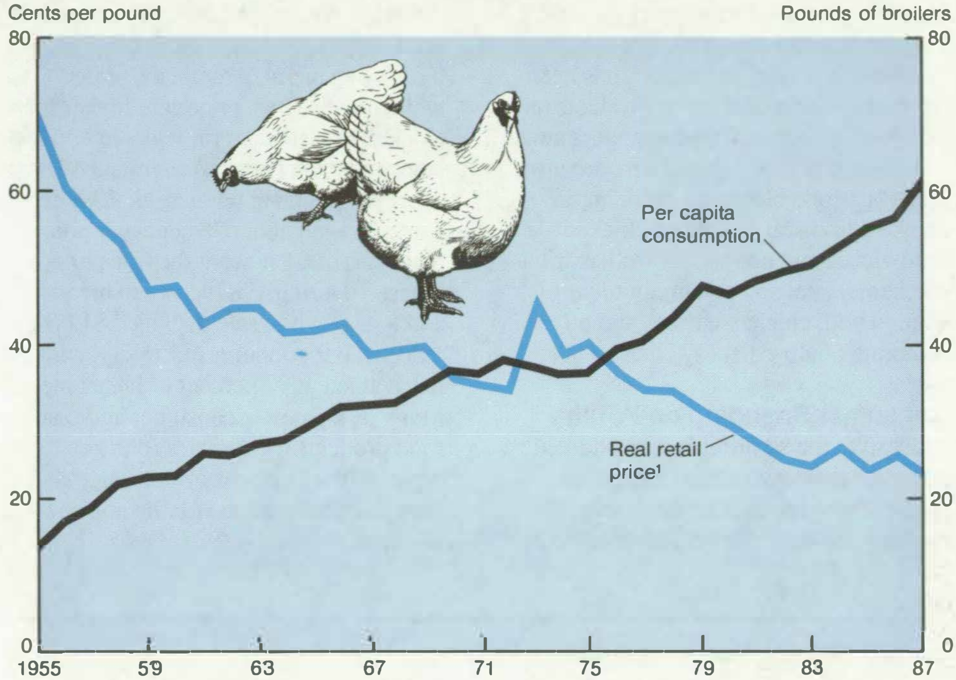
America's Poultry Industry

Robert V. Bishop and Lee A. Christensen
(202) 786-1714

Over the past three decades, poultry's share of the American diet rose dramatically. Between 1955 and 1987, Americans tripled their consumption of chicken and turkey, from 26 to 78 pounds per capita. Meanwhile, consumption of red meats declined slightly. In 1955, poultry represented about 16 percent of total meat consumption, while in 1987 its share had more than doubled to 34 percent. The extraordinary increase reflects changes in income (and perhaps in tastes and preferences), but most of this comes from poultry meat's relatively inexpensive retail price and wide availability in many different forms.

In 1955, broiler prices were higher than those for ground beef. At that time, the amount spent on a pound of ground beef bought only about 11 ounces of whole frying chicken. Now, many cuts of chicken and turkey enjoy distinct price advantages over some red meats. In 1987, one pound of ground beef cost consumers as much as 27 ounces of whole broilers. This price advantage has helped increase poultry consumption. For example, consumption of chicken rose from 14 pounds per capita in 1955 to 60 pounds in 1987. The retail price of a pound of broiler meat averaged 55 cents in 1955 and 78.5 cents in 1987. In constant 1967 dollars, these prices translate to 68.8 cents per pound in 1955 and only 22.9 cents in 1987. In other words, after accounting for inflation, the price of chicken fell 67 percent between 1955-87 *(figure 1)*.

Figure 1. As Prices Dropped, Americans Consumed More Broilers



¹Adjusted for inflation.

Consumption of mature hens (those birds which provided eggs either for table use or hatching purposes before slaughter) fell from an average of 7.5 pounds per capita in 1955 to 2.5 pounds in 1987. As per capita egg consumption dropped, fewer laying hens were needed or replaced, and mature hen slaughter fell correspondingly. Turkey consumption experienced similar growth to broilers, increasing from 5 pounds per person in 1955 to 15 pounds in 1987.

While the change in the prices of chicken and turkey compared with beef explains much of poultry's popularity, other aspects accentuated the climb. Increases in income permitted consumers to spend less of their total earnings on food, while allowing greater consumption of all meats.

In addition, consumers' perceptions of meat products appear to have changed, and these changes would also explain part of poultry's gains. Concerns about the nutritional value of foods, especially meats, appear to have significantly influenced the demand (and consequently production) and the marketing of meat products. Poultry meat has benefited from articles in the popular press describing it as being lower in fat, calories, and cholesterol than red meat.

Over the past 10 years, the development and introduction of many new poultry products, which reduce preparation time and put poultry in front of consumers in many forms, also favorably affected poultry consumption. In 1955, chicken was typically found in meat cases only in the form of whole birds. Fresh and frozen turkey meat was readily available only around the Thanksgiving-Christmas holiday season, usually as whole birds. Some frozen chicken products were available, but they often lacked flavor and appeal. Now, fresh broiler and turkey meats (whole birds and parts) are readily available year-

The authors are agricultural economists with the Livestock, Dairy, and Poultry Branch, Commodity Economics Division.

round. A wide selection of fresh and frozen further-processed products can be found in grocery stores, many requiring very little preparation time *(figure 2)*.

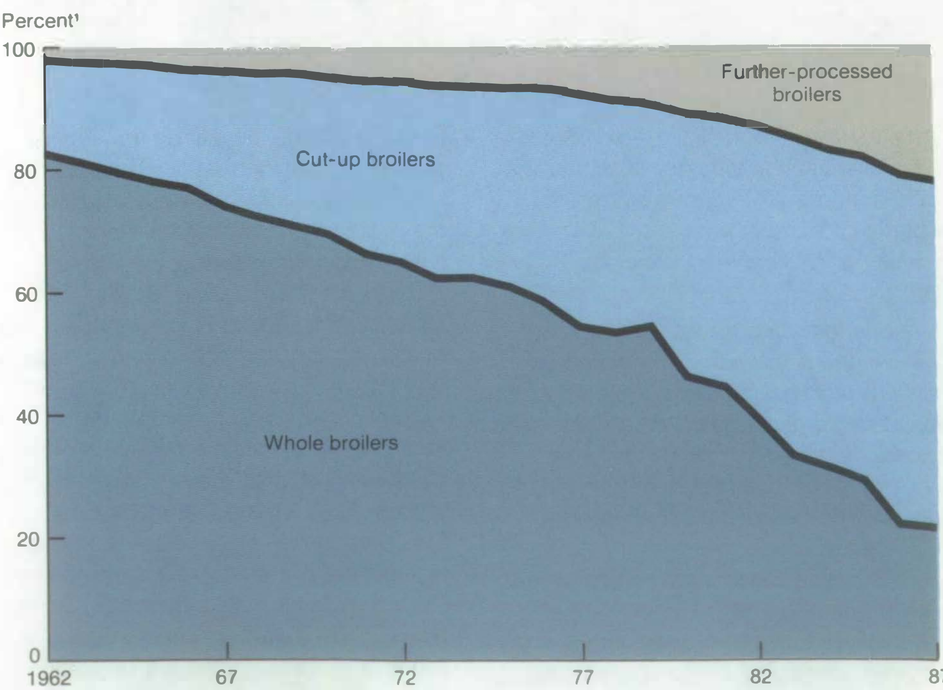
One of the biggest changes has been the proliferation of chicken products on fast-food menus, giving consumers an alternative to hamburgers. There are also more fast-food chains specializing in chicken products—offering chicken sandwiches and nuggets as well as fried chicken. Hotel and restaurant menus abound with chicken entrees and other elaborate poultry dishes.

Consumer Spending on Poultry

Despite the significant growth in consumption, per capita expenditures on poultry have been relatively stable. The primary reason is the very large drop in the retail price of whole broilers over the past 30 years.

Beginning in the mid-1970's, sales of broiler parts exceeded those of whole birds. In general, Americans prefer white meat. Thus, prices are higher for chicken breasts than for legs. In 1960, chicken breast (ribs on) averaged 47 cents per pound at wholesale. Chicken legs averaged about 38 cents per pound that year, or 81 percent the price of breasts. During 1987, chicken breasts and legs at wholesale averaged $1.06 and 39 cents per pound, respectively, with legs valued at 37 percent of breast meat. Many of the newer consumer and fast-food products use boneless chicken breasts. While prices of this value-added item have been quite volatile at the wholesale level, boneless breasts cost about the same as the better cuts of beef steak at retail.

Figure 2. Chicken Meat Is Increasingly Available in Many Forms



[1]Percent of broilers slaughtered under Federal inspection and certified ready-to-cook.

In the 1980's, broiler processors who responded to growing demand for white meat had to find new uses and markets for dark meat. Mechanically deboned meat, primarily leg meat, goes into the production of chicken franks. Some dark meat works its way into international trade channels, with legs and thighs making up most of our exports.

Today's Poultry Industry

While poultry production occurs in many States, most of it is concentrated in certain regions and in a few States. Over 80 percent of the broilers are produced in 10 States, with Alabama, Arkansas, and Georgia the leading producers. The leading turkey producing States are North Carolina, Minnesota, and California. The top egg producing States are California, Indiana, Pennsylvania, and Georgia.

The three components of the poultry industry—broilers, turkeys, and eggs—all make significant contributions to consumers' diets and to farm income. The most dynamic sector is the broiler industry. Production grew from 34 million birds in 1934 to over 5 billion in 1987, or about 20 chickens for every man, woman, and child in the United States. Liveweight production in 1987 was over 21 billion pounds and was valued at $6.7 billion at the farm level.

During the period of rapidly growing broiler output, the number of individual poultry producers declined significantly and the size of remaining firms rose. The number of farms producing broilers and other meat-type chickens dropped from around 42,000 in 1959 to around 30,100 in 1982. Broilers raised per farm climbed from around 34,000 to 117,000 during the same period. Most of the production in 1982 came from 19,000 farms selling over 16,000 birds each. The trend toward fewer and larger farms appears to be continuing today.

The organization of the modern poultry industry is very different from that of 30 or 40 years ago. Production shifted to vertically integrated firms, which centralize and control production and marketing decisions through the use of contracts or ownership. The producing firm oversees all stages of operation from the hatchery through slaughter to shipping meat to grocery stores. Modern firms, much larger and better capitalized than their earlier counterparts, can take advantage of the economies of large-scale production and encourage rapid adoption of biological and technological advances.

Efficiencies in producing both broilers and turkeys are seen in the dramatic declines in feed requirements for weight gain. In 1940, broilers required more than 4 pounds of feed for each pound of weight gained. Today, the figure is near 2 pounds. The reduced time required to raise, or grow-out, broilers is one of the more dramatic changes in the industry. Genetic improvements and new poultry management techniques cut the grow-out period from 14 weeks in 1940 to 7 weeks or less today.

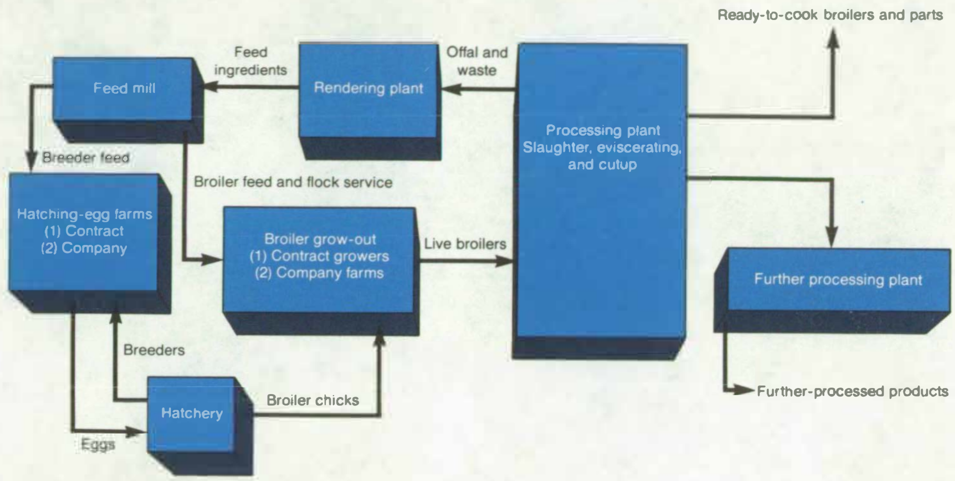
What do these advances mean for the American consumer? The costs of producing broiler and turkey meats are now much lower than they would otherwise be. In turn, this means lower prices for consumers.

The typical modern poultry producer contracts out the job of raising the birds to individual farmers or growers. The producer provides the chicks and the feed to the grower, but then processes the fully grown birds in its own facilities. Controlling the production of poultry meat from chick to packaged product is what is meant by a "vertically integrated producer" *(figure 3)*.

One of the more dynamic forces in the poultry industry over the past 20 years has been the integration and concentration of the industry, from point of production through marketing. As a result, large poultry companies have emerged as industry leaders and, in some instances, are linking up with beef and pork companies. These large firms produce most of the poultry meat we eat. For example, the largest four broiler firms controlled 38 percent of total production in 1987, up from 12 percent in 1960. The largest eight controlled 55 percent, up from 18 percent, and the largest 20 firms, 78 percent, up from 32 percent in 1960 *(figure 4)*. The top 4, 8, and 20 turkey firms produced 30 percent, 50 percent, and 88 percent of production in 1987.

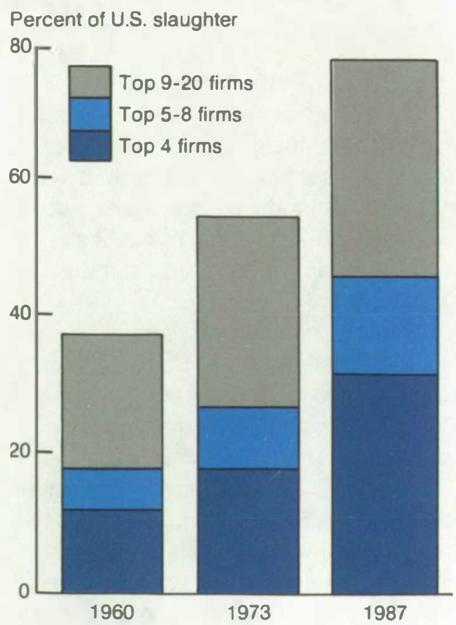
One of the forces behind the concentration and the growth of firms in the poultry industry is the economies of size captured by integrated firms. The strong push to develop products tailored to specific markets has also been a factor. Some companies elect to focus on production and marketing of whole birds, broilers, or turkeys. Others specialize in cutup or deboned products or providing chickens of specific sizes to customers,

Figure 3. Many Modern Broiler Firms Control Production from Chick to Consumer Product[1]



[1]Diagram illustrates functions of a typical integrated broiler firm.

Figure 4. Large Companies Produce Most of the Broilers We Eat[1]



[1]Market share of top broiler firms slaughtering broilers under Federal inspection.

The popularity of poultry is helped by its relatively inexpensive price and wide availability.

while still others deal in fresh or frozen prepared products. The scramble for market niches has resulted in an increasing array of products—leg packs, skinless breast fillets, whole baked hens, turkey "hams," turkey dogs, and turkey salami, to name a few.

Poultry companies tend to focus on regional markets, but there is a definite trend toward large firms producing for national markets. Other firms will continue to focus on small markets ignored by larger firms. While such varied orientations will likely continue, benefiting consumers who want a wide variety of poultry products, the increased importance of national markets will be accompanied by larger advertising campaigns. By advertising specific products, firms are enhancing product recognition and developing consumer brand loyalty.

Future Directions

The poultry industry of the future will need to meet steadily increasing consumer demand for wholesome meat, while addressing issues of health and safety, waste management, and water and air pollution. The industry will continue efforts to produce healthy and nutritious products at reasonable prices. It will address public concerns about the vexing issues of salmonella and cholesterol. For example, efforts to eliminate salmonella contamination in production and processing will be combined with consumer education programs on proper storing, handling, and preparation techniques.

In recent years, broiler and turkey producers expanded dramatically to meet strong demand. Many consumers who are sensitive to prices and various health issues, and who want a nutritious meat in convenient forms, have increasingly turned to chicken and turkey. The industry will continue to develop and market new products in response to ever changing consumer tastes and preferences.

Poultry producers will incorporate new management and technological changes. Growth regulators and biotechnology are just two developments which may increase production through better feed efficiency. As such innovations become available, they will be rapidly adopted due to the heavy investment in research and the competitive nature of the industry. Faster growing birds bred to produce more of the desirable white meat will benefit both consumers and producers. But the industry must continue to invest in new production and processing facilities to meet future consumer demands. For example, broiler production capacity must double by the year 2000 just to meet a conservative annual production growth rate of 2 percent.

Water quality, waste management, and other environmental concerns will continue to challenge poultry producers. Prevention of major disease outbreaks will become increasingly important as poultry and egg flocks grow and geographic concentration increases. Industry concentration creates manure and processing by-products, which can create both environmental and public relations problems. While concerns about odor and pollution of surface and groundwater are not new, the intensity of these concerns is likely to increase and new approaches to reduce the volume of waste materials and water are needed. ■

Reference

Lloyd A. Lasley, Harold B. Jones, Jr., Edward H. Easterling, and Lee A. Christensen. *The U.S. Broiler Industry*, AER-591. ERS, USDA, November 1988.