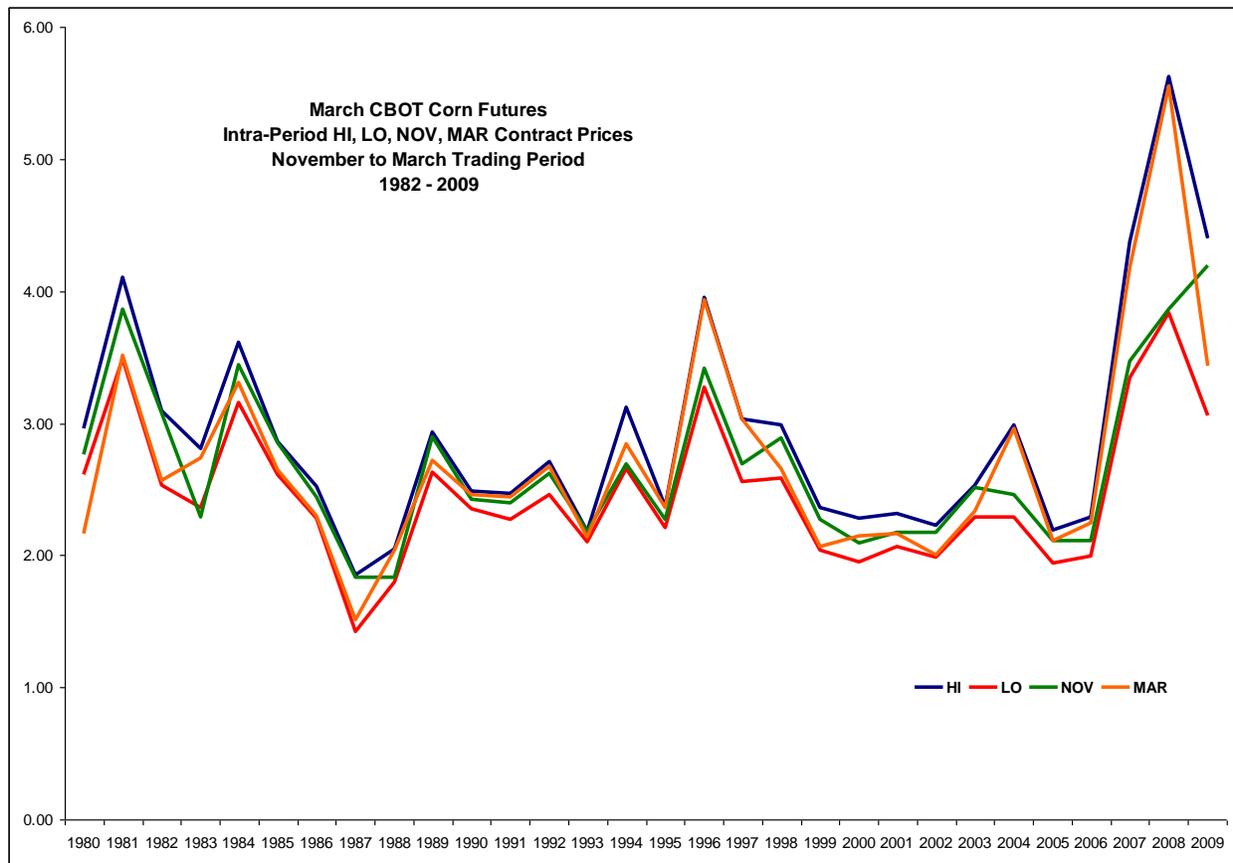


November 11, 2009

Price & Probability Forecasts®
March CBOT Corn Futures
November to March Trading Period

Corn futures have rallied 90 cents since the harvest low in September. Many producers have held off on sales waiting for \$4 numbers, or maybe for a new tax year? How much more can we expect corn to go up between now and planting time? While there are some indications of abnormal market behavior this year, the best place for starting to answer the question is often determining what we usually do during this time frame. The graphic below shows the closing price for March CBOT Corn Futures on the first trading day in November from contract years 1982 to 2009, and its intra-period high and low prices up until the close of the first trading day of the following March.



Average Price Moves

Average Variance	1982-2009
HI from NOV 1	0.2475
LO from NOV 1	-0.205
Projected HI	4.205
Projected LO	3.7525
Range	0.45

Using price data from 1980-2009 (see *Appendix*), we calculate that the 30 years average closing price for March CBOT Corn Futures on the 1st trading day in November is \$2.67 ½. This year we were substantially higher at \$3.95 ¾, which is \$1.28 ¼ more or a 47.76% premium to the average November price. The average trading range during the November – March period, over the past 30 years is 45 cents. On average the highest intra-period price for the 4 month period is 24 ¾ cents above the November close. The low is on average 20 ½ cents below November’s close. The 30 year tendency for the March Corn Futures during the November to March trading period is on average to increase 3 cents in value. We may clarify though, in up-trending years, which occurred 50% of the years under the study, prices rose by an average of 33 ¼ cents. In down-trending years, occurring 50% of the years under the study, prices declined by an average of 27 cents. If the market observes the average moves in 2009/10 we would expect the intra-period high for March Corn to be around \$4.20 ½ and the intra-period low to be around \$3.75 ¼, based on the observed November closing price. The table embedded on the top left represents these average price variances based on the data from 1980-2009. We came within 2 ½ cents of the average move high today.

Regression Analysis

Average moves are neither the most accurate nor reliable method of determining trading ranges. Average moves are affected by the price level; a 10 cent move at \$5.00 is a much larger percentage change than a 10 cent move at \$10. The use of regression analysis, a statistical tool, helps with this problem and some others. Accuracy of regression forecasts tends to increase as the size of the data set increases. In this case, we have compiled 30 years of data. We use this data to forecast high and low prices for the contract period, as well as a March price based on a Best Fit (most likely) model.

To account for 2/3 of all possible years, we employ a price scatter to discern the equal likelihood of prices occurring on either side of our Best Fit number. Though this does increase the accuracy of our model, we are still unable to account for large anomalies –or events that occur at great infrequency, in other words, potentially less often than the 30 years we are working around, (i.e. the “Credit Crisis” and the ballooning liquidity being used in an attempt to solve it). Since we are in one of those rare events, then all of our statistical forecasting models will tend to underestimate the price extremes because they are geared towards what prices usually do rather than occurrence of outlying cases.

Regression Output

Original	-1 STD DEV	Best Fit	+1 STD DEV	R-Square
HI	4.2317	4.5477	4.8637	0.8596
LO	3.2943	3.4683	3.6423	0.8772
MAR	3.6217	4.0813	4.5409	0.6719
UP	3.9045	4.1771	4.4497	0.9194

Original-Multi	-1 STD DEV	Best Fit	+1 STD DEV	R-Square
HI	4.3802	4.5321	4.6840	0.9642
LO	2.5827	2.7346	2.8865	0.9642
MAR	3.0391	3.1910	3.3429	0.9642

The data set used in the model contains the marketing years 1980-2009. Our model forecast for the Best Fit (most likely) intra-period high (HI) in March Corn Futures, given the November starting price, would be \$4.57 3/4. We have calculated an R-squared (correlation co-efficient) for the HI at 0.8596. That means that a majority of the movement in the November to March intra-period high from contract year to year can be explained by where March Corn Futures were on the 1st trading day close in November. With a moderate R-square statistic, the standard deviation also tends to narrow moderately. To account for 2/3 of all probabilities, the March Corn Futures HI could fall anywhere between \$4.23 1/4 to \$4.86 1/2 for the 4 month corn sales period we are examining.

The forecast for the Best Fit intra-period low (LO) for the March Corn Futures offers an R-squared of 0.8772. This means that the closing price on the 1st trading day in November is more strongly correlated to the intra-period low (LO), observed over the forecast period than to the HI. The model projects a Best Fit LO of \$3.46 3/4. To account for 2/3 of all probabilities, the March Corn LO for the 4 month trading period could fall anywhere between \$3.29 1/2 and \$3.64 1/4. The low since November 1 has been \$3.72 1/2.

Our model forecast for the closing price on the 1st trading day in March is \$4.08, with a range of \$3.62 1/4 to \$4.54. However, there is more variability during the study period than we would prefer, making this observation difficult to define and causing a lower correlation. With an R-squared of 0.6719, this correlation should be deemed of limited usefulness. Therefore we employ segregating the up-trend years and the down-trend years for March Corn Futures in the study, based on the observed 30 years. For years that the March price was higher than its November price, the forecast projects a March up-trending (UP) price at \$4.54 3/4, with a stronger R-square of 0.9194 and a range of \$4.23 to \$4.86 1/4. For down-trending years our forecast projects a March (DOWN) price at \$3.52 3/4, with a stronger R-square of 0.9057 and a range of \$3.33 3/4 to \$3.71 3/4.

You will notice a table labeled "Multi". Instead of using a 1:1 variable relationship, i.e. HI to NOV, LO to NOV, MAR to NOV, the multivariate combines the HI, LO and NOV prices into one formula and compares their aggregate movement to the MAR price. Thus, all of the correlation coefficients are the same, and it tends to give a tighter (maybe too tight) forecast range. This method yields a regression price forecast table that is similar to the standard regression model. It shows a similar Best Fit high, but the standard deviation range is \$4.38 to \$4.68 1/2. The Best Fit LO is much lower, however, at \$2.73 1/2 and a standard deviation range for the low of \$2.58 1/4 to \$2.88 1/2.

Adjusted Model

Adjusted	-1 STD DEV	Best Fit	+1 STD DEV	R-Square
HI	4.9852	5.1737	5.3622	0.9638
LO	3.2111	3.2841	3.3571	0.9621
MAR	4.5986	4.8825	5.1665	0.9132
UP	4.9276	5.1023	5.2770	0.9805
DOWN	3.5246	3.6514	3.7782	0.9686

The adjusted model used incorporates a data set from the same period years as the original model. The forecast was altered from our traditional regression analysis by indexing the price data to account for inflation. Indexing our 30 year price data set takes into account inflation by deflating prices relative to the base year and then inflating these prices for years following. For this study our base year is 2008. Although it leads to a greater price level of variance in the sample (and causes our distribution to flatten), indexing takes out the variability associated with inflation. In other words, there appears to be a trend in the price data due to underlying inflation

that has nothing to do with corn itself. We remove inflation in hopes of obtaining a more precise forecast.

For this Price & Probability Forecast, we used the Producers Price Index – Crude Materials for Further Processing as our inflation factor. The table below briefly explains why we chose this inflation index as oppose to the former CPI that we employed before for our previous Price & Probability Forecasts.

PPI - CMFP	CPI – U
Commodities – raw materials	Finished goods and services only
Includes foodstuffs and energies	Does not include food nor energy
Cost of production	Cost of consumption

We determined that PPI provides a better inflation index due to the underlying commodity of March Corn Futures contract is more inline with the attributes of PPI.

The result is an adjusted model that offers greater precision of our forecast, and thereby increases reliability in the outputs. Our correlation levels have increased across the board. With a higher R-square strength of 0.9638 our adjusted model forecast HI would be \$5.17 ³/₈, with a range of \$4.98 ¹/₂ to \$5.36 ¹/₄ when accounting for 2/3 of all probabilities. Likewise, the LO forecasted with a higher R-squared of 0.9621 becomes \$3.28 ¹/₂, with a range of \$3.21 to \$3.35 ³/₄ when accounting for 2/3 of all probabilities. Despite our reservation regarding the March 1 price forecast our confidence in forecasting such a number has increased, and MAR would be \$4.88 ¹/₄, with an R-square of 0.9132 and a standard deviation range of \$4.59 ³/₄ to \$5.16 ³/₄. To account for up-trending price movement probability, our forecast adjusted UP year March 1 close would be \$5.17 ¹/₄, with an R-Square of 0.9805 and a standard deviation range of \$4.98 ¹/₂ to \$5.36 ¹/₄. For down-trending probability, our adjusted model forecast DOWN would be \$3.65 ¹/₄, with an R-square of 0.9686 and a range of \$3.52 ¹/₂ to \$3.77 ³/₄.

Charts

The weekly continuation chart shows resistance at the June high of \$4.50. Uptrend support from the September low is at \$3.67 ¹/₂. The 18-week moving average is at \$3.40. Weekly MACD is bullish, while the stochastics are trying to give a sell signal.

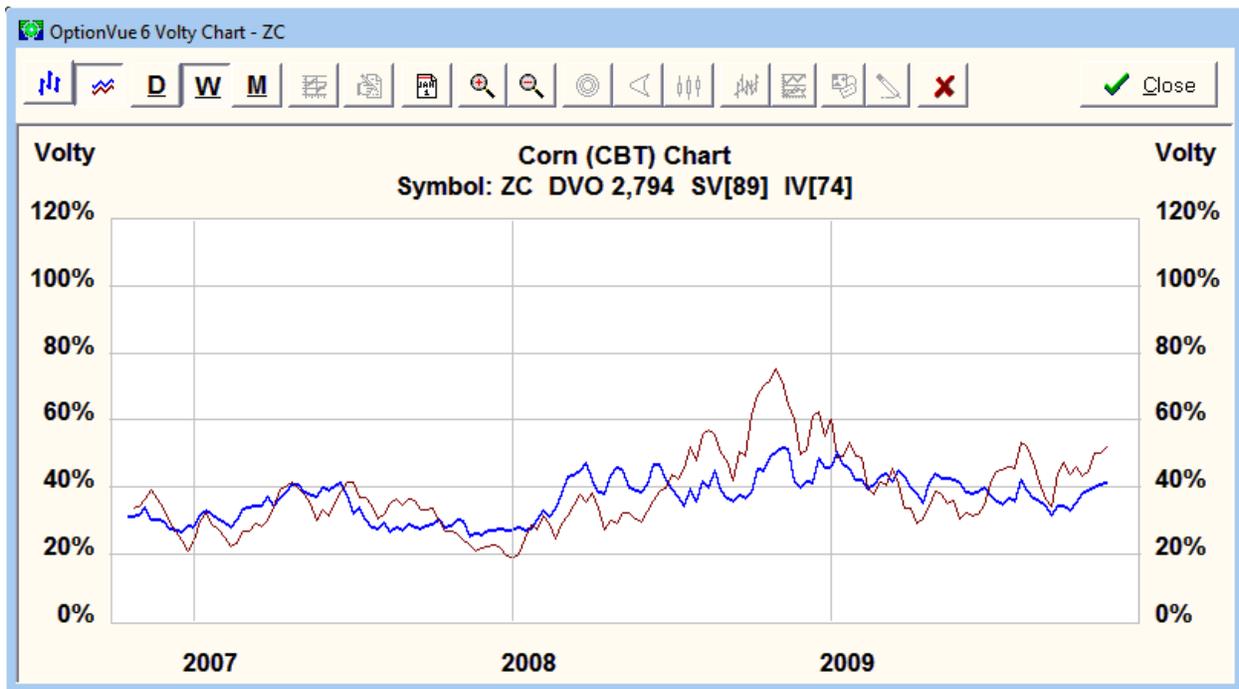
The March corn chart itself shows resistance at \$4.24 ¹/₂, which is the October high. That trading day has also been the only day above the 61.8% Fibonacci retracement of the decline from the 2008 high to the December 2008 low. That resistance is at \$4.19. Clearing that resistance would permit a move at the 78.6% Fib retracement of \$4.47 ¹/₄. The June high is at \$4.83. The 40-day moving average is support, at \$3.77. The 61.8% retracement of the September-October rally is at \$3.57 ¹/₄. Stochastics and MACD are currently bullish.



Options

Implied volatility had declined since summer, in normal seasonal fashion. However, statistical volatility has jumped sharply in the past month, and options volatility has slowly increased in sympathy. Because implied volatility is below that of the underlying futures, traders are assuming things will quiet down. Corn options are typically the cheapest in the Dec-Jan period, when there is nothing growing in the U.S. Because of the increase in volatility, December and March options premiums are larger than we might otherwise expect for any given strike price at this time of year.

Options traders assign probabilities of hitting certain prices every time they buy or sell a contract. We can reverse engineer the options premiums to see what they believe the current odds are of reaching the prices projected from our average move or regression modes. Specifically, we're looking at the odds of being in-the-money at expiration of those March options in late February.



Based on current put options premiums, the market has 25% odds of being below \$3.40 in late February. Odds of being at \$5.20 or higher are presently 19%. One standard deviation of prices, based on the implied volatility, covers any late February price between \$3.10 and \$5.40. That's a big enough window to drive a semi through, and tells you that opinion about crop size and price levels is still unsettled!

Summary

The original regression model puts the 2/3 probability range at \$4.23-4.86 for the winter high, with \$4.54 the most likely. We settled at \$3.94 on Wednesday night. The multi-variate regression has similar high at \$4.53, but in 2/3 of all years would cap it at \$4.68. The PPI adjusted model sees a little more price inflation, putting the most likely high at \$5.17 and the range of winter highs between \$4.98 and \$5.36. As mentioned earlier, the price charts have resistance at \$4.24, \$4.47 and \$4.83. These fit well with the above targets computed from totally different base assumptions.

A typical winter move in March corn would take prices down to \$3.75 1/4, which is the highest target for the winter low. The most likely low is \$3.46 under the regression model or \$3.28 1/2 under the inflation adjusted model. The worst case scenario is \$2.58 1/4, which is 1 Standard Deviation below the most likely low in the multi-variate model.

We do need to remember that these deviation ranges only account for 2/3 of all possible years, and that this could be the exception year where prices go out on the probability "tail" like they did in 1996 and 2008 for the bull side or 1987 for the bear side.

Strategy

The March contract is not overbought, and currently showing few signs of going down yet. MACD and stochastics are bullish. The main target for making sales is the \$4.47-4.54 area, particularly if the US dollar holds retracement support in the 74.80 area (which would take away some of the inflation bullishness). If the dollar breaks down, the \$4.98-5.17 type numbers come into play or maybe even \$5.36. One approach for moving old crop corn in this environment would be a scale up approach, selling 20-30% at each interval. That is, move one increment in

the \$4.45-4.55 area, a second in the \$4.83-\$4.98 zone and the rest in the \$5.17-\$5.36 area. Of course, there is no guarantee that the market will hit all three, and so protective puts are needed to guard against a move to the lows without hitting the highs.

Selling puts at strike prices below \$3.30 on dips should have low odds of being hit, and generate some time decay. It won't be terribly lucrative. Selling calls above \$5.20 on rallies also has low odds of being exercised, and of course you can also just decide that the market can have the corn if we get there.

"HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM. ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING. FOR EXAMPLE, THE ABILITY TO WITHSTAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE NUMEROUS OTHER FACTORS RELATED TO THE MARKETS IN GENERAL OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CAN NOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS AND ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS."

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Appendix I

**Price & Probability Forecast
March CBOT Corn Futures
November to March Trading Period**

Contract Year	Period		Closing	
	HI	LO	NOV	MAR
1980	2.9600	2.6100	2.7650	2.1675
1981	4.1025	3.4900	3.8650	3.5100
1982	3.0900	2.5300	3.0750	2.5650
1983	2.8075	2.3600	2.2900	2.7400
1984	3.6150	3.1600	3.4425	3.3125
1985	2.8650	2.6150	2.8525	2.6425
1986	2.5200	2.2825	2.4375	2.2975
1987	1.8475	1.4200	1.8325	1.5075
1988	2.0500	1.7975	1.8350	2.0375
1989	2.9325	2.6275	2.8975	2.7175
1990	2.4875	2.3550	2.4200	2.4625
1991	2.4700	2.2725	2.3950	2.4400
1992	2.7125	2.4550	2.6225	2.6700
1993	2.1775	2.1000	2.1775	2.1350
1994	3.1175	2.6575	2.6875	2.8475
1995	2.3675	2.2050	2.2675	2.3575
1996	3.9550	3.2700	3.4150	3.9325
1997	3.0300	2.5600	2.6950	3.0275
1998	2.9900	2.5825	2.8925	2.6550
1999	2.3625	2.0400	2.2750	2.0625
2000	2.2825	1.9525	2.0925	2.1475
2001	2.3200	2.0650	2.1750	2.1650
2002	2.2300	1.9850	2.1700	2.0050
2003	2.5325	2.2850	2.5125	2.3350
2004	2.9825	2.2900	2.4550	2.9600
2005	2.1900	1.9425	2.1075	2.1100
2006	2.2875	1.9950	2.1075	2.2425
2007	4.3725	3.3450	3.4700	4.1725
2008	5.6200	3.8350	3.8600	5.5550
2009	4.3950	3.0550	4.1925	3.4350
2010			3.9575	

Appendix II

**Price & Probability Forecast
March CBOT Corn Futures
November to March Trading Period
Adjusted with PPI-CMFP**

Contract	Period		Closing	
	HI	LO	NOV	MAR
1980	1.1203	0.9878	1.0465	0.8203
1981	1.6781	1.4276	1.5810	1.4358
1982	1.2272	1.0048	1.2212	1.0187
1983	1.1295	0.9494	0.9213	1.1023
1984	1.4859	1.2989	1.4150	1.3616
1985	1.0900	0.9949	1.0853	1.0054
1986	0.8777	0.7950	0.8490	0.8002
1987	0.6875	0.5284	0.6819	0.5610
1988	0.7816	0.6853	0.6996	0.7768
1989	1.2007	1.0758	1.1864	1.1127
1990	1.0758	1.0185	1.0466	1.0650
1991	0.9927	0.9133	0.9626	0.9807
1992	1.0816	0.9789	1.0457	1.0646
1993	0.8855	0.8540	0.8855	0.8682
1994	1.2604	1.0744	1.0865	1.1512
1995	0.9656	0.8993	0.9248	0.9615
1996	1.7874	1.4779	1.5434	1.7773
1997	1.3369	1.1295	1.1891	1.3358
1998	1.1495	0.9928	1.1120	1.0207
1999	0.9214	0.7956	0.8872	0.8044
2000	1.0932	0.9352	1.0022	1.0285
2001	1.1149	0.9923	1.0452	1.0404
2002	0.9574	0.8522	0.9316	0.8608
2003	1.3608	1.2278	1.3500	1.2547
2004	1.8833	1.4460	1.5502	1.8691
2005	1.5847	1.4056	1.5250	1.5268
2006	1.6788	1.4642	1.5467	1.6458
2007	3.5963	2.7512	2.8540	3.4318
2008	5.6200	3.8350	3.8600	5.5550
2009	2.9713	2.0653	2.8343	2.3222
2010			3.9575	