The Source of Better Prices for Cattle Producers

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Background

Many cattle producers are in trouble. Prices have only sporadically been at or above all costs of producing calves during the 1990s. Already difficult cash flow problems for many producers were exacerbated by the record high corn prices in 1996. Out of this period of prolonged economic pressure are emerging stories about bankruptcies, forced foreclosures, and the demise of family farm units. Farms and ranches that have historically had little or no debt are starting to borrow money to stay in business and are exposing equity built up across generations to a risky marketplace. There is a great deal of frustration and anxiety.

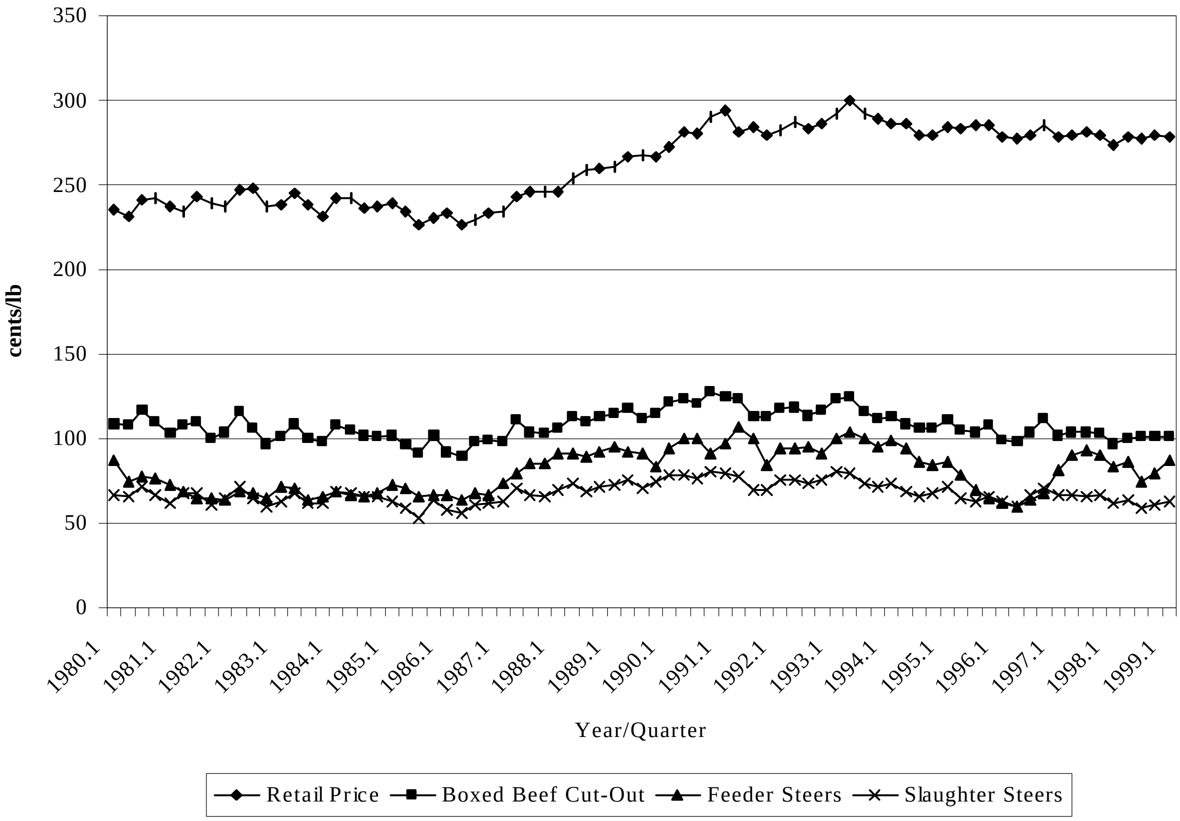
Response to the very difficult conditions has ranged the gamut from resignation to indignation. In 1999, we have seen an explosion in the dialogue surrounding the economic conditions that confront the cattle producer. Many are convinced that the problems are associated with a conspiracy by large packers who are taking the producers' farms and ranches away from them and essentially robbing them of their livelihood. Others lament the perceived problems associated with price discovery for cattle and argue that if we could just outlaw captive supplies and contract arrangements between buyers and sellers, producers' prices would be better. Others see all this as a broader conspiracy and argue that state and national producers associations are aligned with big government and big business and are more oriented toward expanding export markets and contributing to a cheap food supply in the U.S. than they are in looking after the well-being of cattle producers. As the cattle industry struggles forward under the weight of this myriad of perceived problems, accusations, and frustrations, the future of many producers and producing families is being determined by default. In the presence of all the dialogue and all the shouting, it is very difficult to mount industry programs to correct some of the very real economic ills facing the industry. It behooves us to pause and think about what is happening and to try to look at some of these issues in a non-emotional and objective fashion.

One theme that runs through most of the dialogue is that somehow producers need better prices and more money. That is the implicit objective behind the arguments that we should break up large packers, that we should mandate reporting of prices, and that we should outlaw contractual arrangements between sellers and buyers in the cattle business. Out of this comes an important question. If all of these things were done--if we imposed new regulations, outlawed contractual arrangements, and mandated the reporting of prices--*what is the source of the increased dollars to producers?* Where can we reasonably expect improvement in the prices facing beleaguered cattle producers to come from? This is the important question facing the industry during 1999, and it is not, arguably, receiving enough attention.

The Economic Story

Some of the important data that need to be considered are shown in Figure 1. Quarterly prices of Choice retail beef, boxed beef values for Choice grade, Nebraska direct slaughter cattle, and 500-600-lb feeder steer calves in Oklahoma City are all shown on the chart. Presented in this way, the story in these data still does not immediately leap out at the reader. The price levels are different, and that covers up some of the important interrelationships. But before refining these data so that the story they have to tell becomes clearer, one message is apparent: These price and value series have not increased significantly across this 20-year time period. Indeed, compared to levels of the early 1980s and the periodically higher prices since that date, *most of these price series have trended downward during the 1990s*.

The price series in the graph that is of dominant importance is the retail price series. *Retail prices set limits on all the other prices.* If retail prices are going up, there is at least the possibility that all other price series, down to and including slaughter cattle prices and calf prices, can also go up. It is at the retail level that consumers are establishing the value that they place in the Choice beef offering. It is true that we are not looking at the hotel-restaurant-institution activity and we are not paying direct attention to what is going on in the low-price fast-food business. But what has happened over time is that prices tend to get set in the fresh beef business and prices of cuts, ground beef, and other beef products going into these other outlets tend to move in parallel to what is going on in fresh beef. The one exception to this might be in the export arena where prices in some instances have shown an ability to go up in spite of stagnant prices in the domestic U.S. market. But export activity is 10 percent or less of total beef production in the U.S. and is not sufficiently important, at least to date, to be able to pull U.S. retail prices higher.



Source: Red Meats Yearbook; Livestock, Dairy, & Poultry Situation & Outlook, USDA, ERS.

Figure 1. Quarterly Prices of Retail Beef, Choice Boxed Beef Cutout, Feeder Steers, and Slaughter Steers, 1980-1999

There is a message in Figure 1 that can be gleaned from the data even before it is refined. The price sketches show crude spreads between retail price and boxed beef values, and in turn, between boxed beef values and slaughter cattle prices. Slaughter cattle prices then set the value of steer calves, but we need to keep in mind that at the cow-calf producer level of the system, what is going on in corn can be important. This is apparent with the downward spike in calf prices during 1996 that was not accompanied by an equivalent downward move in slaughter cattle prices. It was the higher priced corn that feedyards had to buy that pushed the price of the calves down.

But let's return to the key point. There is a spread or a margin of sorts between retail prices and boxed beef values and between boxed beef values and slaughter cattle prices. If the retail price was increasing, and assuming that the margin the retailer is extracting stays close to what is implicit in the plots in Figure 1, then boxed beef values would go up. If boxed beef values increase, because competition at the processing level would tend to keep the spread that the packer is extracting within some limits, slaughter cattle prices would go up. It follows that when slaughter cattle prices are going up, if corn costs are reasonably stable, calf prices can go up.

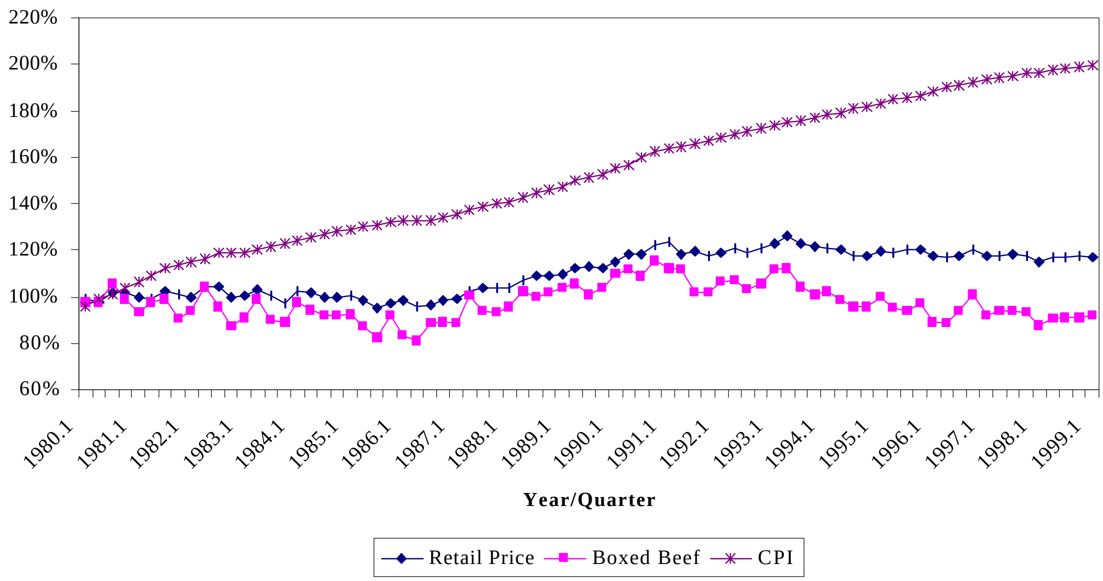
The takeaway from all this is that the big problem in the system revolves around what is going on at the retail level. Overall prices, as measured by the consumer price index (CPI, 1982-84=100), the index that is used by the government to measure increases in the cost of living, went up 63 percent from a base period of 1982-1984 to 1998. The CPI will be around 167 for 1999, which means overall prices will have gone up 67 percent compared to the 1982-84 base period. *Across that same time period, it is clear that the retail prices for beef have gone up very little*. Thus, all of the costs at every level of the system that tend to go up with overall price inflation have not been offset by rising selling prices at the top end of the system. Consumers have not been willing to pay increasingly higher prices for beef across this time period, have not been willing to pay prices that allowed beef prices to "inflate" along with everything else. This is true even though per-capita offerings and per-capita consumption have moved down from a record of almost 95 lb in 1976 to a projected 65 lb to 66 lb in 1999.

It appears that something basic and fundamental is amiss in this system, and that "something" may well be the source of the economic pressure on the producer. We need to keep in mind that once the value is set at the top of the system by the consumer as reflected in the retail price for beef, virtually every other operator along the beef production-marketing continuum is a margin operator. The retailer seeks to earn a gross margin. The packer seeks to earn a gross margin per head. Increasingly, the feedyard would like to buy feeder cattle such that they can establish prices for slaughter animals coming out of the lot and earn some gross margin per head. It is at the bottom, at the producer level, that there is no opportunity to be in the margin business and pass the economic misery down to anyone else. The cow-calf operator buys inputs from large operations, borrows money from a big bank, and cannot pass the burden of decreasing selling prices for calves back down to feed suppliers or suppliers of genetics, machinery dealers, or the banks that lend them money. *The producer is a price taker, a claimant of what is left after all middlemen margins are deducted from the retail price.*

The initial message is clear: No amount of gnashing of teeth and agonizing over profit margins, over concentrated marketplaces, over price discovery, over controversial issues such as captive supplies, or over imports of live cattle or beef from Canada is going to change the fundamental truth that shows up in Figure 1. *The primary source of the cost-price squeeze on the cow-calf operator is the long-standing and persistent inability to pass any of the increased costs of operating throughout the system up to the consumer in the form of higher prices at retail.* The consumer simply has not been willing to pay a higher price for a product offering that we have to recognize has increasingly fallen out of favor and has not met reasonable expectations in level of quality, consistency, and convenience in meal preparation in the changed world of 1999.

This first finding from the data in Figure 1, then, is that retail beef prices have not gone up and have not provided any relief. There is a secondary, but important, consideration here. That is the question of whether or not, even with flat retail prices, the spreads or margins extracted by retailers and/or processors have been unreasonable and have accentuated the downward pressure on prices at the producer level. The apparent refusal of the retail stores to quickly recognize lower cattle and boxed beef prices by lowering retail prices has been the source of considerable frustration to the cattle industry in recent years. Over time, in the interest of progressiveness and efficiency in this system, we would like to see both the packer/processor and the retailer increase efficiency, reduce their cost of operating, and not have to extract increasing spreads or margins. *When the retailers' or the packers' operating margins increase and they extract a larger share of the retail value of the beef product, especially when retail prices are stagnant and flat, the pressure is felt at the bottom end of the system in the form of lower calf prices to the cow-calf operator*. Thus, we have to add the possibility of expanding spreads in the middle of the system to the recognition that retail prices have been flat as reasons for the growing problems facing the cattle producer.

One way to pull a more complete and clear story from the data in Figure 1 is to get away from the problems of having to compare price series that are plotted at substantially different price levels. Figure 2 takes the retail beef prices and boxed beef values presented in Figure 1 and plots them as departures from 1980, the first year in the series. If retail prices in 1999, for example, were at 115 percent of the price in 1980, then the plot starting with 1980 would have worked slightly higher over time. If boxed beef values have gone up over time as a percent of 1980, the 1999 percentage would be above 100 and would show some slight upward trend over time. The CPI is also plotted as a percent of 1980 to demonstrate the comparisons discussed above. Note that it moves steadily higher over the years.



Source: Red Meats Yearbook; Livestock, Dairy, and Poultry Situation & Outlook, USDA, ERS.

Figure 2. Quarterly Retail and Boxed Beef Prices and the CPI, 1980-1999, as a Percent of 1980

Retail beef prices averaged about $2.38 in 1980, declined some compared to that level in the early 1980s, climbed back to higher prices in the early 1990s, and indeed reached, on a quarterly basis, a $3.00 price in 1993. During the past five years, much of the time has been spent in a fairly narrow band of variation around $2.80. The 1998 price was $2.77. If we divide that $2.77 price by the $2.38 price of 1980, then Figure 2 plots a level of 1.16 or 116 percent of the 1980 price for 1998. It is informative to pause for a moment and reflect on what that means. *Choice beef prices at retail, in spite of the fact that the quantity offered on a per-capita basis is down dramatically across that same time period, went up only 16 percent from 1980 to 1998*. As noted above, overall price levels from 1982-84 to 1998 went up 63 percent. The CPI as a percent of its quarter 1, 1980 level went up even more, to a level of 208 percent for quarter 1 of 1999, showing a 108 percent increase from 1980. Thus, we start to see, quite clearly, some of the economic difficulties that were apparent during the period. Any business firm involved in the production and marketing of beef was seeing costs of inputs go up roughly consistent with the 108 percent in overall price increases but was not getting relief in the form of the ability to move the product to consumers at higher prices. Any expansion of the retailers' spreads or the packers' spreads to cover their substantial increases in costs over this time period is going to accentuate the pressure on prices at the cattle producer level.

Other important relationships are apparent in Figure 2. Plotting boxed beef values for Choice grade beef as a percent of 1980 shows that boxed beef values by 1998 were actually down slightly. Combined with the retail price plot, this suggests that the spread being extracted by retailers has gone up, and this is indeed the case. We will come back to this point, but given the price at which they could sell the beef to the consumer, and given the fact that they were seeing increased costs of labor, refrigeration, packaging, etc., the retailer has, in fact, extracted a larger margin over time. This has meant boxed beef values have not been able to show even the modest increase that retail beef prices have shown across the 1980-1998 time period in spite of the 108 percent increase in overall price inflation.

As shown in Figure 3, the same story is apparent as we move down to the other levels. Slaughter steer prices in 1980 in Nebraska were very near levels that we saw for 1998. They actually decreased some during the first half of the 1980s, a period that many analysts have highlighted as having extreme beef demand problems. Prices moved up a bit in the early 1990s with the support of substantial cyclical decreases in supply as we moved from 95 lb of per-capita beef offerings back in 1976 all the way down toward the 65-lb level by the early 1990s. Again, the CPI as a percent of 1980 level is plotted for purposes of comparison.

What is the important message here? We see no increase in boxed beef values, therefore no sustained increase in fed cattle prices, and from that we glean there was no room for sustained increases in calf prices to cover producers' increased cost of equipment, money, labor, insurance, taxes, etc. Indeed, the plot that shows Oklahoma City calf prices as a percent of 1980 prices is periodically lower in recent years, especially in 1996, and reflects no sustained move in either direction. This is obviously going to create a very difficult set of economic circumstances for the producer who has been exposed to substantial increases in costs of operation and has no ability to pass them on in the form of higher selling prices for calves.

To this point, it appears the primary source of the economic difficulties in the beef business is the inability to move retail and consumer-level prices higher. *Higher prices to the consumer would provide relief down through the system, and if we have progressive and efficient middlemen who do not need to extract a rapidly increasing margin, higher retail prices would pull prices of calves up*. Of course, higher prices would have stimulated increased production and a bigger herd size and there would have periodically been price difficulties for producers, but that would have been part of a growth industry instead of one that is being forced to get smaller over time.

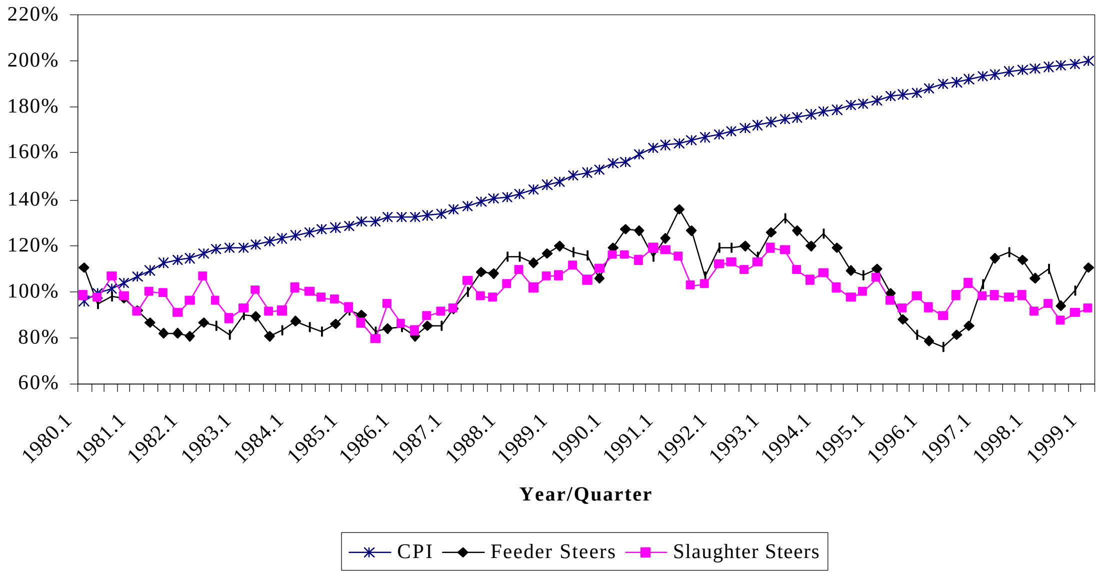


Figure 3. Quarterly Feeder Steer and Slaughter Steer Prices and the CPI, 1980-1999, as a Percent of 1980

Figure 4 documents this problem with retail prices pulled from Figure 1 with a second scale added to the graph. Per-capita consumption of beef is also shown. Note the dramatic downward trend in beef offerings on a per-capita basis during the late 1980s. In the presence of this substantial decline in offerings, retail prices were able to move higher. But in the 1990s, with quarterly per-capita offerings varying around 17 lb, retail prices have been stagnant and have trended lower since the price peak in late 1993. Again, it appears that the problems facing the beef business are at the top end in terms of the negative reception the consumer has shown the product offering, not in the form of how we are buying and selling the product or whether the processing sector is concentrated, integrated, or consolidated.

This perception becomes somewhat clearer if we look at Figures 5 and 6, respectively. If the packing sector is profiteering and extracting a substantial increase in margin at the expense of the producer, then their price spreads should be increasing significantly over time. It would not be surprising to find the price spread going up some 63 percent from 1982-84 to 1998 because, as we noted above, that is how much overall price levels have gone up. Since processors have to buy materials, pay labor, and invest in new equipment and buildings, it would not be surprising to see a substantial increase in the spreads they extract to cover those increased costs--an increase paralleling in magnitude the 63 percent increase in the CPI from 1982-84 through 1998. As an outside observer looking for evidence of technological progressiveness and efficiency, one would hope that the spread does *not* go up faster than the cost of living, as measured by an index such as the CPI. If that were the case, we are dealing with a sector that is not very progressive and not showing technology-based efficiencies.

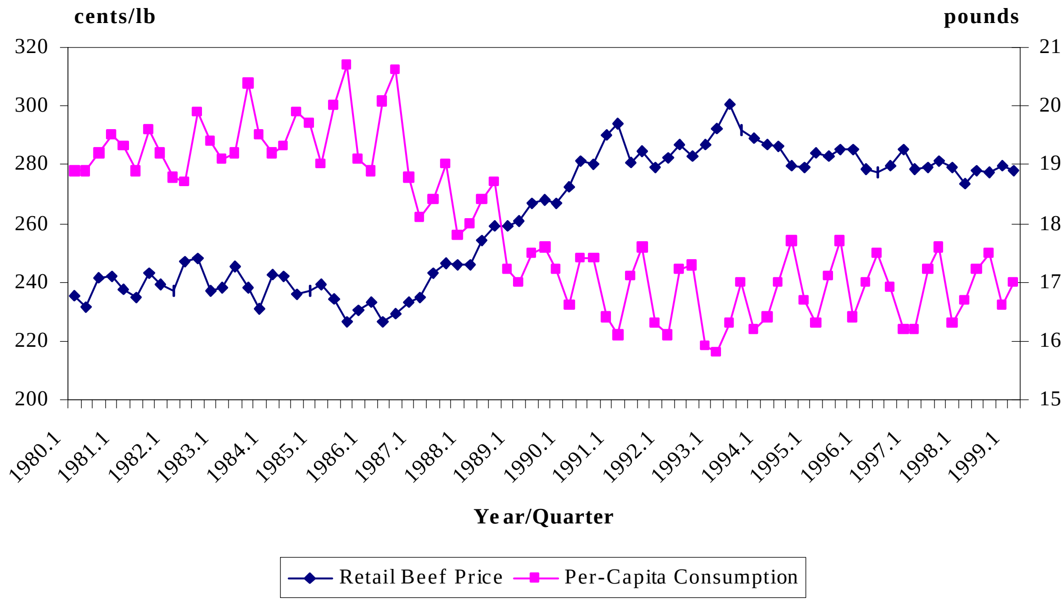


Figure 4. Quarterly Retail Beef Prices and Per-Capita Consumption, 1980-1999

Figure 5 shows nominal or observed price spreads for packers as calculated by the U.S. Department of Agriculture (USDA) in what they label the farm-to-wholesale price spread. The figure also shows inflation-adjusted or deflated spreads, and that spread compared to the mid-1980s is at lower levels in the late 1990s and has trended down slightly over time. *What Figure 5 tells us is that the spread extracted by the packer has not gone up as much as the increases in the overall price level as measured by the CPI across the period from the early 1980s to 1998.* This is clear when you examine the deflated price spread where all levels have been adjusted back to 1982-84 as a base period. The slight downward trend in that spread over time suggests that packers have been able to offer their services and earn whatever profit margins they are earning without having to expand the price spread at a rate equal to the rate of increase in the CPI. It is hard to mount a huge storm of criticism against the performance of the packing sector when we recognize that the large plants and the 350-head-per-hour slaughter lines have offset some of the pressures that otherwise would have been there to push prices at the producer level still lower.

There is no suggestion here that the large packers are not making profits. In fact, it has been widely recognized that in recent years, with excessive cattle weights and relatively large total beef supplies, some of the large packers have made good money. Table I shows data gleaned from annual reports of IBP, Inc., a publicly held firm that is the largest slaughterer of cattle in the world. Presented as a percent of total assets as recorded in the annual reports, net income back to 1988 presents a variable picture that ranges from essentially zero up to 12.7 percent. As a percent of stockholders' equity, net income, as reported in the annual reports, is higher but is also quite variable. As a percent of net dollar sales, net income ranges from essentially zero in 1991 to a high of 2.04 percent in 1995.

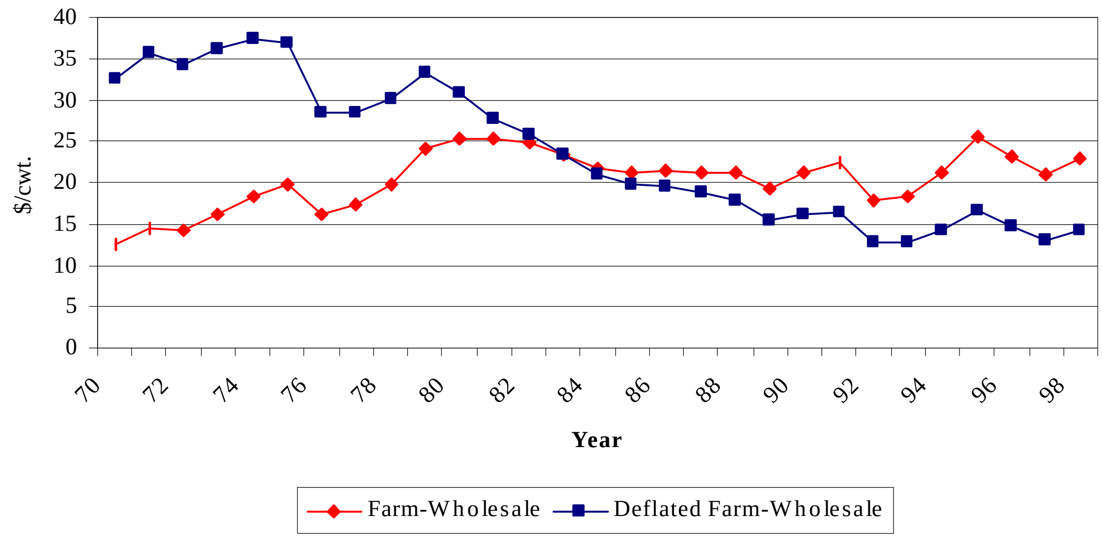


Figure 5. Nominal and Deflated Farm-Wholesale Price Spreads for Beef, 1970-98

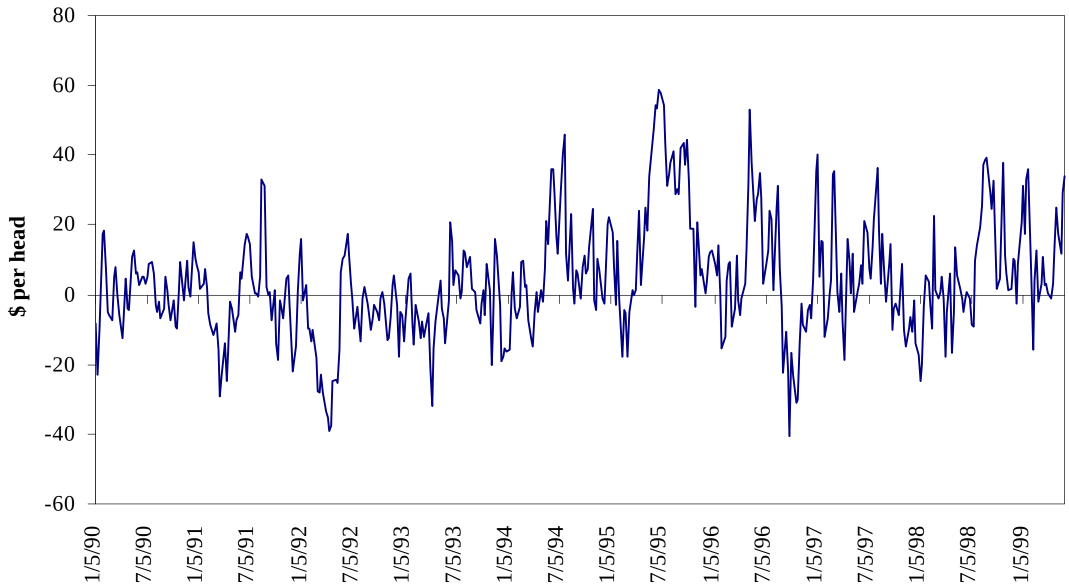
Table I. Selected Data for Iowa Beef Producers, Inc., 1988-98

Year	Total Assets	Net Earnings	Net Earnings as % of Total Assets	Net Earnings as % of Stockholder Equity	Net Earnings as % of Net Sales	Capital Expenditures
1998	3,008,096	190,007	6.3	13.6	1.48	245,692
1997	2,838,941	117,014	4.1	5.8	.89	458,816
1996	2,174,495	198,735	9.1	16.5	1.58	170,664
1995	2,027,601	257,923	12.7	25.2	2.04	160,626
1994	1,865,463	182,289	9.8	23.3	1.51	135,481
1993	1,538,097	90,083	5.9	14.7	.78	74,212
1992	1,499,427	63,616	4.2	11.9	.57	35,511
1991	1,450,480	1,353	.1	.3	.01	24,605
1990	1,524,615	42,347	2.8	8.3	.41	118,619
1989	1,352,919	35,325	2.6	7.1	.39	111,966
1988	1,324,462	63,328	4.9	12.7	.69	78,093

Source: Financial Summary in IBP, Inc., Annual Report for 1998 *(http://www.ibpinc.com/,* May 1999*)*. Assets, earnings, and expenditure data are in thousands.

Capital expenditures, which include subsidiary purchases, are also shown in the table, and it is interesting to note that those tend to be highest when the profit picture of the firm seems to be better. That finding is not surprising in that firms will tend to invest in new equipment and technology for new and expanded product lines when there are profits to be reinvested in the firm or in acquisitions. It is not possible given the information that is made publicly available on the Internet to disaggregate the company's operations and determine what part of it came from beef. The 1998 annual statement released by the company indicates in a qualitative way that profitability of the pork sector was very good during 1998, and one would expect that to be the case given the disastrous plunge in slaughter hog prices late in the year. There is no indication in the report that there were any major problems of profitability in the beef operation, but there is also no evidence to suggest that beef has been the only or even the primary factor in terms of profitability in recent years. Notice that the best profit returns, as measured by percent of total assets or percent of stockholders' equity, were not in the most recent years but in 1995 when there was a precipitous downward move in slaughter cattle prices. Boxed beef values were down over 10 percent in the spring months of 1995 compared to year-earlier levels. Total meat and poultry supplies were up 4 to 5 percent, and with continuing demand problems, fed cattle prices moved lower. Operating margins were apparently attractive during 1995.

Figure 6 adds additional insight to what has been happening at the packer level. Packers' margins, as estimated by industry analyst Andy Gottschalk, are shown. Gottschalk's widely reported margin estimates parallel the general picture of profitability in Table I. When profits were small in 1990, weekly margins averaged some $1.11 per head. When profits were essentially zero in 1991, Gottschalk's estimates averaged -$2.06 per head. Obviously, the margins are very variable. They tend to be best, of course, when the cattle feeding sector was caught holding cattle to heavier weights as in 1994 and into early 1995 and again throughout the year of 1998. Average margins were $20.82 in 1995 and $6.86 in 1998. Through late May, they had averaged $12.34 during 1999. Across the 1990 through 1999 period, the overall average is $3.88 per head.



Source: Estimates by Andy Gottschalk, LFG, LLC, (8480 E. Orchard Road, Suite 1250, Englewood, CO 80111)

Figure 6. Estimated Packer Margins, Weekly, 1990-1999

Figure 7 shows a plot of what the USDA labels the wholesale-to-retail spread, which is essentially the spread that is extracted by retailers to cover their costs and profit margins. This spread has gone up across the time period more rapidly than has the spread at the packer level, and when it is adjusted for inflation, it is essentially flat during the 1980s and 1990s. The simple message of this plot is that the retailers have passed essentially all of the 1982-84 to 1998, 63 percent increase in costs back to their suppliers (packers) or up to their customers in the form of expanded margins. The flat "deflated" plot essentially says that retailers' margins have expanded largely in lockstep with overall increases in cost as reflected by the CPI.

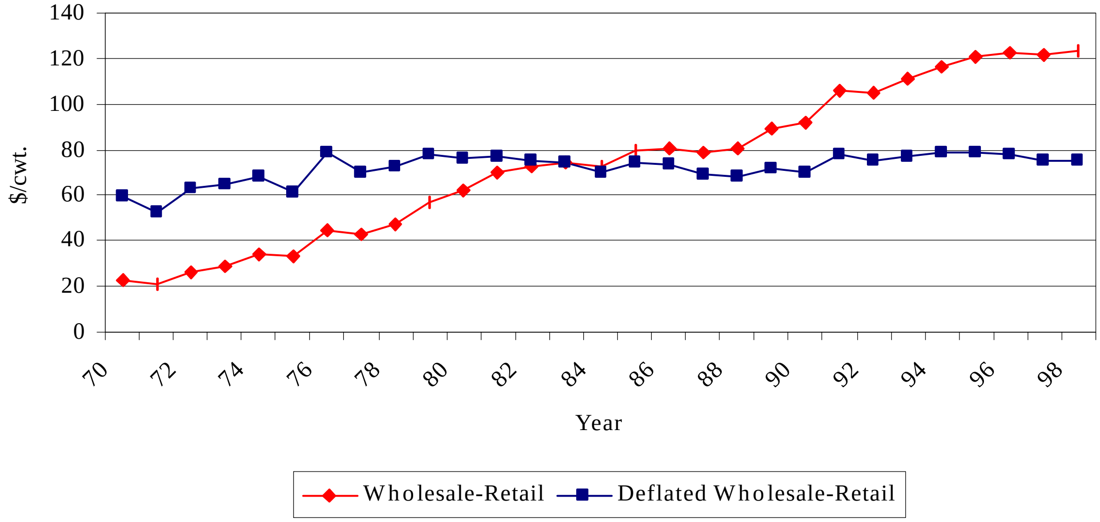


Figure 7. Nominal and Deflated Wholesale-Retail Price Spreads for Beef, 1970-1998

Whether we are discussing spreads at the packer or retailer level, it is important to recognize that these spreads do not indicate profitability. They reflect costs and expanding costs of operation and/or profitability, but it is impossible to disaggregate the data to determine which is growing most rapidly.

Let's return to the original question. *What is the source of added dollars for the cattle producer?* How is it that increased regulation of the marketplace, constraints on the price discovery process, and mandated reporting of all prices in terms of trade are going to expand the dollars available to the cattle producer? Will these added constraints and reporting responsibilities instead just add costs and prompt an unavoidable expansion of the price spreads?

What we have seen in this brief analysis suggests that there will not be many added dollars forthcoming from changing the way we do business in the current environment of very weak demand in the beef business. It is possible that getting better information on the price discovery process would help us more nearly price to value for our calves and move us toward a higher quality, more consistent supply of beef over time. But none of this has any obvious source of added dollars in the short run.

Are we to try to pull more dollars away from the packer in a sector where, in the presence of expanded responsibilities with close-trimmed product, etc., across recent years, the price spreads have trended down slightly in inflation-adjusted terms? This year and last year, the impression is that the large firms are making lots of money and some dollars could be pulled back to producers if their profit streams were more nearly consistent with what some argue would be reasonable. If the packing firms were averaging, after giving proper credit to hide and by-product values, $20 per head and if you cut that $20 in half, you are talking about only $1.00 per hundredweight in the slaughter cattle market. And there is no reasonable economic argument to suggest that that is possible or even advisable. The actual margins appear to be $5 per head or less on average. We need to keep in mind that processors tend to invest in new products and new technology when they are making money, and the lesson that was learned in late 1998, when some pork processors had been forced out of business due to bad profit pictures during 1995-97, should not be forgotten. That sector got caught without adequate slaughter capacity, and certainly there is nothing to be gained by pushing processors beyond levels of performance you should reasonably expect from them and earnings that they might reasonably be expected to garner.

The Bottom Line

Like it or not, producers have to recognize that regulating the marketplace or controlling how packers can do business is not going to push calf prices up in any significant way. There is no huge pile of dollars down this path, no return to prices that will consistently cover producers' costs. The facts simply do not support the claims that producers are being robbed by middlemen. What the facts *do* show are price spreads being extracted by retailers that are growing dollar for dollar with their possible increases in costs. At the packer level, the facts show spreads that are growing slower than general price inflation, perhaps testimony to the low-cost operations of the huge beef packing plants of the 1990s.

The facts show another hard truth: *Any* increase in middlemen's spreads, *even increases economically justified by rising costs*, will push producers' prices down if retail prices are stagnant because of weak demand for beef. In expanding on this now-obvious point, we come to a better understanding of where the needed dollars are: *They are in the pockets of the modern affluent consumer.* If we will support and push the emerging programs that are finally starting to move to a high-quality, consistent, and consumer-friendly (read "convenient") beef product offering, we will save some of the cattle-producing families that will otherwise be pushed out of business by a marketplace that has no conscience. To get that done, we will need investments in new technology and in new product offerings by the big packers. Those investments are starting to happen, and in the interest of every cattle producer across the country, I hope they will grow into a tidal wave that responds to profit opportunities and goes after and captures consumers' food dollars--lots of them. It would help everyone in the system, especially the producer, if the "cap" of flat prices at the retail level can be eliminated by a modernized product offering. That would open up the possibility of a return to the growth industry that we saw in the 1960s and 1970s and give the producer a better chance of profits in a well-managed operation.

The Research Institute on Livestock Pricing has conducted or coordinated applied research on demand, price discovery, concentrated markets, and many related areas of interest to producers, producer groups, trade associations at all levels of the system, policy makers, and market regulators. The research findings are available at www.aaec.vt.edu/rilp on the Internet, or anyone interested can contact Institute Director Wayne Purcell as follows:

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