



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

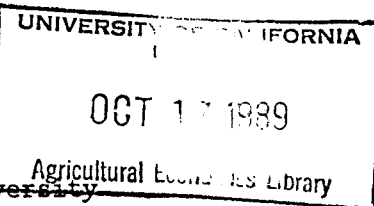
Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

U.S. HOG MARKET OUTLOOK^{1/}

Gene Futrell, Extension Economist, Iowa State University



U.S. hog producers experienced an extended period of generally favorable returns from May of 1986 through June or July of 1988. Returns were exceptional at times. Profits disappeared, however, by late summer of 1988, as hog prices weakened and drought-fed strength in feed costs combined to push returns for most producers well into the red. Negative returns continued to be the general rule through May of this year. This was generally true for all segments of the production industry (Table 1.)

Poor returns from last fall into the past spring created fairly widespread expectations that the breeding herd would be reduced further and that farrowings from this spring through the balance of the year would show at least moderate year to year declines. To some extent, this has happened; but not to the degree expected. And the USDA's June Report on Hogs and Pigs added uncertainty about the near term trend in production by estimating a 3% smaller breeding herd on June 1 but no change in sow farrowing plans for the June-November period. As a result, I'm unsure whether production is likely to decline moderately in the first half of next year or to increase. Perhaps a forecast of no significant change in production level is the best course.

June 1 Inventory Down Slightly...

The number of hogs on U.S. farms June 1 was estimated by the USDA's Agricultural Statistics Service is 55.5 million head, down just 1% from a year earlier. Market hogs were estimated at 1% below last year and breeding stock down 3%. The breeding herd estimate indicated a small downward adjustment from

^{1/} Presented at the Extension Outlook Session, 1989 American Agricultural Economics Association meetings, Baton Rouge, LA, July 31, 1989

1989

Swine -- Marketing 295

March 1, when breeding stock were reported at 2% below the previous year. This was the direction of change expected. More surprising, perhaps, was the small decline in market hogs, which reflected somewhat larger sow farrowings during December-May than had been indicated by the USDA's March Hogs and Pigs Report. Sow farrowing and pig crop estimates for both the December-February and March-May periods are now estimated at only 1% below the previous year. In March, sow farrowings for December-February were estimated at 2% below a year earlier and farrowing intentions for March-May were estimated to be down 3%. These are relatively small changes, but the upward direction of change may be significant. Some confusion is created then by a reported further reduction in the breeding herd without any decline in farrowing plans (Tables 2 and 3).

Inventory and pig crop estimates indicate hog slaughter in the current quarter should be very close to a year earlier. Fourth quarter slaughter will be up seasonally from the third quarter but may be 1 or 2% below 1988. Sow farrowing intentions indicate a potential for hog slaughter in the first half of 1990 to be fairly close to this year's level. Looking back, actual hog slaughter in the first quarter of this year was close to the level indicated by USDA's December inventory estimates. However, the 5% increase in second quarter slaughter was well above both December and March report indications (Table 4).
Competing Meat Supplies...

Present indications then are that pork supplies over the next 3 1/2 quarters will show relatively small year to year changes. I expect beef supplies over most of this period to be moderately below year earlier levels. But any decrease will likely be offset by a further increase in supplies of chicken and turkey. Total per capita use of meat and poultry this year will be about the same as last year's record of around 219 pounds, retail weight. And 1990 consumption will

probably continue at that level or slightly higher.

Demand for Pork...

There's been considerable discussion and research concerning the demand for pork in recent years and how it may have changed. I do not have much to offer in this regard that is very rigorous or definitive. However, my simple analysis shown in Figures 2 and 3 suggests to me that (a) pork demand did decline in the 1981-87 period, but showed a positive change in 1988, and (b) that the competitive relationship between pork and chicken has changed, with broiler meat now a stronger competitor than in the years prior to 1983. In Figure 3, the years 1984 through 1988 show higher broiler to pork consumption ratios and price ratios that are also higher than in most other recent years. Similar graphical analysis indicates there has been no noticeable change in the beef/pork demand relationship.

Price and Returns Outlook...

The average price of barrows and gilts at seven terminal markets during the first six months of this year was \$41.35 per cwt., down 8.7% from the \$43.30 average in the same months of 1988 (Table 5). Pork production in this period increased by 4.0%. Large stocks of pork in cold storage, particularly of bellies, were a negative influence on hog prices during the winter and early spring. July holdings were down seasonally from earlier levels, but were still relatively large and were 6% above a year earlier.

Hog prices showed good seasonal strength in June and have been generally within a \$46.50 to \$49.50 per cwt. range at midwest markets since mid-June, with sales at times at \$50 to \$51. Prices are expected to be in the mid to upper \$40 range for the near term, but will likely show seasonal weakness by late August and into September. Lows in late October or November are expected to be around \$40 or a little below, followed by moderate seasonal recovery in December and

continuing into early 1990. On a quarterly basis, I expect the third quarter barrow and gilt average at seven markets to be within a \$45 to \$47 range, a fourth quarter average of \$40 to \$42, and prices in the first half of 1990 to average in the low to mid \$40 range.

The profit outlook is not good at the price levels forecast. Returns will also be influenced considerably by feed costs. And while there's still uncertainty about the final outcome of this year's feedgrain and soybean crops, chances appear good for somewhat lower feed costs in the year ahead--compared to the past twelve months. Even so, production costs for most producers are likely to be above the prices projected for the 4th quarter and through much of the first half of 1990. Top producers may show modest profits but moderate losses will be more common--unless prices are higher than forecast.

Longer Term Outlook...

At this time, there does not appear to be anything in the market or near term market outlook that will cause a major change in the level of sow farrowings and pork production over the next year or more. As a result, the hog business may continue in a marginally profitable state in the last half of 1990 and into 1991. Expansion by some operations, especially larger firms, may offset moderate net decrease in other segments of the industry. And this could keep production fairly close to recent levels.

Foreign Trade...

U.S. International trade in pork and live hogs has become a significant factor in the U.S. market in recent years. Volume of imports has exceeded export volume for many years. And the spread has widened in recent years, with substantially larger imports from Canada. Net imports (import volume less exports) of pork and hogs added around 8% to the U.S. pork supply in 1987 and about 7% in 1988. In the first four months of this year, imports of pork and

pork products were 17% below a year earlier, but imports of live hogs more than doubled. Combined imports of hogs and pork on a carcass equivalent basis were about 6% below last year. While exports have increased this year over 1988 volume, net imports during January-April still added about 6 1/2% to the U.S. supply of pork. This larger volume of pork trade makes imports, and at times exports, relevant considerations in analyzing the hog and pork markets.

Much of the current trade discussion is focused on Canadian hog and pork imports. The U.S. International Trade Commission is currently gathering information on Canadian hog subsidies, their influence on pork exports to the U.S., and the economic impact of Canadian exports on the U.S. hog and pork industry. In 1985, a duty was imposed on live hogs shipped into the U.S. from Canada, but no duty was placed on pork products. The duty on live hogs was reduced in early 1989 and is currently about 1.8 cents per pound. In May of this year the International Trade Commission instituted a temporary countervailing duty on Canadian pork, pending a final determination of whether the U.S. pork industry is materially injured or threatened with material injury. This followed an earlier petition from the National Pork Producers Council to impose countervailing duties on pork and pork products and preliminary determination by the ITC that Canadian hog producers were benefiting from governmental subsidy programs.

I'll not enter that debate in this paper, but will only comment that the final decision on the Canadian pork duty issue will be of some significance to the U.S. market. My analysis indicates total Canadian imports of fresh, chilled and frozen pork and of live hog imports had a negative impact on U.S. hog prices of around \$3.25 per cwt. in 1988 and around \$3.50 per cwt. in the first four months of 1989.

Other Issues...

There are numerous other issues that are of importance to the hog industry and which could have longer term price implications. Let me simply list some of them for thought.

- (1) Pork quality -- There is need for further reduction in fat, more consistent quality and a grading system that is discriminating with respect to final product quality.
- (2) Product development -- More effort is needed to develop pork products that will meet market demands for convenience and rapid preparation and also the health and nutritional considerations of consumers.
- (3) Structural change -- The number and size distribution of hog operations continues to change; how much growth will there be by large corporate firms?
- (4) Contract production -- How much is there? Will it continue to grow? What are its implications?
- (5) Packer concentration -- What are the price implications? Is there reason for concern?
- (6) Pork pricing -- How good is the negotiated price base for formula pricing of fresh pork cuts?

Table 1. Estimated Average Returns in Hog Production, Iowa

| <u>Farrow-Finish Operation^{1/}</u> | | | | | | | | |
|---|----------------|----------------|----------------|---------------|----------------|----------------|----------------|-------------|
| <u>Returns/Head Marketed^{2/}</u> | | | | | | | | |
| | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> | <u>1988</u> | <u>1989</u> |
| January | \$ 5.04 | \$32.58 | \$-4.82 | \$6.51 | \$4.55 | \$28.14 | \$16.02 | \$-9.68 |
| February | 13.33 | 31.77 | -14.06 | 7.32 | -0.15 | 30.61 | 18.53 | -13.98 |
| arch | 12.47 | 13.77 | -10.82 | -3.32 | -4.53 | 29.10 | 6.07 | -16.90 |
| April | 18.63 | 3.80 | -5.80 | -9.15 | -5.30 | 36.61 | 3.30 | -21.55 |
| May | 32.68 | 0.19 | -5.87 | -7.00 | 11.40 | 44.59 | 14.60 | -8.45 |
| June | 34.81 | -4.93 | 0.57 | 1.44 | 25.37 | 54.74 | 13.11 | -.41 |
| July | 36.15 | -6.39 | 8.67 | 2.94 | 41.44 | 53.85 | 1.89 | |
| August | 45.34 | -1.32 | 4.88 | -3.82 | 50.91 | 49.98 | -0.44 | |
| September | 46.47 | -13.12 | -4.65 | -8.83 | 46.07 | 38.74 | -13.62 | |
| October | 35.04 | -24.05 | -7.71 | 2.10 | 36.41 | 26.68 | -18.22 | |
| November | 31.58 | -30.02 | 4.59 | 2.06 | 39.71 | 9.04 | -22.91 | |
| December | 35.93 | -10.07 | 8.16 | 7.36 | 34.42 | 9.41 | -11.79 | |
| Year | <u>\$28.96</u> | <u>\$-0.65</u> | <u>\$-2.24</u> | <u>\$-.20</u> | <u>\$23.36</u> | <u>\$34.29</u> | <u>\$ 0.55</u> | |

| <u>Feeder Pig Finishing Operation^{3/}</u> | | | | | | | | |
|--|----------------|----------------|---------------|---------------|----------------|----------------|-----------------|-------------|
| <u>Returns/Head Marketed^{2/}</u> | | | | | | | | |
| | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> | <u>1988</u> | <u>1989</u> |
| January | \$ 2.58 | \$ 4.80 | \$17.61 | \$15.16 | \$14.93 | \$-1.03 | \$-0.30 | \$-0.69 |
| February | 14.19 | 12.61 | 10.35 | 16.14 | 3.86 | 6.97 | 9.21 | -4.79 |
| March | 17.19 | 0.61 | 9.97 | 1.39 | 2.74 | 6.37 | 2.03 | -5.43 |
| April | 26.51 | -8.41 | 10.68 | -6.51 | 2.60 | 16.71 | 4.21 | -18.24 |
| May | 36.08 | -13.61 | 0.77 | -8.90 | 15.58 | 25.18 | 8.81 | -6.75 |
| June | 32.97 | -19.31 | 1.58 | -2.49 | 26.09 | 32.73 | 5.08 | 2.41 |
| July | 19.52 | -18.76 | 2.28 | -2.67 | 38.60 | 33.71 | -11.74 | |
| August | 22.01 | -3.48 | -1.62 | -7.36 | 49.98 | 26.83 | -15.37 | |
| September | 19.22 | -5.52 | -8.32 | -9.57 | 40.64 | 18.08 | -25.94 | |
| October | 13.90 | -8.48 | -8.30 | 1.79 | 28.72 | 10.12 | -15.18 | |
| November | 7.31 | -7.97 | 8.84 | 9.49 | 19.66 | -6.43 | -13.16 | |
| December | 2.25 | 10.83 | 14.26 | 15.80 | 9.97 | -8.13 | -0.90 | |
| Year | <u>\$17.81</u> | <u>\$-4.72</u> | <u>\$4.84</u> | <u>\$1.86</u> | <u>\$21.11</u> | <u>\$13.43</u> | <u>\$ -4.44</u> | |

^{1/} Confinement farrowing, growing and finishing facilities.

^{2/} Includes change in proportionate share of sow value from purchase to sale.

^{3/} Confinement growing and finishing facilities.

| <u>Feeder Pig Production</u> | | | | | | | | |
|------------------------------|----------------|----------------|----------------|----------------|---------------|----------------|-----------------|-------------|
| <u>Returns/Head Marketed</u> | | | | | | | | |
| | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> | <u>1988</u> | <u>1989</u> |
| January | \$-6.92 | \$10.23 | \$-8.89 | \$-0.49 | -\$6.13 | \$15.38 | \$6.05 | \$-1.81 |
| February | -2.02 | 10.89 | -3.63 | 1.92 | -2.24 | 18.79 | 8.53 | -2.69 |
| March | 11.26 | 9.92 | 3.02 | 4.62 | 1.60 | 20.91 | 14.03 | -0.78 |
| April | 16.42 | 1.49 | 3.28 | 2.73 | -1.16 | 20.90 | 14.97 | -3.86 |
| May | 19.47 | -6.40 | .17 | -0.49 | 1.47 | 17.56 | 11.63 | -3.46 |
| June | 13.33 | -13.84 | -3.33 | -1.31 | 2.79 | 12.78 | -3.12 | -8.22 |
| July | 15.31 | -20.52 | -8.40 | -7.71 | 13.00 | 11.38 | -10.33 | |
| August | 23.51 | -19.86 | -8.24 | -8.01 | 17.04 | 12.64 | -11.50 | |
| September | 20.18 | -20.80 | -9.52 | -10.00 | 21.75 | 11.64 | - 9.22 | |
| October | 13.65 | -21.62 | -10.27 | -4.54 | 17.16 | 6.80 | - 8.32 | |
| November | 8.67 | -19.36 | -6.46 | -8.43 | 16.36 | 3.21 | -10.70 | |
| December | 8.33 | -17.21 | -4.22 | -4.28 | 14.47 | -0.44 | - 3.76 | |
| Year | <u>\$11.77</u> | <u>\$-8.92</u> | <u>\$-4.71</u> | <u>\$-3.00</u> | <u>\$8.01</u> | <u>\$12.63</u> | <u>\$- 0.15</u> | |

Table 2. Hogs on U.S. Farms June 1, 1989
and Percent Change from 1988

| | (000) | % Chg. from 1988 |
|-----------|--------|---------------------|
| All Hogs | 55,505 | -1 |
| Breeding | 7,325 | -3 |
| Market | 48,180 | -1 |
| 180#+ | 7,003 | 0 |
| 120-179# | 8,780 | 0 |
| 60-119# | 11,990 | 0 |
| under 60# | 20,407 | -2 |

Table 3. Estimated Sow Farrowing, U.S.
and 10 States and % Change from
Previous Year

| | U.S. | | 10 States | |
|---------------|-------|--------|-----------|--------|
| | (000) | % Chg. | (000) | % Chg. |
| Dec. '88- | 2,689 | -1 | 2,109 | -1 |
| Feb. '89 | | | | |
| Mar.-May '89 | 3,257 | -1 | 2,535 | -2 |
| Intentions: | | | | |
| June-Aug. '89 | 3,052 | -1 | 2,359 | 0 |
| Sep.-Nov. '89 | 2,973 | +1 | 2,304 | +1 |

Table 4. Commercial Hog Slaughter (000 hd)

| | Jan.-March | April-June | July-Sept. | Oct.-Dec. | Year |
|------|---------------|---------------|------------|-----------------|----------------|
| 1980 | 24,236 | 25,040 | 22,158 | 24,640 | 96,074 |
| 1981 | 23,678 | 22,594 | 21,278 | 24,025 | 91,575 |
| 1982 | 21,714 | 20,712 | 18,940 | 20,825 | 82,190 |
| 1983 | 20,212 | 21,666 | 21,372 | 24,334 | 87,584 |
| 1984 | 21,806 | 21,123 | 19,496 | 22,743 | 85,168 |
| 1985 | 20,871 | 21,343 | 20,556 | 21,721 | 84,492 |
| 1986 | 20,379 | 20,316 | 18,573 | 20,330 | 79,598 |
| 1987 | 19,940 | 18,911 | 19,396 | 22,834 | 81,081 |
| 1988 | 21,360 | 20,877 | 21,378 | 24,180 | 87,795 |
| 1989 | 21,886 + 2.5% | 21,939 + 5.1% | 21,370* 0% | 23,803* -1 1/2% | 88,998* + 1.4% |

* Forecast

Table 5. Average Price, B&G, 7 Markets (\$/cwt.)

| | Jan.-March | April-June | July-Sept. | Oct.-Dec. | Year |
|------|------------|------------|------------|-----------|--------|
| 1980 | 36.31 | 31.18 | 46.23 | 46.44 | 39.48 |
| 1981 | 41.13 | 43.63 | 50.42 | 42.63 | 44.05 |
| 1982 | 48.17 | 56.46 | 61.99 | 55.12 | 55.07 |
| 1983 | 55.00 | 46.74 | 46.90 | 42.18 | 47.71 |
| 1984 | 47.68 | 48.91 | 51.21 | 47.65 | 48.86 |
| 1985 | 47.32 | 43.09 | 43.62 | 45.05 | 44.77 |
| 1986 | 43.30 | 47.23 | 61.13 | 53.08 | 50.59 |
| 1987 | 48.07 | 56.17 | 58.97 | 43.51 | 51.69 |
| 1988 | 44.74 | 45.90 | 44.24 | 38.66 | 43.39 |
| 1989 | 40.78 | 41.84 | 45-47* | 40-42* | 42-44* |

* Forecast

PER CAPITA PORK CONSUMPTION, U.S.

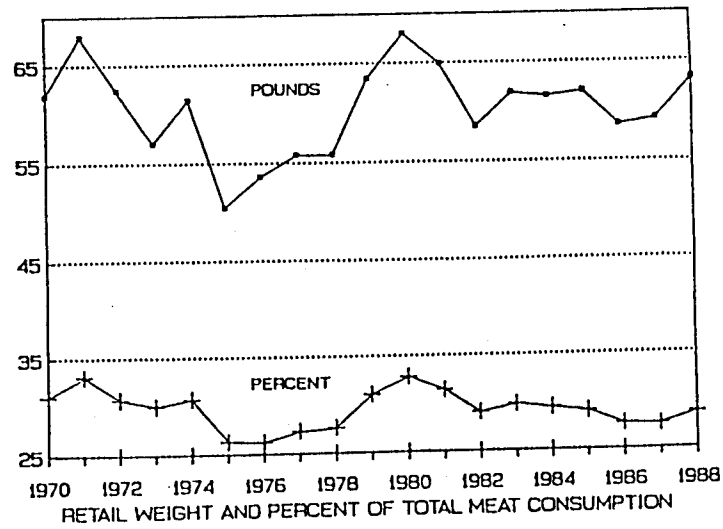


Figure 1.

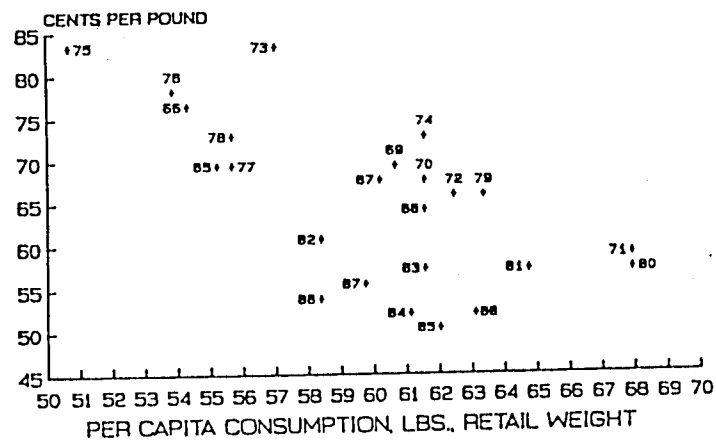
PER CAPITA PORK CONSUMPTION BY RETAIL WEIGHT AND
DEFLATED AVERAGE RETAIL PRICE OF PORK, U.S.

Figure 2.

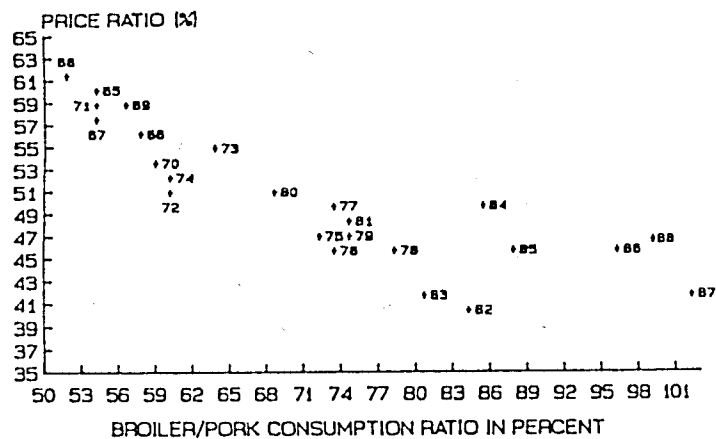
PER CAPITA BROILER CONSUMPTION AS A PERCENT OF PER CAPITA
PORK CONSUMPTION BY RETAIL WEIGHT AND RETAIL BROILER PRICE
AS A PERCENT OF RETAIL PORK PRICE

Figure 3.