket; NASS will release the initial seeding progress report next week. Until then, corn producers are considering flexibility in the event that weather issues creep up in either North or South America.



The estimated yield for the 2017 crop is 182 bushels per acre and the non-land operating cost is $595 per acre. Land cost for 2017 is estimated at $238 per acre [1]. Basis for the 2017 crop is estimated at $-0.2 per bushel.

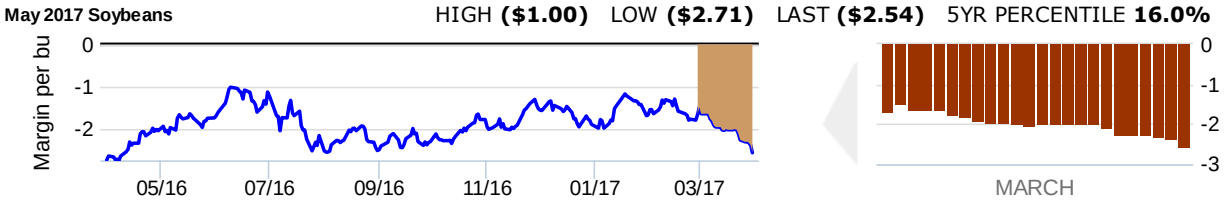


The estimated yield for the 2018 crop is 184 bushels per acre and the estimated operating cost is $547 per acre. Land cost for 2018 is estimated at $228 per acre [1]. Basis for the 2018 crop is estimated at $-0.25 per bushel.

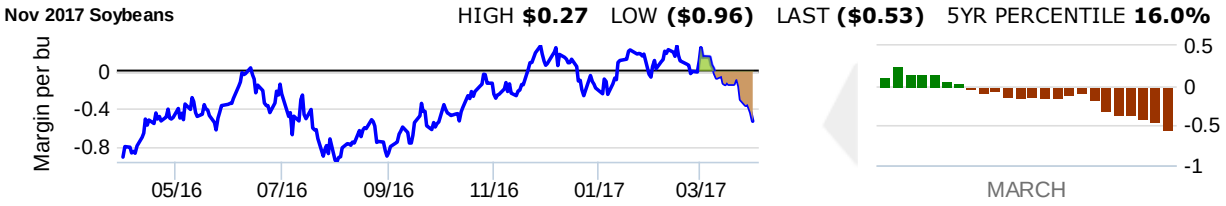
[1] The Corn Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.

Soybeans Margin Watch: March

Soybean prices and margins declined following the end of March release of the Quarterly Stocks and Prospective Plantings Reports, as both stocks and intended seedings of beans exceeded expectations. Stocks were 1,735 million bushels, which is 204 million bushels, or 13.3%, greater than March of 2016. Seeding intentions grew to 89.482 million acres from the February USDA Ag Outlook Forum forecast of 88.0 million acres and last year's planted acreage of 83.433 million. This figure, on top of the ever expanding South American production estimates, portend to ample supplies of soybeans. The harvest progress in Brazil is almost three-quarters complete, with the Argentine harvest just underway. While that supply of South American beans will dominate the soybean export market through the summer and into U.S. harvest, domestic bean export sales stand just short of the USDA projection of 2,025 million bushels and almost 85% of those have already shipped. President Trump is meeting with the People's Republic of China's President Xi Jinping this weekend and certainly trade will be among the featured topics of conversation. The bean market will be all ears, given the massive amount of beans that China imports from U.S. sources, accounting for about half of all U.S. bean exports this year alone. Given the continued fluid news flow, soybean producers are maintaining some flexibility in hedge positions, while lightening delta in response to the recent move downward.



The estimated yield for the 2017 crop is 52 bushels per acre and the non-land operating cost is $365 per acre. Land cost for 2017 is estimated at $238 per acre [1]. Basis for the 2017 crop is estimated at $-0.4 per bushel.

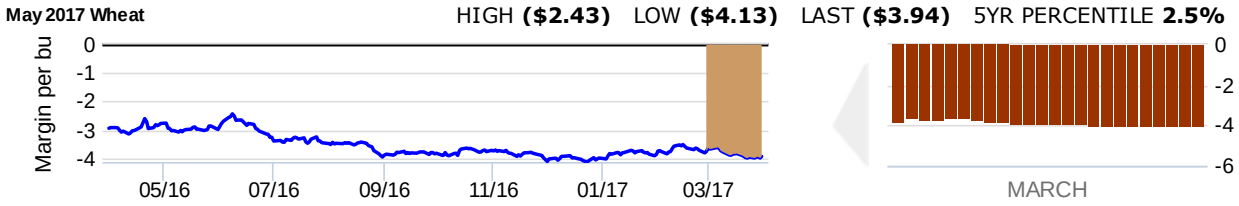


The estimated yield for the 2018 crop is 53 bushels per acre and the estimated operating cost is $290 per acre. Land cost for 2018 is estimated at $228 per acre [1]. Basis for the 2018 crop is estimated at $-0.3 per bushel.

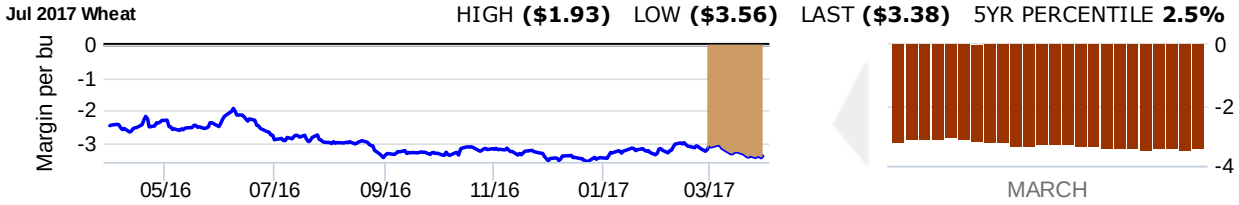
[1] The Soybeans Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.

Wheat Margin Watch: March

Wheat prices and margins were down over the past two weeks following the end of March release of the Quarterly Stocks and Prospective Plantings reports. Wheat stocks came in higher than expectations at 1,655 million bushels and were 283 million bushels, or 20.6%, greater than March of 2016. The wheat seeding intentions were right in line with expectations at 46.059 million acres, but down over 4 million acres from last year; winter wheat accounted for most of the reduction. The first indication of the winter wheat condition was 51.0% in the GD/EX categories, which was less than last year's reading of 59.0%, but higher than many expected given the less-than-optimal weather over the past month. Conditions have improved as soaking rains hit most of the plains states, and the extended forecast shows a favorable mix of warm sun and moisture. U.S. wheat exports have shipped almost 75% of the USDA projection of 1,025 million bushels, but with nine weeks remaining in the marketing year, they lag the average pace of 80.9% to meet the estimate. India has reinstated a wheat import tariff of 10% as they have replenished their depleted stocks and expect more normal production this year. Wheat producers continue to monitor the weather, as frost or too many April showers could adversely affect wheat conditions and quality, and many are considering adding flexibility to existing hedge positions.



The estimated yield for the 2017 crop is 67 bushels per acre and the non-land operating cost is $358 per acre. Land cost for 2017 is estimated at $158 per acre [1]. Basis for the 2017 crop is estimated at $-0.5 per bushel.



The estimated yield for the 2018 crop is 68 bushels per acre and the estimated operating cost is $358 per acre. Land cost for 2018 is estimated at $150 per acre [1]. Basis for the 2018 crop is estimated at $-0.3 per bushel.

[1] The Wheat Margin Watch yield, land and non-land operating cost values are based upon central Illinois low productivity farmland crop estimates in the "Historic Corn, Soybean, Wheat, and Double-crop Soybeans" report published by the Department of Agricultural and Consumer Economics at the University of Illinois.