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Basis Variation in Nebraska

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Basis Variation in Nebraska

Choosing an appropriate basis is critical to using futures and option markets. The NebGuide *The Importance of the “Basis” in Trading on the Futures Market,*¹ states,

“If the producer plans to use hedging as a marketing strategy he must first understand basis and its patterns for his local area. He must know how the basis changes over time and how much fluctuation can occur over a short period. He must understand that hedging will not entirely eliminate price risk from marketing. The basis has to be estimated as it can be the key to receiving the expected price, or better. Once a hedge is set, it is the basis that will determine the actual price received.”

The use of market records is a common method of determining an expected basis. The University of Nebraska has collected market data on various sites throughout the state and made this data available in an Extension Circular (EC 02-893-B) entitled *Basis Patterns for Selected Sites in Nebraska for Corn, Wheat, Sorghum and Soybeans.*²

Basis is defined in this analysis as the local market minus the futures market. Since markets in Nebraska are normally lower than futures markets this basis is usually negative. When it is positive it is referred to as an inverted basis.

Table 3 shows the annual average basis for ten marketing years. The marketing year begins in July for wheat and in October for corn and soybeans. The standard deviation indicates annual average basis variation is least for soybeans and greatest for wheat.

Although year-to-year is greater than seasonal basis variations, understanding seasonal patterns may be more useful for developing post-harvest marketing strategies. The more seasonal basis patterns vary over time the less useful they are for planning purposes. The seasonal pattern of the

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1. *The Importance of the “Basis” in Trading on the Futures Market*
2. *Basis Patterns for Selected Sites in Nebraska for Corn, Wheat, Sorghum and Soybeans*
Table 3. State Annual Average Bases

<table>
<thead>
<tr>
<th>Market Year</th>
<th>Corn</th>
<th>Soybeans</th>
<th>Wheat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>-0.14</td>
<td>-0.35</td>
<td>-0.08</td>
</tr>
<tr>
<td>1993</td>
<td>-0.11</td>
<td>-0.32</td>
<td>-0.21</td>
</tr>
<tr>
<td>1994</td>
<td>-0.13</td>
<td>-0.41</td>
<td>-0.20</td>
</tr>
<tr>
<td>1995</td>
<td>0.07</td>
<td>-0.42</td>
<td>-0.17</td>
</tr>
<tr>
<td>1996</td>
<td>-0.18</td>
<td>-0.39</td>
<td>-0.17</td>
</tr>
<tr>
<td>1997</td>
<td>-0.27</td>
<td>-0.42</td>
<td>-0.26</td>
</tr>
<tr>
<td>1998</td>
<td>-0.33</td>
<td>-0.44</td>
<td>-0.40</td>
</tr>
<tr>
<td>1999</td>
<td>-0.31</td>
<td>-0.38</td>
<td>-0.53</td>
</tr>
<tr>
<td>2000</td>
<td>-0.24</td>
<td>-0.33</td>
<td>-0.28</td>
</tr>
<tr>
<td>2001</td>
<td>-0.19</td>
<td>-0.31</td>
<td>-0.16</td>
</tr>
</tbody>
</table>

Grand Total -0.18 -0.38 -0.25

Standard Deviation
Corn Soybeans Wheat
0.11 0.05 0.13

first and last five year periods were compared for each commodity to see their change over time. These patterns are charted in Figures 1 through 3.

These charts show that soybean basis patterns have the most seasonal consistency overall. Although the patterns of the first and last five year averages are similar for wheat, the magnitude of the basis appears to have increased. Corn appears to have the most change in seasonal basis pattern over time. The corn basis was inverted for most of 1995. The amended first five-year average in Figure 1 is a four-year average resulting when 1995 data were removed. The nine-year average excludes the 1995 data as well. Even with 1995 excluded, the consistency between seasonal patterns from one time period to the next does not appear to be great. This observation would lead us to believe that projecting the basis for corn from historic data will be more difficult than basis projections for soybeans or wheat.

Figure 1. Seasonal Nebraska Average Corn Basis

Figure 2. Seasonal Nebraska Average Soybean Basis

Figure 3. Seasonal Nebraska Average Wheat Basis


2 Lutgen, Lynn H. and Diane Wasser. Basis Patterns for Selected Sites in Nebraska for Corn, Wheat, Sorghum and Soybeans, EC 02-893-B, University of Nebraska, various.

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