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Economic Outlook for the Livestock and Poultry Industries--1983-85

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The longer term rise in U.S. consumption of red meat and poultry meat has been impressive. In 1950, the total per capita consumption of red meat (retail weight) and poultry meat was about 150 pounds. Thirty years later in 1980 and 1981, total per capita consumption was 208 pounds--a record high. In other words, over the past 30 years, Americans have increased their consumption of red meat and poultry meat combined by nearly 40 percent on a per capita basis.

When you examine the trends more closely, you will notice that red meat consumption increased from 125 pounds (retail weight) in 1950 to 150 pounds in 1970 and then leveled off. Poultry meat consumption gained throughout the period, from 25 pounds in 1950 to 62 pounds in 1981.

Within the red meat complex, beef consumption virtually doubled between 1950 and 1976, and then declined. Pork consumption has fluctuated with the production cycles but has exhibited no strong secular trend over the past 30 years. Within the poultry meat complex, both broiler and turkey meat consumption has increased significantly throughout this 30 year period.

Fish consumption was relatively stable for many years but has increased since the mid 1960s. Egg consumption has declined consistently over the past 30 years.

Fluid milk and cream consumption has been declining throughout the past 30 years as has butter consumption. Non-fat dry milk consumption increased during the 1950s but has declined since. Ice cream consumption has been

stable. Ice milk consumption increased very rapidly from 1950 to 1970, then leveled off and declined in recent years. Cheese consumption has been the bright spot in the dairy picture as American cheese consumption per capita increased 85 percent and other cheese 276 percent in the past 30 years.

These trends by 10 year intervals are presented in Table 1. To assess what is happening to demand, one needs to look not only at per capita consumption but also at retail prices. Trends in retail prices on selected livestock and poultry products are shown in Table 2. Note how much more retail beef and pork prices have increased relative to broilers. This is due to the progress in obtaining more efficient feed conversion in the poultry versus red meat sectors. In 1979-81, broiler prices were one-third of beef prices and half of pork prices.

Retail prices on dairy products have increased more in line with red meat, with the exception that cheese prices have increased more and ice cream prices have increased less. As compared with general inflation as measured by the Consumer Price Index, only retail cheese prices have increased more. In other words, the real price of most livestock and poultry products has declined--a drop that is particularly noticeable on poultry.

Consumers are spending a smaller percent of their disposable income on meat, eggs and dairy products. To get a clearer indication of demand trends, the per capita consumption figures in Table 1 were multiplied by the retail prices in Table 2 to derive per capita expenditures in Table 3.

Beef is still the "big ticket" item, with expenditures double those on pork, five times those on broilers, and greater than the total expenditures on dairy products. In spite of the decline in per capita consumption in the past decade, total expenditures on beef increased nearly as much as broilers, percentagewise. In the entire 30 year period, per capita expenditures have

increased the most on cheese, followed by broilers and then beef. Only on cheese, however, have expenditures increased more than disposable income per capita since 1959-61.

Expenditures on the selected food items as a percent of disposable income are indicated in the bottom section of Table 3. All dairy products were combined in one category. Note how consistently expenditures on meat, eggs and dairy products have declined relative to disposable income. Only on broilers, in the period of rapid expansion in demand in the 1950s, did a product garner an increasing share of the consumer disposable income.

While the trends do not indicate that the animal industries have been very effective in maintaining their share of the consumers spendable income, let alone increasing it, one might look at the brighter side and point out the opportunities in the future. After all, think of how much higher retail and farm prices might be if consumers were spending as much of their disposable incomes on these products as they were 10 or 20 years ago. On beef, for example, retail prices would be 12 percent higher and cattle prices 25 percent higher than today if consumers spent the same percentage of their disposable income on beef as in 1970.

Selling the American consumer on the idea of paying more for animal protein at this particular time is a difficult challenge. While the longer term trends indicate meat, egg and dairy sales are not keeping pace with consumer incomes, this pattern is typical of food in general. More recently, however, especially since 1980, demand for beef, pork and even poultry meat has declined for reasons we cannot fully explain.

We have explored the possibility that rising energy costs have left consumers with less "discretionary" income--income available after paying utility bills, essential travel, and other necessities--and they cut back on

eating out and buying more expensive foods. Our efforts so far have failed to find this to be the case.

This leaves a couple of other explanations that are rather difficult to measure. One is that the recession is more severe than disposable income figures would indicate, and that gloomy expectations have caused people to hold back on spending. If this is the case, a recovery should have a very positive effect on animal protein demand.

Another explanation is that concerns about health and publicity about some recent studies on diet have caused consumers to back away from the meat counter. Retailers, sensing a shift in the public sentiment, may have diverted their merchandizing effort to other products. We are not certain whether this is true or not.

Following the nitrite scare on bacon, demand for bacon appeared to be depressed for about 3 years but has since returned to earlier price relationships with pork. We could discern no overall impact on pork demand as a whole. A Roper poll taken in the summer of 1982 indicated that 53% knew of a recent report from the National Academy of Science linking cancer to diet and, of those individuals, 16% would modify their diets.

If the public were to follow the guidelines from recent nutrition studies that have received national attention, egg consumption would be the most adversely affected, followed by processed meats, cheese and whole milk and cream.[1] With close trimming of fat, the beef industry might well be enhanced by these nutrition studies. To meet total nutritional requirements, USDA research indicates that this does not nessarily mean a cutback in total red meat consumption.

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[1]Ferris, John "Economic Impact of the Interim Dietary Guidelines from the Report of the Committee on Diet, Nutrition and Cancer, 'National Academy of Sciences,' Diet, Nutrition and Cancer: A Critique, CAST, Special Publication No. 13, October 1982.

Admittedly, the entire livestock industry faces a major challenge from demand. In addition to pointing out the positive nutritional aspects, effort needs to be directed toward product improvement, more processing and more effective merchandizing. The poultry, dairy and pork industries appear to have made the most progress in this regard. The beef industry needs to become much more market oriented. Unless there are some major technological breakthroughs in production, the beef industry will have to convince consumers that beef is worth it and that they will have to pay more. Otherwise, the beef industry is in for a long liquidation phase.

The Supply and Cost Side

Consider the trends in production costs and prices in the beef industry (Table 4). In producing feeder calves, cow-calf operators nearly always cover out-of-pocket costs. However, when ownership costs on machinery, buildings and the cows, and an allowance for operator and family labor and management are added, prices on the calves have seldom measured up. In 1982, these non-land costs were estimated at $130 per hundredweight. Adding some modest return to land brought total costs up to $146 per hundredweight, twice the price on feeder calves.

While these cost estimates appear high and may be challenged by those who point out that resources in beef calf production may have few alternatives, the conclusion remains that recent feeder prices are not conducive to expansion. In 1982 dollars, current feeder prices are well below average. If beef cow numbers turn down in 1983 as might well happen, this will be very significant to the beef industry in that never before has the cycle turned down before reaching a new peak. Is this the beginning of a secular down trend in the beef industry? We hope not. But it may take a concerted effort on the part of the industry to regain the high prestige beef has held.

The cattle feeders can't do much to bid up the feeder market. Fed cattle prices hardly covered direct costs to cattle feeders in 1982, a year that was much improved over 1981 (Table 4). We do see fed cattle and feeder prices rising over the next few years enough to keep cattle numbers and beef production fairly steady.

The brightest spot in the livestock picture is hogs. We have recently seen the highest hog:corn ratio in history. Returns over direct costs in 1982 are encouraging, but hog producers are showing restraint and farrowings are not likely to increase until late spring of 1983. Low returns in 1980 and 1981 are apparently keeping hog producers cautious (Table 5). While recent hog prices will cause producers to make full use of their facilities, prices will have to move up above $60 to stimulate expansion into new facilities.

On poultry, prices declined in 1982 but feed prices declined even more. Prices were slightly below total costs on broilers, but above on turkeys and eggs (Table 6). While the nominal gross margins over feed costs increased in 1982 and were above average, these margins were modest in terms of 1982 dollars. Consequently, only a small increase is expected in broiler production in 1983 and little change in egg production. Turkey production may increase 5-10 percent.

The dairy industry is slated for a cutback. The question is when and how. For the past two years, milk production has exceeded commercial utilization by 10 percent at prices prevailing under the support program. The high rate of inflation in recent years in combination with an inappropriate formula for setting milk supports pushed milk prices out of line. Milk cow numbers which had been declining steadily since 1954, turned up in 1981 and again in 1982. Our estimate is that milk cow numbers will be up again in 1983.

Through Congressional action in August, the dairy support program was changed. Essentially, the support price on manufacturing milk will be held at the 1982 level of $13.10 per cwt. for fiscal years 1983 and 1984, ending September 30, 1984. For fiscal 1985, the support level would be at the percentage of parity which $13.10 represents on October 1, 1983. To further encourage reduction of dairy surpluses, the Secretary of Agriculture is authorized to provide for a deduction of 50 cents per cwt. from the proceeds of all milk sold by farmers. These funds are to be paid to CCC to offset the costs of handling the surpluses. The Secretary is also authorized to make an additional 50 cent assessment on April 1, 1983 under certain conditions, and this assessment would be refunded to producers cutting back by some percentage.

The first 50 cent assessment will go into effect on December 1. Likely, the second assessment will be made next April. The impact of this program on returns to dairy farmers is indicated in Table 7. Gross margin over direct costs in nominal and real terms will decline in 1983 and 1984, but would increase in 1985. Milk prices would be somewhat below total production costs, just the same.

In view of past response to returns, the program is not likely to bring production in line with utilization. Either milk supports will have to be dropped more (on the order of $2 per cwt.) or some type of production control will have to be introduced in order to cut output 10 percent. Perhaps some combination of the lower supports and a base plan will be explored. In any case, the current dairy program is not likely to prevail and major modifications will be forthcoming within the coming year.

Feed Costs

A large carryover of feed grains and soybeans coupled with record 1982 crops will keep feed prices relatively low for the next couple of years.

If compliance with the 1983 Feed Grain program is relatively high (over 60 percent), chances are that the Farmer Owned Grain Reserves would be tapped late in the 1984-85 crop year. This would push corn prices up to the $3.15-$3.25 trigger levels. Soybean meal prices (44%, Decatur) are expected to range between $175-$200 per ton in 1982-84.

Conclusions

The slow economic recovery expected in 1983-84 should help pull up prices on red meat and poultry but no strong advance is anticipated in the next two-three years. Production plans appear to be geared to this outlook. However, on dairy products, the mechanism for bringing production down in line with projected utilization is not in sight. Relatively low feed prices are in prospect for the next year or two to help livestock producers hold down costs.

Table 1

Trends in Per Capita Consumption of Livestock, Poultry and Dairy Products

Product	Three Year Average				Percent Change 1949-51 to 1979-81
	1949-51	1959-61	1969-71	1979-81	
			lbs.		%
Red meat (retail weight)					
Beef	48.3	64.0	83.2	77.3	+ 60
Pork	64.7	60.3	63.6	65.5	+ 1
Lamb and Mutton	3.4	4.4	2.9	1.3	- 62
Veal	7.1	4.9	2.4	1.6	- 78
Total	123.5	133.6	152.1	145.7	+ 18
Poultry meat (ready-to-cook)					
Broilers	8.7	24.0	36.0	47.8	+449
Other chicken	11.9	4.8	3.7	3.0	- 75
Turkeys	3.9	6.6	8.3	10.4	+167
Total	24.5	35.4	48.0	61.2	+150
Total red meat and poultry meat	148.0	169.0	200.1	206.9	+ 40
Fish (edible weight)	11.3	10.6	11.5	12.9	+ 14
Eggs	48.4	42.9	39.3	34.5	- 29
Milk					
Fluid milk and cream	343	322	275	249	- 27
Butter	10.3	7.6	5.3	4.4	- 57
Cheese, American	5.3	5.4	7.1	9.8	+ 85
Cheese, other	2.1	2.9	4.4	7.9	+276
Ice cream	17.4	18.3	17.7	17.2	- 1
Ice milk	1.2	4.6	7.7	7.1	+492
Non-fat dry milk	3.7	6.2	5.5	3.0	- 19
Total, milk equivalent, fat solids basis	729	654	562	544	- 25

Table 2

Retail Prices on Selected Livestock,
Poultry and Dairy Products

Product	Three Year Average				Percent Change 1949-51 to 1979-81
	1949-51	1959-61	1969-71	1979-81	
	¢/lb[1]				%
Beef	78.4	82.1	102.8	234.2	+199
Pork	55.3	56.8	73.6	145.3	+163
Broilers	58.4	40.0	41.2	71.1	+ 22
Turkeys	-	-	53.3	93.9	-
Eggs (doz.)	64.2	55.4	58.6	86.6	+ 35
Milk at stores, whole, (½ gal.)	37.9	48.2	57.5	104.3	+175
Butter	75.3	74.5	86.3	185.3	+146
American cheese	29.2	34.1	50.1	117.6	+303
Ice cream (½ gal.)	85.0	74.3	87.1	181.9	+114
Consumer Price Index (1967=100)	73.8	88.5	115.8	245.5	+233

[1]Except eggs which are ¢/doz., and milk and ice cream which is ¢/half gallon.

Table 3

Per Capita Expenditures on Selected Livestock, Poultry and Dairy Products

Product	Three Year Average				Percent Change 1949-51 to 1979-81
	1949-51	1959-61	1969-71	1979-81	
	$/capita				%
Beef	37.87	52.54	85.53	181.04	+378
Pork	35.78	34.01	46.81	95.17	+166
Broilers	5.08	9.60	14.83	33.99	+569
Turkeys	-	-	4.42	9.77	-
Eggs	19.80	15.14	14.67	19.03	- 4
Fluid milk and cream	30.22	36.10	36.77	60.41	+100
Butter	7.76	5.66	4.57	8.15	+ 5
American cheese	1.55	1.84	3.56	11.52	+643
Ice cream	6.57	6.04	6.85	13.90	+112
Disposable Income	1,362	1,947	3,387	8,057	+492
	Percent of Disposable Income				Change in Share
Beef	2.780	2.699	2.525	2.247	- .533
Pork	2.626	1.748	1.381	1.180	-1.446
Broilers	.373	.493	.438	.422	+ .049
Turkeys	-	-	.130	.121	-
Eggs	1.453	.778	.433	.236	-1.217
Dairy products	3.971	3.437	2.406	2.019	-1.952

Table 4

Production Costs and Gross Margins on Cattle,

Selected Years, 1965-82

Item	Year 1965	1975	1980	1981	1982
					$/cwt.
Feeder Calves					
Nonland costs					
Direct	14.92	30.40	44.80	54.10	47.63
Other[2]	15.61	32.14	83.58	77.89	82.64
Total	30.53	62.54	128.38	131.99	130.27
Land costs, acquisition basis	3.44	7.19	12.57	14.19	15.81
Total costs	33.97	69.73	140.95	146.18	146.08
Price in medium No. 1 feeder steers (400-500 lbs. at Kansas City)					
Nominal	25.30	32.55	84.64	71.89	67.75
Real (1982 $)	77.37	58.33	99.11	76.20	67.75
Cattle on Feed, Midwest					
Direct costs	21.07	38.32	68.85	68.82	66.36
Other costs[2]	3.21	6.94	11.19	12.05	12.79
Total costs	24.28	45.26	80.04	80.87	79.15
Price on Choice steers at Omaha	25.12	44.61	66.96	63.84	65.00
Gross margin over direct costs					
Nominal	4.05	6.29	-1.89	-4.98	-1.36
Real (1982 $)	12.38	11.27	-2.21	-5.28	-1.36

[1]Costs were based on USDA studies including "Costs of Producing Livestock in the United States--Final 1979, Preliminary 1980, and Projections for 1981," ESS, USDA, for the Committee on Agriculture, Nutrition, and Forestry, Committee print 72-550, March 1981.

[2]Includes ownership costs on machinery, buildings and livestock, costs of operator and family labor, and a management return (7% of total costs, except that feeder cattle are not included in the computation of management costs for cattle feeding). An allowance for cull cows was deducted from these costs on feeder calves.

Table 5

Production Costs and Gross Margins on Hogs (Primary Enterprise), Selected Years, 1965-82

Item	Year 1965	1975	1980	1981	1982
					$/cwt.
Direct costs	13.30	32.46	41.07	48.29	42.96
Other costs[2]	9.00	15.33	19.23	20.90	22.17
Total costs	22.30	47.79	60.30	69.19	65.13
Prices on barrows and gilts at 7 markets	21.30	48.32	40.04	44.45	56.50
Gross margin over direct costs					
Nominal	8.00	15.86	-1.03	-3.84	13.54
Real	24.46	28.42	-1.21	-4.07	13.54

[1]Costs were based on USDA studies including "Cost of Producing Livestock in the United States--Final 1979, Preliminary 1980 and Projections for 1981," ESS, USDA, for the Committee on Agriculture, Nutriton and Forestry, Committee Print 72-550, March 1981.

[2]Includes ownership costs on machinery, buildings and livestock, costs of operator and family labor, and a management return (7% of total costs).

Table 6

Production Costs and Gross Margins on Poultry,

Selected Years, 1972-82

Item	Year 1972	1975	1980	1981	1982
					¢/lb.
Broilers					
Feed costs	17.7	27.9	32.8	36.1	29.8
Other costs	10.5	11.5	15.5	15.2	16.1
Total costs	28.2	39.4	48.3	51.3	45.9
Price, 9-city weighted avg.	28.2	45.2	46.8	46.3	44.0
Gross margin over feed costs					
Nominal	10.5	17.3	14.0	10.2	14.2
Real (1982 $)	24.2	31.0	16.4	10.8	14.2
Turkeys					
Feed costs	22.4	35.6	42.9	48.5	40.2
Other costs	11.7	13.8	18.1	17.6	18.7
Total costs	34.1	49.4	61.0	66.1	58.9
Price, 3-city composite	35.8	55.1	66.0	64.0	62.0
Gross margin over feed costs					
Nominal	13.4	19.5	23.1	15.5	21.8
Real (1982 $)	30.9	34.9	27.1	16.4	21.8
					¢/doz.
Eggs					
Feed costs	25.9	41.2	47.0	43.9	36.1
Other costs	17.4	20.6	23.4	28.9	30.7
Total costs	43.3	61.8	70.4	72.8	66.8
Price, 13 metro areas	40.5	62.9	66.9	73.2	70.5
Gross margin over feed costs					
Nominal	14.6	21.7	19.9	29.3	34.4
Real (1982 $)	33.6	38.9	23.3	31.1	34.4

[1]Cost data were based on USDA series as reported in regular issues of the Poultry and Egg Situation, ERS.

Table 7

Production Costs and Gross Margins on Milk Production, Selected Years, 1965-82 and Projected to 1985[1]

	Year							
						Projected		
	1965	1975	1980	1981	1982	1983	1984	1985
	$/cwt.							
Direct costs[2]	3.25	5.29	7.45	8.03	7.53	7.40	8.67	9.20
Other costs[3]	2.60	3.42	5.40	6.00	5.96	6.33	6.71	7.16
Total costs	5.85	8.71	12.85	14.03	13.49	13.73	15.38	16.36
Price received by farmers	4.23	8.75	13.10	13.80	13.50	12.80	13.20	14.30
Gross margin over direct costs								
Nominal	.98	3.46	5.65	5.77	5.97	5.40	4.53	5.10
Real	3.00	6.20	6.61	6.12	5.97	5.12	4.05	4.28

[1]Cost data were based on USDA studies including "National and Regional Costs and Returns of Producing Milk," by Richard J. Fallert, Dairy Outlook and Situation, D5-390, USDA, ERS, September 1982.

[2]Allowance for sales of cull cows and calves deducted.

[3]Includes ownership costs on machinery, buildings and livestock, costs of operator and family labor, and a management return (7% of total costs except family labor and management).