

To better acquaint you with this special service, we have listed below several frequently asked questions. Please read through this section to learn more. If you have additional questions/comments, send them to: John.Eustice@informaecon.com or James.Buelteel@informaecon.com

Q. What is Futures-Implied Pricing?

A. Futures-implied pricing is a method for creating forward price estimates for cash commodity items from exchange-traded futures prices. To be successful, there must be a predictable relationship between the price of the cash commodity and the price of the commodity represented by the futures contract. For example, prices for Ruminant Meat and Bone Meal are related to the price of soybean meal since both serve as a source of protein in feeds. Thus we can use soybean meal futures to create futures-implied prices for cash Ruminant Meat and Bone Meal in forward time periods.

Q. How do I access the Informa Economics Futures Implied System?

A. The Informa Economics system is delivered over the Internet through the use of a web browser. Simply go to the address: www.informaecon.com/fipfi to get the main login screen. You should then enter your UserID and password to gain access to the system. UserIDs and passwords are supplied by your Informa Economics representative.

Q. How much does access to the Futures Implied System cost?

A. An Annual fee is charged for access and is available to Feed Ingredient Subscribers. The size of the fee varies with the number of categories the user wishes to have made available. See your Informa Economics representative for pricing.

Q. What are the functions of futures-implied pricing?

A. Futures implied prices perform two primary functions:

1. They reflect the "market's view" of what a commodity will be worth in a future time period.
2. They facilitate hedging with futures.

Q. How are futures implied prices calculated?

A. A statistical technique (regression) is used to derive an equation that is optimal for translating the futures price into the price of the cash commodity. That equation is then paired with real-time futures quotes to produce real-time futures-implied prices for the cash commodity.

Q. What time period is reflected in the futures-implied price?

A. Both weekly and monthly average prices can be used. This means that futures-implied prices can be generated on a weekly and monthly basis. This is important to capture seasonal tendencies in the relationship between cash commodities and futures prices. It also allows for better targeting of hedges for a particular time frame.

Q. How might a buyer use the Informa Economics Futures Implied Pricing System?

A. In several ways. First, he/she might want to use the futures implied price as a "forward indicator" to help time purchases. For example, if he/she has the option of buying a commodity now or buying it later and the futures-implied price is significantly lower than the current offers from his/her suppliers, the manager might want to delay the purchase.

Secondly, the manager might want to use the futures implied price as a "check" on forward offers by his/her suppliers. When quoted for delivery in a future time period, the manager can compare this quote with what "the market is offering" via the Futures Implied Pricing System.

Finally, the manager may actually want to hedge a future commodity purchase or sale in the futures market. The Futures Implied Pricing System provides essential information such as the size of the position needed and what to expect in the way of hedge effectiveness.

With regard to futures hedges, the system could be used to comply with accounting requirements put forth in FASB statement 133 in order to obtain hedge accounting for the position.

Q. Can I trade at the futures-implied price?

A. A futures hedge can be placed in an effort to "lock-in" the futures implied price. Each futures implied price is conditional on the futures price that existed at the moment the table was generated. Futures prices can and do change, sometimes by a large amount. If the futures price changes, so does the futures implied price. The only way to protect against a futures price change is to own a futures position.

Q. What information is provided to help users make pricing decisions?

After selecting a cash commodity item, the user is presented with a table where each row on the table gives information relating to a particular week or month in the future. Each of the columns contain valuable information as described below:

Week Ending: this is for the Saturday date on which a week ends

Week Number: this is the relative position of the week in the calendar year.

R-Square: this statistic is an indicator of how strong the relationship is between prices of the cash commodity and the futures price in the selected week or month. R-square ranges from 0 to 100 with 0 indicating no relationship at all and 100 signaling perfect co-movement between the cash and futures prices. R-square is the squared correlation between the cash and futures. This statistic can also be used as an indicator of the historical effectiveness of hedges placed in this week and can be used to meet the "expected effectiveness" requirements of FAS 133.

Hedge Ratio: this is the number of units of futures that should be held for every unit of cash commodity hedged. For example if the hedge ratio is 1.3 and the

user wants to hedge 62,000 pounds of the cash commodity, then he/she needs 80,600 lbs. of the futures ($62,000 \times 1.3 = 80,600$). Alternatively, if the user is planning on purchasing two futures contracts at 40,000 lbs. each, then this would be a hedge for 61,580 pounds of cash commodity ($80,000 \div 1.3 = 61,580$).

Target Price: this is the mean futures-implied price. The chance that the actual price will be higher than this number is 50% and the chance that the actual will be lower than this number is also 50%. If we had to pick one value to represent the "most likely" price, the target price would be it.

25% Level: there is a 25% probability that the actual price will be lower than this number. If the user enacts a hedge based on the hedge ratio and at buys the futures contract at its current price level, then we would expect the outcome of the hedge to be less than this number 25% of the time. Here, the outcome of the hedge refers to the 'net price' from the hedge-the eventual cash purchase price plus the gain/loss on the futures position.

75% Level: there is a 75% probability that the actual price will be lower than this number. This also implies that there is a 25% chance that the actual price will be higher than this number. If the user enacts a hedge based on the hedge ratio and buys/sells the futures contract at its current price level, then we would expect the outcome of the hedge to be less than this number 75% of the time. This level can be changed by the user. For example, if the user wants to see the price at the 90% level, he/she can enter 90 in the box labeled 'Confidence Limit' and then click the button labeled "Change Parameters, Refresh Data." This will cause the 25% column to change to 10% and the 75% column to change to 90%. The target price will always be displayed as a point of reference and as the most likely price.

First Available Year: the earliest possible year to include in the analysis. Generally, it is a lack of good data on the cash commodity that constrains an analysis because historical futures prices are usually plentiful. If, for example, a cash commodity price series first became available in April of 1997, then for the implied price of July 7, 2002 the first available year will be 1997. For the implied prices of Feb 12, 2003, the first available year will be 1998, meaning that the model underlying the futures-implied prices will be built from data beginning in 1998 and carrying through the most recent quote for that week or month.

Based on Futures: this is the futures contract underlying the futures-implied prices given on that line of the table. The first two letters represent the commodity (C_=corn, W_=wheat, BO=soybean oil, SM=soybean meal, S_=soybeans), the next four digits are the contract year and the last two digits are the contract month. Futures contracts are always the nearby contract up until the first day of the delivery month, when they are rolled to the next listed contract. This is the futures contract that a hedger would use to place a hedge for the time period indicated by that line in the table.

Chart: clicking on this icon produces a scatter diagram that allows the user to visualize the relationship between the futures price and the price of the cash commodity. Each point on the chart represents a historical cash-futures price combination and is represented by the last two digits of the year. These data points are segregated by week and month of the year so that the user sees only the cash-futures prices for the selected week. The blue line shows the results of the statistical model and represents the "target price." In other words, for any futures price selected on the x-axis, the user can read off of the blue line to the y-

axis to get the futures-implied price at the target price. The closer the data points are to the blue line, the better the relationship between the cash item and futures item. If all of the data points lie exactly on the blue line, then there is perfect correlation between the cash and futures. R-square in that case would be 100. When points are more dispersed around the blue line, this indicates a less predictable relationship between the cash and futures, and r-square values fall lower in the 0 to 100 range.

Q. The futures market is trading, why are the futures-implied numbers not changing?

A. To refresh the screen and display results based on the very latest futures prices, the user needs to click on the "Change Parameters/Refresh Data" button. This will update all of the futures implied prices using the very latest futures quotes.

Q. Are models based on only a few data points reliable?

A. As a general rule, we would always prefer to have a large number of data observations. However, for many commodities a long price history is not available. When only a few data points are available for model building, uncertainty about the accuracy of the futures-implied price can be large. This is reflected in wider ranges between the 25% and 75% confidence intervals (or whatever intervals the user selects). The calculations take into account the number of data points available. If all else is equal, the 25-75 range will be wider for models with a smaller number of data points. So, even with a small number of data points, the prices given at each confidence level are an accurate portrayal of the true probabilities.

Q. What are the potential pitfalls of futures-implied prices?

A. The main area of concern is changing relationships between the cash and futures items. If it has been changing over time, then using a model that is built on price data from a relationship that no longer exists can give inaccurate results. For example, over the last five years the value of dried distillers grains has been decreasing relative to soybean meal. Thus, if we use a futures-implied model that includes data from 12 years ago, the model will likely over-predict the value of dried distillers grains in the future. To avoid this problem, the user needs to construct models that only use recent data that reflects the current market situation. In the Informa Economics system, this involves changing the value in the "Beginning Year" box at the top of the page. This will exclude the earlier data from the modeling process. To assist users in choosing the correct starting year, Informa Economics analysts have identified a "Recommended Beginning Year" for each cash commodity item. If the recommended year is the same as the first available year, this means that no significant changes in the cash-futures relationship have been detected and it is safe to include all available data in the analysis. The system defaults to the recommended beginning year and will use that unless the user manually changes the beginning year.

Q. Should I exclude outlier years?

A. The FIP system does permit users to exclude up to two years of historical data. An outlier is caused by an extreme event such as happened in Dec 2003 when the first case of BSE was discovered in the US. The resulting disruptions

to international trade and demand caused a sharp price reaction in the prices of some feed ingredients. Often users will wish to exclude these outliers on the grounds that "it will never happen again." It is permissible to exclude these outliers, but the user should keep in mind that results will now be understating the true risk as reflected by the prices in the confidence level columns because of the exclusion. The fact that is that the event did happen and a similar type of shock could happen again.