How to use LMR swine reports for risk management and to facilitate marketing

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Hogs are NOT homogeneous, sold at different times/places, & nobody has full/perfect information

• LMR encourages competition in the marketplace by bringing transparency, breadth, and depth to market reporting

• Published prices can vary greatly. They are all correct.
  – Different purchase types generally represent different hogs and/or time periods
  – Variation often extreme during large supply or demand shocks

• The “law of large numbers” states that as a sample size grows, its mean gets closer to the average of the whole population
NATIONAL NET PRICE DISTRIBUTION
Barrows & Gilts

Data Source: USDA-AMS-LPGMN


<table>
<thead>
<tr>
<th>Sale Type</th>
<th>2020-10-09</th>
<th>2021-10-08</th>
<th>Wtd Avg Net Price</th>
<th>2020-10-09</th>
<th>2021-10-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiated</td>
<td>4,314</td>
<td>6,323</td>
<td>$65.70</td>
<td>$73.91</td>
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<tr>
<td>Other Market Formula</td>
<td>49,011</td>
<td>42,759</td>
<td>$71.23</td>
<td>$87.31</td>
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<tr>
<td>Swine or Pork Market Formula</td>
<td>205,085</td>
<td>194,074</td>
<td>$78.57</td>
<td>$92.04</td>
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<tr>
<td>Other Purchase Arrange</td>
<td>105,128</td>
<td>100,565</td>
<td>$77.29</td>
<td>$90.92</td>
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</tr>
<tr>
<td>Packer Sold (All Purchase)</td>
<td>40,536</td>
<td>35,616</td>
<td>$75.54</td>
<td>$91.59</td>
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</tr>
</tbody>
</table>

Data Source: USDA-AMS-LPGMN
Relationship between **cash prices** and futures prices is critical for price risk management

Basis = Cash Price – Futures Price

- Being able to reliably forecast basis is key to successful hedging

- Moving averages of historical basis values provide a useful method for forecasting basis

- Moving averages (3-year, 5-year, etc.) appealing due to data availability and straightforwardness of implementation
Where do cash prices come from?

- (LM_HG204) Iowa/Minnesota Daily Direct Prior Day Hog - Purchased Swine
  - Now included in LM_HG218

The critical basis for any hedger is the difference between the futures prices and his/her cash market. All that matters is whether the futures and his/her specific cash market move together.
Market information needed to easily and quickly compare available marketing opportunities

• Develop expectations regarding current supply and demand conditions and where to begin price negotiations

• Published prices provide a means to evaluate alternative marketing agreements
  o “The best predictor of future performance is... past performance (or is the best we have)”
What data allow for these comparisons?

### Swine or Pork Market Formula Comparisons

Example presented for illustration purposes only, not meant to replicate any specific packer formula contract offerings

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<tbody>
<tr>
<td>#1</td>
<td>$74.83</td>
<td>$76.27</td>
<td>$75.71</td>
<td>$69.51</td>
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<td>#2</td>
<td>$69.30</td>
<td>$73.78</td>
<td>$71.47</td>
<td>$52.24</td>
<td>$98.80</td>
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</tbody>
</table>

### Graph

- **Formula contract #1** (Blue)
- **Formula contract #2** (Orange)

The graph illustrates the price trends from 2017 to 2021 for both formula contracts.
Recent “shocks” have reinforced the importance of LMR market information

- Document and corroborate impacts
- Better understand disruptions and anticipate impacts

A descriptive analysis of the COVID-19 impacts on U.S. pork, turkey, and egg markets

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RESEARCH ARTICLE

Pct. Chg ('20 vs. '19) in FI Barrow & Gilt Slaughter, Weekly

'20 vs.'19: +796,290 head (+0.6%)

Data Source: USDA-NASS & USDA-AMS
Livestock Marketing Information Center
NATIONAL NET CARCASS PRICES
Weekly, Barrows & Gilts, Producer Sold

$/cwt

2020 vs. 2019
Negotiated -$14  |  -22%
Oth. Mkt. Form. -$7  |  -9%
S/P Mkt. Form. -$7  |  -10%
Oth. Pur. Arrg. -$4  |  -5%
Total Wtd Avg -$6  |  -8%

Data Source: USDA-AMS-LPGMN; Compiled by LMIC
LM_HG201 National Daily Direct Hog Prior Day – Slaughtered Swine
NATIONAL NET PRICE DISTRIBUTION
June 22, 2020, Barrows & Gilts

Wtd. Avg. Net Price

- Negotiated: $27.33
- Other Market Formula (FUT/OPT): $67.00
- Swine or Pork Market Formula: $46.62
- Other Purchase Arrange: $60.19
- Packer Sold (All Purchase): $45.05

Data Source: USDA-AMS-LPGMN
Where do cash prices come from?

- (LM_HG204) Iowa/Minnesota Daily Direct Prior Day Hog - Purchased Swine
  - Now included in LM_HG218

Basis Adj. Futures Price Forecasts and Actual Prices
IA-MN, Producer Sold B&G, All Purchase Types

- Avg. Feb-Jan:
  - $14/cwt
  - $30/head

- Now included in LM_HG218
Decision-oriented agricultural business “toolbox” designed for farmers, lenders, farm managers, agriculture instructors, and others

Monthly livestock market outlook column provides information, analysis, and economic perspective on issues impacting cattle producers

Monthly barometer of swine production and cattle feeding costs and returns

Weekly hog production and cattle feeding “crush margins” and tracked changes serving as an indicator of risk management opportunities