Changes in consumer preferences will disrupt future agricultural markets

According to a May 6, 2021 *Wall Street Journal* article, "Chicken shortage sends prices soaring, and restaurants can't keep up," by Heather Haddon and Jacob Bunge, "At the start of 2021, chicken looked like a bargain for U.S. restaurants. Closures and dining room restrictions had contributed to swollen stockpiles of chicken in cold-storage facilities. Boneless skinless chicken breast, the poultry industry's flagship product, last year averaged around \$1 a pound, according to Urner Barry. Now boneless chicken breast is trading at \$2.04 a pound, the firm said. Over the past decade, the price averaged about \$1.32 a pound (https://tinyurl.com/jvb8kb6k).

The authors attribute part of the reason for the price increase to the "chicken sandwich wars of recent years." The summer grilling season is also expected to maintain the upward pressure on chicken supplies.

Given the higher prices, we are tempted to ask one of our favorite questions: "Will high prices cure high prices?" After all that is what happens in grain markets (see our recent article on this topic at http://www.agpolicy.org/weekcol/2021/1066.html).

But there are significant differences. In the case of grain markets, farmers have little pricing power because a large number of producers face a relatively small number of buyers. As farmers respond to high grain prices by producing more, prices fall quickly. But with low prices farmers seek to maintain or increase production levels in hopes of reducing their per unit cost of production.

In the chicken industry, the landscape looks quite different. On the supply side, a handful of very large firms control a significant portion of total production and on the demand side a relatively small number of firms account for a large percentage of wholesale poultry purchases, giving them a countervailing pricing-power that independent grain farmers lack.

In this case, we are less interested in analyzing the short-to-medium run supply-demand balance in the broiler industry than in examining the long-term picture.

Between 1970 and 2020, US per capita demand for chicken (broilers) increased from 25.3 pounds (boneless retail weight) per capita to 67.4 pounds per capita. Over that same 50-year period, US per capita demand for pork remained steady (1970: 48.5 pounds; 2020: 48.8 pounds) while beef demand fell by 30 percent (1970: 79.8 pounds; 2020: 55.8 pounds).

Most analysts agree that the shift in the per capita consumption of beef and chicken over the last 50 years was largely driven by two factors. First, chicken is less expensive than beef. Second, and we think more important, the general perception was that chicken was a healthier source of animal protein than beef. The fat in a good steak was seen as artery clogging, while chicken was seen as a lean meat. The fact that much of the chicken was breaded and deep or pan fried was ignored.

Beef producers voted for a beef checkoff under the supervision of the USDA to fund a program to increase the demand for beef. One of the results was an advertising campaign, "Beef. It's What's For Dinner." Pork producers were in the game with their own checkoff and campaign slogan, "Pork. The Other White Meat." Chicken producers, dominated by large integrators, chose to spend their money advertising their own brands instead of seeking a USDA supervised checkoff program.

In 2021, there is a new kid on the block: plant-based protein (often referred to as "fake meat") which can simulate the taste and texture of beef, pork, and chicken. Despite the slightly

derisive moniker "fake meat" and significantly higher price, plant-based protein has begun to gain public acceptance and market-share.

So, we go back to the "chicken question" and ask, "why?"

In our reading we have identified three issues. Like with chicken, some believe that plant-based meats are healthier than their animal-based counterparts. To the extent that consumers avoid breading and deep or pan frying, there may be some truth to that belief.

But more importantly, we see a combination of animal welfare and environmental concerns as the more significant drivers in this shift in protein sourcing.

In a vox.com article "How chickens took over America's dinner plates, in one chart" Kelsey Piper discusses the environmental impact of beef production and the animal welfare issues involved in chicken production (https://tinyurl.com/56c568e6).

With regard to the latter she writes: "Most chickens...spend every minute of their short lives in crowded, ammonia-filled indoor spaces, as we saw in a recent undercover investigation into a farm that supplies chicken for Costco. They're also bred to grow too fast, putting pressure on their joints and making normal chicken behavior impossible."

While many farmers are concerned about governmental regulation in the areas of the environment, including global warming, and animal welfare, we think the bigger factor will be consumer behavior. Over the last 50 years, cost and health concerns were significant drivers of the changes we have seen in the meats US consumers purchase.

As firms involved in plant-based protein production are able to reduce the cost of their products, animal welfare and environmental concerns will increasingly drive the US consumer's protein sourcing decisions.

Farmers who factor health, environmental, and animal welfare concerns into their production decisions are more likely to maintain their markets than those who don't. We already see that happening in egg and milk markets. Consumers will pay double or more for products that address their health and ethical concerns.

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