U.S. Hog Marketing Contract Study

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The January 2007 data for hog marketing arrangements or marketing contracts in the USDA Mandatory Price Reporting (MPR) system was summarized for this report. However, participation in the reporting system was again voluntary in January 2007 as it was in January 2006. In 2006 Congress renewed the law making reporting mandatory, but all the necessary rules for implementation had not been completed by January 2007. However, we believe the voluntary and mandatory data are comparable between years because virtually all of the same plants reported each year.

The definitions for the marketing arrangements in this study are not the same as those used in other studies conducted by the University of Missouri and the National Pork Board. In fact, since our first study using MPR data was conducted in 2002, two of the MPR definitions have changed. Although direct comparison for all marketing arrangements cannot be made across all the years of our studies, we believe the spot market or negotiated groups are directly comparable through all of our studies since 1994.

Here are the current definitions of the arrangements reported under the MPR system and the changes affecting comparisons of data with earlier studies:

1. Negotiated. This is comparable to the spot or cash markets of our previous studies.

2. Swine or pork market formula. This is also quite consistent with the same grouping in previous studies. It is a price that is tied to either the spot or negotiated hog market or to meat prices. Studies prior to 2002 included some packer hogs in this group.

3. Other market formula. This grouping fits with the futures market group in studies prior to 2002 and after 2002. In 2002 this group also included contracts tied to feed prices.

4. Other purchase arrangement. In the 2003 and later, this category includes the contracts tied to feed prices along with the window risk sharing contracts of previous studies. The MPR system does not provide information about ledgers. In 2002 this group only included the window risk sharing contracts.

5. Packer-sold hogs. These are the hogs that are produced by a packer but are probably out of position for the packer to slaughter in one of his plants. Many of these hogs are priced with a contract, and in studies prior to 2002 most were included in Item 2 above.

6. Packer-owned hogs. These are the hogs that are produced by the packer who slaughters them. In our studies prior to 2002, most of these hogs were included in Item 2 above. The integrated operations use formula pricing methods to determine the amount of revenue to allocate to their hog production divisions.

Total hog slaughter under Federal Inspection in January 2007 was 9,281,400 head. Data for 8,462,599 head (91.2% of FI slaughter) were reported through the MPR system. All of the MPR reported hogs were barrows and gilts, which amounted to 94.5% of all barrows and gilts slaughtered under FI in January.

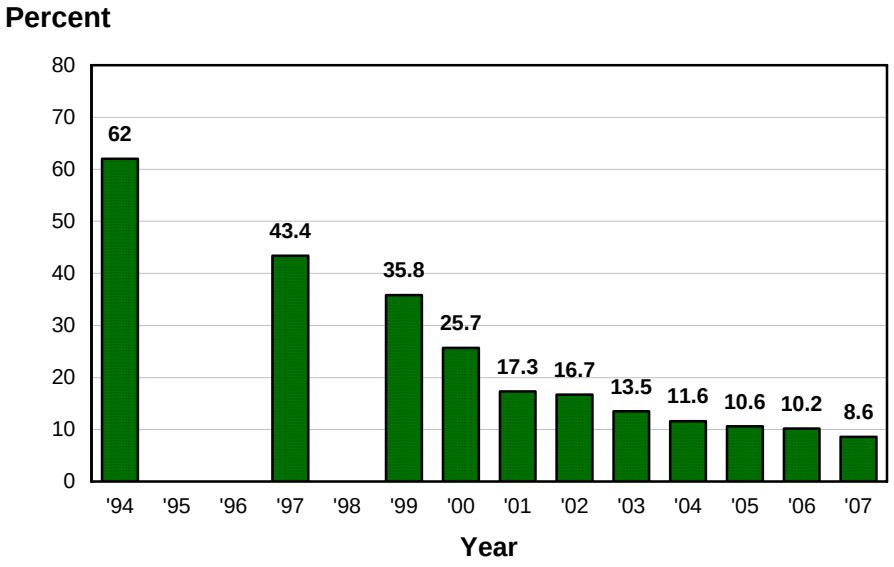
Table 1
Percent of U.S. Hogs Sold Through Various Pricing Arrangements,
January 1999-2007*

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hog or meat market formula	44.2	47.2	54.0	44.5	41.4	41.4	39.9	41.6	38.3
Other market formula	3.4	8.5	5.7	11.8	5.7	7.2	10.3	8.8	8.5
Other purchase arrangement	14.4	16.9	22.8	8.6	19.2	20.6	15.4	16.6	15.2
Packer-sold				2.1	2.2	2.1	2.4	2.6	6.7
Packer-owned				16.4	18.1	17.1	21.4	20.0	22.7
Negotiated - spot	35.8	25.7	17.3	16.7	13.5	11.6	10.6	10.4	8.6

*2006 and 2007 data were reported to USDA voluntarily; 2002 through 2005 data are based on USDA Mandatory Reports; 1999-2001 are based on industry surveys by the Univ. of Missouri.

Non-negotiated or non-spot purchases in January 2007 accounted for 91.4% of the purchases of market hogs included in the price reporting data. The 2006 study showed 89.8%; the 2005 study showed 89.4%; the 2004 study showed 88.4%; the 2003 study showed 86.5%; the 2002 study showed 83.3%; the 2001 study showed 82.7%; the 2000 study showed 74.3%; the 1999 study showed 64.2%; and the 1997 study showed 56.6% were non-negotiated transactions.

Figure 1.
Percent of Hogs Sold on the Negotiated Market



Source:
1994 and 1997 studies by University of Missouri, Pork magazine, PIC, DeKalb Choice Genetics, National Pork Producers Council, Land O'Lakes.
1999-2007 studies by University of Missouri, NPPC, National Pork Board.
2002-07 USDA/AMS data.

By adding the percentage of hogs purchased in the negotiated markets to the percentage purchased on a swine-pork market formula, the current study indicates that the price of at least

47% of the hogs in the U.S. was directly determined by the negotiated market. The true percent is higher because a high percentage of the packer-owned and packer-sold hogs are priced with a market formula.

About 23.7% of the hogs in January 2007 were purchased under some system that supposedly reduces price risk to producers, 8.5% were bought on a contract tied to the futures market, and 15.2% were other purchase arrangements. These risk shifting arrangements amounted to 33.6% of the independently produced hogs.

"Supposedly" is used in the paragraph above because some of the pricing systems do not actually affect the variance of price received by the producers. Only cash contracts (the ones usually tied to futures) and contracts without ledgers reduce producers' price risk. Other arrangements may or may not result in a realized average price that is different from the actual average negotiated price.

The data in the MPR system do not permit one to quantify how many ledger arrangements there are. Any amount by which the market price falls short of the arrangement's target price must be repaid in at least a portion of ledger contracts. Some of the contracts contain a sunset clause to end after a specified time period. We do have data on ledgers and other characteristics for the other purchase arrangement hogs from a 2004 University of Missouri and Iowa State University study. Based on this data, for 61% of the other purchase arrangement hogs the price is tied to feed prices and for 39% the contract is a window type. The ledger contracts amount to 29% of the other purchase arrangement hogs and 71% of these hogs have no ledger.

The rate of decline in use of the spot market increased between 2006 and 2007. However, we believe a substantial portion of the decrease was due to USDA categorizing the hogs sold by producers who own Triumph Foods in Missouri and Meadowbrook farms in Illinois as packer-owned or packer-sold hogs. Some of these hogs were probably sold on the spot market. In Table 1, note that packer-sold hogs increased from 2.6% in 2006 to 6.7% in 2007. We still believe the number of hogs sold on the spot market is sufficient to represent actual supply and demand conditions and result in a fairly accurate price for hogs. This belief is based on the fact that packers' margins have not indicated that they are purchasing hogs at prices much, if any, below their value based on actual supply and demand conditions.

The MPR legislation also requires packers to report percent lean, carcass weight, base price, and net price for each marketing arrangement type. These data for January 2007 appear in Table 2.

Table 2
Hog Marketing Arrangement Averages,
January 2007

	% Lean	Carcass weight (lbs.)	Base carcass price/cwt.	Net carcass price/cwt.*
Negotiated	53.70	200.31	$57.39	$59.20
Swine-pork market formula	54.78	203.83	58.01	60.29
Other market formula	54.69	208.26	56.14	59.30
Other purchase arrangement	54.26	202.11	59.21	60.64
Packer-sold	54.53	207.48	57.94	60.88
Packer-owned	53.12	203.28		

*Net price includes credits for quality, transportation, time of delivery, etc.

The negotiated price hogs had the second lowest average percent lean and the lightest average weight. The other market formula hogs (contracts tied to futures market) had the highest average weight at 208.3 pounds. The packer-owned hogs had the lowest percent lean.

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