The Information Content of the Limit Order Book

Presenter: Mehdi Arzandeh, PhD Candidate
Co-author: Julieta Frank, Associate Professor Department of Agribusiness and Agricultural Economics, University of Manitoba

Poster prepared for the 7th Annual Canadian Agri-Food Policy Conference, January 11-13, 2017, Ottawa, ON
Sponsored by the Canadian Agricultural Economics Society
Agricultural commodity futures were traditionally traded in Canada. The results suggest that the contribution of the LOB beyond the best quotes is significant. Our study indicates a significant role for the LOB levels beyond the best quotes and the bid and ask at subsequent levels of the LOB. For grains, the measures of price levels beyond the best quotes are as informative as the seven levels further away. Results (cont’d)

- Except for corn, MID seems to have a higher share than WP. For corn, however, two of the three measures result in higher contributions to price discovery for WP than MID.
- Livestock levels closer to BAS have relatively more information share based on the three metrics results.
- For grains, the measures suggest that the two levels beyond BAS are as informative as the seven levels further away.

Information Share Measures (%) Usage

<table>
<thead>
<tr>
<th>Futures</th>
<th>WP</th>
<th>MID</th>
<th>WP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>44.42</td>
<td>23.76</td>
<td>27.36</td>
</tr>
<tr>
<td>Live Cattle</td>
<td>36.42</td>
<td>44.55</td>
<td>38.55</td>
</tr>
<tr>
<td>Corn</td>
<td>32.80</td>
<td>31.69</td>
<td>34.27</td>
</tr>
<tr>
<td>Soybeans</td>
<td>41.02</td>
<td>51.40</td>
<td>41.43</td>
</tr>
<tr>
<td>E-mini S&amp;P</td>
<td>35.58</td>
<td>31.36</td>
<td>34.98</td>
</tr>
</tbody>
</table>

Conclusions

- Our study indicates a significant role for the LOB levels beyond BAS to price discovery of agricultural commodities.
- The results suggest that the contribution of the LOB beyond BAS to price discovery is greater for agricultural commodities than for the stock market.
- Our results also show that the faked and spoofing market orders are less present in the agricultural futures markets than in the stock market.

References


Acknowledgements

This research was supported by the Social Sciences and Humanities Research Council of Canada.

This research was enabled in part by support provided by WestGrid (www.westgrid.ca) and Compute Canada (www.computecanada.ca).

Contact Information

Mehdi Arzandeh
Department of Economics
501 Fletcher Argue Building, University of Manitoba
Winnipeg, Manitoba – Canada R3T 5V5
Email: umarzande@myumanitoba.ca