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The Main Street _____ Economist *Commentary on the rural economy*



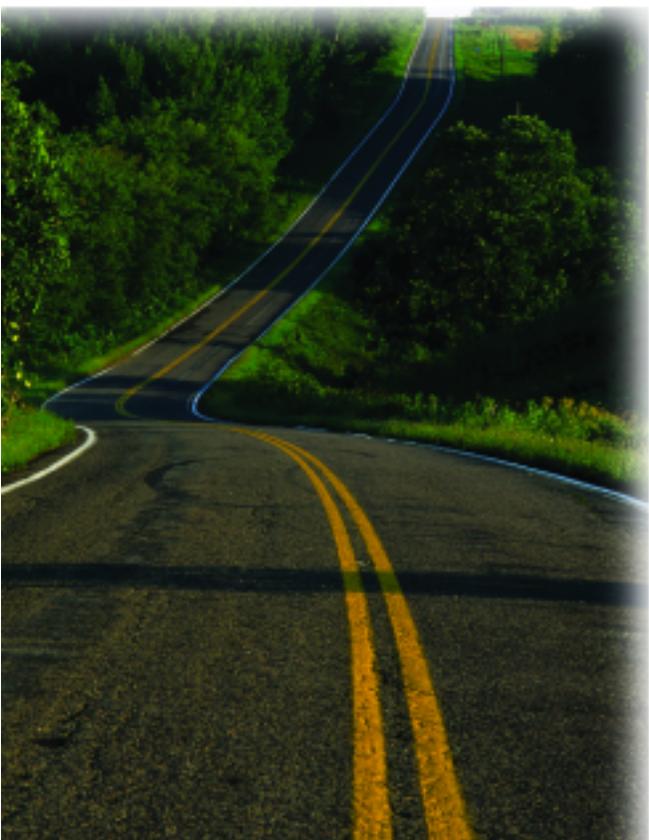
The New U.S. Meat Industry

Alan Barkema
Vice President & Economist
Center for the Study of Rural America

Nancy Novack
Research Associate
Center for the Study of Rural America

A new meat industry is rapidly emerging in the United States, as food retailers, meat processors, and farms and ranches coalesce into fewer and larger businesses. The industry's rapid consolidation in recent years has triggered alarms that the industry's new giants in retailing and processing could drive up food prices for consumers and drive down livestock prices for producers. Should public policy respond to the industry's consolidation? And how can *all* participants in the industry—producers, processors, retailers, and consumers—benefit from its new structure?

This article studies the striking changes in the meat industry in two steps. First it examines why the industry is changing. Then it considers how consumers and industry participants are affected. While current evidence is scant that market power has hurt either consumers or producers, the industry's rapid consolidation nevertheless warrants vigilance. At the same time, public policy might also play a role in



ensuring that all participants in the market benefit from its new structure.

Why is the Meat Industry Changing?

Two powerful economic forces are driving the meat industry to a more compact structure: food demand and technology. Consumer food demand is shifting toward food products that are easy to prepare while also promising safe eating and improved nutrition. The food industry's efforts to fulfill consumers' food needs have shifted competitive balances among food companies, triggering broad efforts to maintain or gain a competitive edge by capturing economies of size and trimming costs. The result is a transformation in food retailing, meat processing, and livestock production.

Food retailing. Two trends stand out in retail food sales. First, the market is notoriously slow growing, with food spending rising much more slowly than consumer incomes. Second, consumers are eagerly buying more conveniently prepared food products, despite the sluggish growth of overall food spending. The share of food expenditures that pays for food processing, packaging, and transportation is climbing, while the share that pays for raw farm commodities is falling, down from nearly a third in 1970 to just a fifth in 1999. And nearly 40 percent of the consumer's food dollar is spent in restaurants and other eating establishments—the ultimate in food preparation convenience.

With consumers seeking more convenient dining options, traditional food retailers are locked in a competitive battle with restaurants and other food service establishments, boosting their offerings of prepared or ready-to-eat foods. Food retailers also face new competition from mass merchandisers like Wal-Mart and Target and warehouse clubs like Costco. The competitive force of these new entrants is underscored by Wal-Mart's rapid ascendance from the nation's tenth leading food retailer in 1996 to number one in 2000.

An important factor that makes the

mass merchandisers such potent competition is the cost savings they reap by applying advances in information technology to distribution systems and inventory control. Supermarkets and other traditional food retailers aim to keep pace with their new competitors by developing similar efficiencies in inventory management and distribution systems. A part of that strategy is to merge into larger businesses that can streamline product delivery from food plant to retail shelf. As a result, the overall market share of the nation's top four food retailers (including Wal-Mart) has doubled since the mid-1990s to more than a third in 2000.

Meat processing. As in food retailing, shifts in consumer demand and efforts to trim costs are driving consolidation in the meat processing industry. The poultry industry was the clear leader in developing products that promised consumers both nutrition and convenience at attractive prices. The industry was also the first to shift to a "conception to consumer" supply chain structure some four decades ago that ensured consistent, high quality of its new consumer-oriented poultry products.

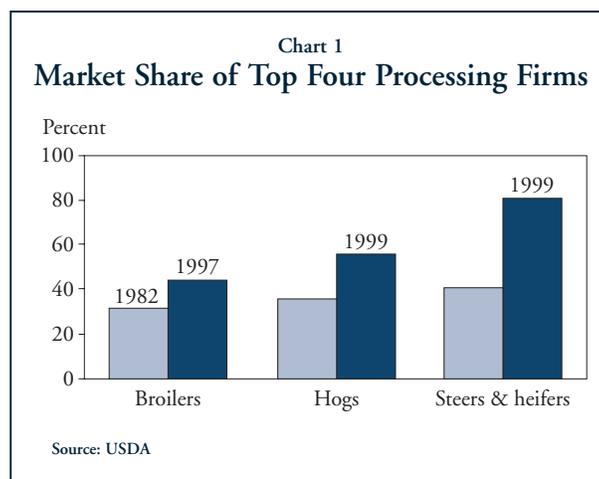
The poultry industry's efforts paid off with a surge in market share, largely at the expense of the beef industry. During the past two decades, per capita poultry consumption nearly doubled, while beef consumption fell and pork consumption was flat. Some estimates suggest retail beef prices were about 50 percent lower in 1999 than if demand for beef had been as strong as in 1980.

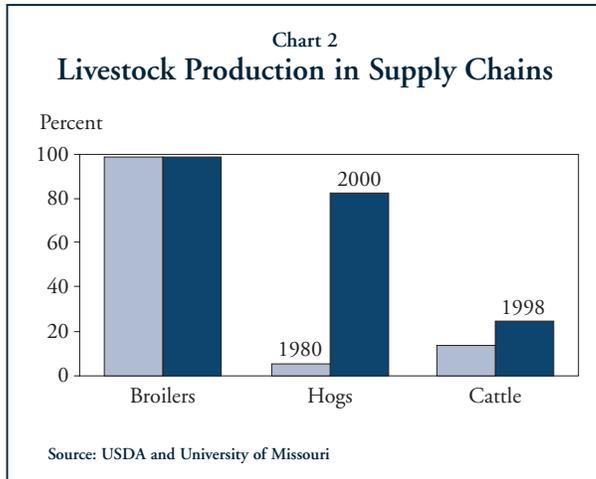
With increased competition from poultry, profit margins in the beef and pork processing industries tightened. These conditions encouraged a cost-saving consolidation, especially in beef processing (Chart 1). Economies of size played a key role in generating cost savings, with tight profit margins weeding out small,

high-cost plants and focusing expansion on newer and larger, low-cost plants owned by fewer processing companies. For example, a recent U.S. Department of Agriculture study found that operating costs (excluding livestock procurement costs) in the largest meat processing plants averaged about 25 to 30 percent less than in many smaller plants.

Livestock production. As in retailing and processing, most evidence suggests that economies of size are a key factor driving production onto larger and fewer farms and feedlots. While some farm survey data indicate bigger farms have little or no cost advantage over the most efficient smaller farms, bigger farms appear better positioned to take advantage of new production technology. By spreading investments in improved genetics, modern buildings, and high-tech equipment across big production volumes, bigger farms can hold down average production costs. And bigger farms have more financial staying power when profit margins are tight.

Supply chains are also rapidly taking root in the beef and pork industries, connecting livestock producers to meat processors (Chart 2). One factor spurring supply chains is the bigger financial risk of investments in large, high-tech production and processing facilities. Unit production costs in big processing plants rise quickly when processing lines are operated at less than optimal volume. Similarly, big invest-





ments in modern production facilities expose livestock producers to a greater risk of loss if livestock markets turn down. Supply chains help both processors and producers manage these business risks by ensuring a steady flow of livestock to processing plants.

A second factor spurring the development of supply chains in the beef and pork industries is a new focus on the consistently high quality of food products that today's consumers demand. Learning from the poultry industry, hog and cattle producers are working hard to improve their products. For example, new "grid" pricing techniques designed to reward producers for producing animals that yield higher quality meat are becoming more common in both pork and beef production. And new producer-led cooperatives and alliances are emerging that link producers and processors with a common goal of producing higher quality, consistent products that generate more profit.

Should Public Policy Respond?

The pace and degree of change pose two critical questions for the meat industry and policymakers alike. First, has the type and amount of consolidation enabled big food retailers and meat processors to drive up food costs or push down livestock prices? And second, what might industry participants and policymakers do to ensure that the emerging industry benefits everyone involved—consumers, producers, and businesses?

Market studies suggest that while con-

centration levels merit close watching, there is little evidence of market power at work in either meatpacking or food retailing. While findings are mixed, the fact remains that consumers clearly are spending less and less of their income on food. This trend underscores the central trade-off that policymakers and regulators must face in the rapidly changing food system. On one hand, fewer firms *can* exercise market power, hurting

producers or consumers. On the other hand, emerging technologies are producing economies of size that make the food system more efficient.

After more than a decade of rapid change, the time has arrived for both market participants and public officials to consider ways the new meat industry can benefit all involved. Three steps seem worthy of consideration: antitrust enforcement, policies to help producers participate in the new meat industry, and programs to help rural communities take best advantage of the new meat industry.

The U.S. Justice Department has exhaustive procedures for monitoring actual and potential violations of antitrust laws. A critical factor in antitrust reviews of the meat industry is the definition of the "market." Market can be defined in two important ways: by geography and by product. There is no easy formula for defining markets. The issue of geography is particularly important to producers. With fewer processors, local market access is a big concern, especially to smaller producers who may have greater difficulty shifting to more distant markets.

New initiatives to help producers prosper in the new meat industry will almost certainly be a major focus for policymakers in the period ahead. The new meat industry seems to offer two alternatives for producers. The first is to become a large producer with strong, direct ties with meat processors or retailers. The second is for

smaller producers to join forces and produce specialty products for niche markets.

More generally, producer-led attempts to form alliances may deserve new forms of public assistance. From a public point of view, producer-led alliances could provide important market counterpoint to retailer or processor-led alliances. Such producer efforts could be enhanced through additional product research, business assistance, or financing through new public-private partnerships.

A final focus of policy might be on the impact of the new meat industry on rural communities. For many Heartland communities, livestock production and meat processing are economic cornerstones. Public-private partnerships loom as important ways to maximize the economic benefits of the new meat industry while minimizing some of the potential problems, including environmental issues and social issues arising from the integration of the industry's labor force in rural communities.

Looking ahead, communities may approach the new meat industry with a much more fundamental question. Is there an economic payoff if the meat industry locates in my community? Researchers offer relatively few good answers to this question, in part because the answer depends strongly on unique, local conditions. There is little question that many rural communities will count on the meat industry for economic gains in the years ahead. Local initiative and control may be important factors in how much the meat industry boosts the economic outlook for many rural communities.

Note: A more detailed analysis of the new meat industry will appear in the Second Quarter 2001 issue of the Bank's *Economic Review*.

Survey of Agricultural Credit Conditions

Federal Reserve Bank of Kansas City

December 31, 2000

Highlights from the fourth quarter survey.

- District farmland values climbed in the fourth quarter of 2000, finishing their strongest year since 1997. In 2000, district cropland values rose nearly 4 percent while district ranchland values surged nearly 7 percent. All district states posted strong gains in farmland values during 2000 with Kansas and the Mountain states leading the way. Many district bankers noted that recent gains in farmland values came in response to non-farm demand factors and hefty government payments rather than good times in the industry.
- The district farm commodity price index rebounded in the fourth quarter, reaching the highest level in three years. Prices for corn, soybeans, cattle, and wheat rose while prices for hogs fell in the quarter. Since the end of the year, livestock prices have gained ground while crop prices have slipped.
- Farm credit conditions were mixed in the fourth quarter. The demand for farm loans improved in the quarter, but loan repayment rates slowed, and loan renewals or extensions moved up. Overall, farm credit conditions held up remarkably well in 2000, buoyed by large government payments. But the industry's heavy reliance on government support has many district bankers concerned about the industry's future.
- Farm interest rates edged down in the fourth quarter. At the end of the quarter, interest rates on new farm loans averaged 10.47 percent for operating loans, 10.30 percent for feeder cattle loans, 10.22 percent for intermediate-term loans, and 9.67 percent for real estate loans. Since December, farm interest rates have declined along with national money market rates.

Note: 285 bankers responded to the fourth quarter survey.

Kendall McDaniel, associate economist with the Center, can respond to questions at 816-881-2291, or kendall.l.mcdaniel@kc.frb.org.

Farm Real Estate Values

December 31, 2000
(Average value per acre by reporting banks)

	Nonirrigated	Irrigated	Ranchland
Kansas	\$650	\$1,048	\$384
Missouri	962	1,194	633
Nebraska	887	1,441	370
Oklahoma	519	756	369
Mountain states*	348	1,117	220
Tenth District	\$697	\$1,179	\$382
Percent change from:			
Last quarter+	0.68	1.06	0.93
Year ago+	3.94	4.01	6.83
Market high	-17.39	-18.12	-5.86
Market low	76.08	73.40	128.86

* Colorado, New Mexico, and Wyoming combined.

+ Percentage changes are calculated using responses only from those banks reporting in both the past and the current quarter.

Source: Federal Reserve Bank of Kansas City

Selected Measures of Credit Conditions at Tenth District Agricultural Banks

	Loan demand (index)+	Loan Fund availability (index)+	Loan repayment rates (index)+	Average renewals or extensions (index)+	Loan-to-deposit ratio* (percent)	District farm commodity price index (1980=100)
1998						
Jan.-Mar.	120	108	93	109	65.9	94.3
Apr.-June	123	100	78	118	68.0	92.2
July-Sept.	112	99	58	136	68.4	78.7
Oct.-Dec.	107	108	55	138	66.9	80.7
1999						
Jan.-Mar.	105	113	56	143	65.7	86.0
Apr.-June	107	107	71	127	66.5	87.8
July-Sept.	103	90	74	126	67.7	87.0
Oct.-Dec.	100	99	86	115	67.7	91.2
2000						
Jan.-Mar.	107	95	92	108	67.1	97.9
Apr.-June	112	78	86	108	70.4	97.0
July-Sept.	103	85	84	112	70.8	90.3
Oct.-Dec.	106	90	82	120	70.9	100.3

* At end of period.

+ Bankers responded to each item by indicating whether conditions during the current quarter were higher than, lower than, or the same as in the year-earlier period. The index numbers are computed by subtracting the percent of bankers that responded "lower" from the percent that responded "higher" and adding 100.

Source: Federal Reserve Bank of Kansas City