Wholesale Pork Price Reporting Analysis: A Study Summary

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The United States Department of Agriculture (USDA), Agricultural Marketing Service (AMS) reports prices for wholesale pork trade using information provided to them voluntarily by hog processors and pork buyers. This notably differs from hogs, cattle, boxed beef, lamb, boxed lamb imports, and boxed lamb markets where price reporting for qualifying packers is mandatory under the authority of the Livestock Mandatory Reporting Act of 1999.

Concerns have surrounded AMS reporting of wholesale pork prices for more than a decade. Many of these concerns center on changes in the marketing practices of the pork processing industry with which, under current voluntary reporting guidelines, AMS price reporting has not been able to adequately keep pace. One option to enhance pork price reporting is to make pork price reporting mandatory for qualifying swine packers. USDA AMS commissioned a study to determine the advantages, drawbacks, and potential implementation issues associated with adopting mandatory wholesale-pork price reporting.

Information sources for this study included swine producer associations, swine packers, pork processors, retailers, food service firms, and organizations representing several facets of the hog and pork value chain. Analysis of historical trends in pork pricing, price and trade volume reporting, and frequencies of unreportable price quotes were completed. Results from this study are summarized in this fact sheet. The full project report is available at *www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5083549*.

Benefits of Public Price Reporting

Public price reporting provides essential information to facilitate trade, provide important information to industry participants about market conditions, and help transactions converge more quickly to market-clearing prices. The swine industry frequently uses publicly reported prices as a base in formula-priced trade, which amplifies the importance of accurate price reporting.

Price reporting reduces asymmetric information (one-sided knowledge) among market participants, which helps to level the playing field and counterbalance possible market power. Price information signals important decisions regarding resource allocation, production, processing, and marketing. Price data from different market levels such as farm, wholesale, and retail are used to calculate marketing margins, which may reveal changes in marketing costs among industry sectors. The broad private and public importance of price information makes reliable, accessible, timely, and accurate price reporting a valuable activity worthy of public investment consideration.

Trends in USDA, AMS Wholesale Pork Price Reporting

To determine how price reporting on individual products has changed over time, daily AMS reported wholesale pork trade data from January 1, 2001, to October 23, 2009, were analyzed. As shown in Table 1, the majority (17 of 22 cuts) of the pork cuts regularly tracked by AMS had higher reported load (40,000 pounds) volumes over the 2001–2003 period than during the 2007–2009 period. Coupling this with the fact that U.S. pork production increased about 20 percent from 2001 to 2009 suggests the AMS pork price reporting system is capturing a declining share of wholesale pork trade.

This trend of diminishing reported load volumes varies across pork primal cuts as shown in Table 2. In particular, the proportions of picnic shoulder, hams, bellies, and total load volumes captured in 2007–2009 are lower than 2001–2003. Conversely, the proportions of other primal cuts (loins, butts, and ribs) increased. AMS price reports since 2001, however, captured less than 10 percent of the volume of each individual primal cut produced. This underscores the frustration industry participants have with the current AMS price reporting system.

Analyses of pork primal cuts and cutout reports were conducted using weekly reported data from January 1, 2001 to July 31, 2009. Tables 3 and 4 summarize the relative contribution of individual pork primal cuts toward total load counts included in AMS weekly reports. Table 3 reveals processed products (e.g., hams and bellies) make up less of the reported loads and retail products (e.g., loins, butts, and ribs) make up more of the load volume (proportionally). This is also consistent with valued-added enhancements to products, such as hams, increasingly being missed (less contribution in load counts) in the reported cutout values by AMS.

This study also investigated whether reported load counts are consistent with the relative value each primal cut makes in AMS cutout calculations. Comparing tables 4 and 5, the contributions to load volumes by loins, butts, and ribs are overrepresented and picnic shoulder, hams, and bellies are underrepresented relative to their cutout value contributions. For instance, hams and bellies combine to currently represent more than 40 percent of the total value in AMS cutout calculations. However, during the 2007-2009 period less than 24 percent of the total pork transactions captured by AMS came from ham and belly trades. Disconnects between cutout value and reported load volume contributions are particularly problematic for pork cutout price discovery.

AMS reports are:

- *capturing a declining share of total wholesale pork trade,*
- *characterized by average load volumes represented in reports which are increasingly volatile, and*
- *comprised disproportionately by larger volumes of retail products than processed products relative to their cutout value contributions.*

In summary, AMS reports are 1) capturing a declining share of total wholesale pork trade, 2) characterized by average load volumes represented in reports that are increasingly volatile, and 3) comprised disproportionately by larger volumes of retail products (e.g., loins, butts, and ribs) than processed products (e.g., hams and bellies) relative to their cutout value contributions. Each of these issues raises concerns regarding how representative current AMS market news reports are of actual wholesale pork market transactions.

Potential Role of Mandatory Price Reporting

Given these trends in AMS wholesale pork price reports, it is not surprising that mandatory wholesale pork price reporting is gaining industry support. A key component of this study was to assess the potential affect of mandating wholesale pork price reporting. This assessment was made from synthesizing information gathered from industry surveys and in-depth interviews. Key findings of this assessment include:

- Mandatory price reporting would reduce concerns about potential selective price reporting by firms providing voluntary price and volume information.
- Mandatory price reporting would encourage more industry participants to use weighted-average reported AMS prices in formula trade instead of market top prices, as is current practice with a majority of pork trade.
- Mandatory price reporting would increase price information to small-volume market participants more than it would to large-volume market participants. However, large-volume market participants tend to have a comparative advantage in data analysis making them more able to analyze and use additional published data that might come with mandated price reporting.
- Mandatory pork price reporting would likely reduce the number of missing daily pork subprimal product price quotes unless confidentiality clauses became problematic precluding publication of specific prices.
- Confidentiality clauses presently used for mandatory price reporting by USDA could be problematic in wholesale pork. However, the seriousness of confidentiality clauses in pork price reporting would depend on the level of aggregation AMS designed when reporting prices for differentiated products. As the number of pork subprimal product specifications that are reported increases, the more likely the confidentiality clause would be binding.

Mandatory price reporting would offer potential societal benefits to producers and consumers. However, benefits of adopting mandatory pork price reporting would likely be modest and smaller than some industry participants might anticipate. However, regardless of the decision to adopt mandatory reporting, several other considerations are worth considering to enhance the overall effectiveness and value of wholesale pork price reporting. The key conclusion from this assessment is that mandatory price reporting alone would likely not address many of the concerns of industry. The main adjustments in price reporting suggested in this study include designing and implementing a system that effectively:

- captures increasing product heterogeneity,
- captures various enhanced products,
- captures case-ready product,
- includes export sales to Canada and Mexico, and

- delivers separate reports for formula and forward pricing methods.

Conclusions

Concerns with wholesale pork price reporting have persisted for a long time. This study examined trends in the current price reporting system, assessed the potential role of mandatory price reporting, and provided an array of suggestions for improving future price reporting systems. However, several important issues remain unknown. For instance, to comprehensively assess the affects of mandatory price reporting, specific estimates are needed, such as the proportion of trade that may be impacted by implementing confidentiality rules (e.g., "3/70/20 rule") and the volume of additional industry trade that would be captured. Unfortunately, estimates on these types of issues will remain largely unobtainable until changes are made to the price reporting system and ex post analyses can be conducted.

The key conclusion from this assessment is that mandatory price reporting alone would likely not address many of the concerns of industry.

Over time, the distribution of net benefits to hog producers, hog packers, and pork buyers of adjusting the wholesale pork price reporting system along with the relative value of market information captured in price reporting schemes must be routinely evaluated to assess whether the reporting system in place is meeting its intended goals. This need is likely to persist as the pork industry continues to evolve with ongoing adjustments in the spatial, temporal, and physical characteristics that define wholesale pork markets.

Table 1. *Average Load Volume Reported in Daily AMS Wholesale Pork Trade, 2001 - October 2009.*[1]

Pork Product	2001-2003	2004-2006	2007-2009
Loin, Bone-in, ¼" Trim 21#/DN-LGT	7.24	5.43	5.23
Loin, Bone-in, ⅛" Trim/less 21#DN-LGT	5.10	2.17	3.58
Loin ¼" Center cut, Boneless Strap-On, 10-11 Rib 5-11#	2.98	2.75	3.99
Loin ¼" Center cut, Boneless Strap-Off, 10-11 Rib 5-11#	4.82	5.51	5.62
Loin, Boneless Sirloin .75-1.5#	1.60	0.99	1.21
Picnic, Boneless, Fresh 72% combo	3.41	1.56	0.73
Butt, ¼" Trim 5-10#	9.64	7.13	9.76
Butt, ¼" Trim Steak Ready 5-10#	3.80	1.00	0.80
Butt, ⅛" Trim Steak Ready 5-10#	3.16	2.04	2.88
Sparerib, 2/bag, 3 bags PCVAC 4.25/up#-MED	1.91	1.48	2.71
Ham, Bone-in, Trimmed 17-20#, Trim Spec 1	3.56	1.72	0.66
Ham, Bone-in, Trimmed 20-23#, Trim Spec 1	8.97	5.23	2.92
Ham, Bone-in, Trimmed 23-27#, Trim Spec 1	8.72	6.05	4.88
Ham, Boneless 94-96%, 4 Muscle Group	1.58	1.11	3.35
Ham, Boneless 94-96%, 5 Muscle Group	2.13	0.49	1.17
Belly, Sdls, Skin-on, Trimmed, 12-14#	2.59	0.52	1.26
Belly, Sdls, Skin-on, Trimmed, 14-16#	3.61	1.12	1.75
Belly, Sdls, Skin-on, Trimmed, 16-18#	2.55	0.93	0.81
Fresh 42% combo	4.54	2.97	1.83
Fresh 72% combo	7.54	4.25	4.89
Fresh, Skinned Jowls	0.96	0.07	0.03
Fresh Trim,Visual Trace of Lean, 12-16% combo	0.86	0.39	0.25

Table 2. *Percentage of Average Weekly Pork Production Captured through Voluntary Price Reporting, August, 2001 – October 2009*[2]

Product	2001-2003	2004-2006	2007-2009
Loin	5.81%	6.01%	7.45%
Butt	8.24%	6.95%	9.28%
Picnic Shoulder	4.00%	3.41%	3.16%
Rib	4.07%	3.95%	7.91%
Ham	5.93%	4.14%	3.95%
Belly	2.70%	1.23%	1.82%
Total Loads (Cut Out)[3]	5.78%	4.62%	5.40%

Note, the typical carcass processing yield percentage is 25.35% Loin, 10.34% Butt, 11.12% Picnic, 4.49% Rib, 24.98% Ham, 16.02% belly, and 5.65% variety meat. Cut loss is approximated at 2.06%.

Table 3. *Summary Statistics on Relative Contributions toward Total Load Counts, 2001 - October 2009.*[4]

	Loin	Butt	Picnic	Rib	Ham	Belly	Trim
2001-2003	24.8%	14.5%	7.9%	3.0%	26.0%	7.8%	16.1%
2004-2006	33.1%	15.5%	8.3%	3.9%	22.0%	4.3%	13.1%
2007-2009	35.1%	17.6%	6.6%	6.5%	18.4%	5.4%	10.5%

Table 4. *Summary of Statistics on Relative Contributions toward Total Load Counts, 2001 – October 2009.*[5]

	Loin	Butt	Picnic	Rib	Ham	Belly	Trim
Average	30.8%	15.8%	7.6%	4.3%	22.3%	5.8%	13.4%
Std. Dev.	7.3%	4.7%	2.8%	2.7%	6.9%	3.5%	4.9%
Minimum	12.8%	5.1%	1.7%	0.0%	5.3%	0.0%	2.2%
Maximum	53.0%	37.8%	18.9%	16.3%	41.9%	20.5%	28.6%

Table 5. *Relative Contributions Toward Composite Cutout Value.*[6]

Loin	Butt	Picnic	Rib	Ham	Belly	Other*
25.3%	10.3%	11.1%	4.5%	25.0%	16.0%	7.7%

** Other includes Jowl, Hind Feet, Neck Bones, Tails, Front Feet, and Cut Loss*

Endnotes

1 USDA, AMS data; Constructed by Tonsor; and table reflects daily trade data through October 23, 2009.

2 USDA, AMS data and LMIC; denominator is barrow and gilt production (carcass weight).

3 This value is absolute loads and not relative loads weighted by the percentage of carcass the primal cut represents.

4 Constructed by Tonsor; and table reflects daily trade data through October 23, 2009.

5 Constructed by Tonsor; and table reflects daily trade data through October 23, 2009.

6 For more information see "USDA Estimated Composite Pork Carcass Cutout – An Overview." Available at: *http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRD3484991.*

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