CoBANK KNOWLEDGE EXCHANGE

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Redefining Farm-to-Fork: Costco Sets New Protein Precedent

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Key Points:

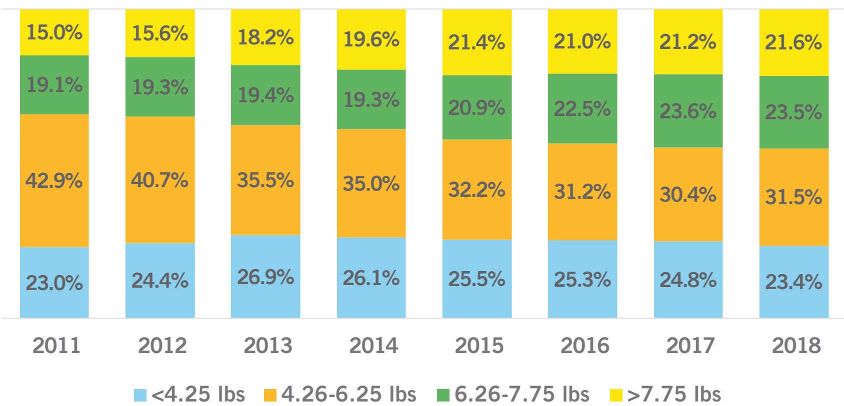
- In September 2019, the U.S. poultry sector is expected to gain a new producer as retailer Costco is slated to open its new chicken complex in eastern Nebraska.
- Costco's $400 million chicken processing plant will redefine "farm-to-fork" as a food retailer takes ownership of the chicken supply chain all the way to the farm level.
- If successful, others in food retail or foodservice could make similar efforts of deeper integration into meat production, but beef and pork will prove more challenging than poultry due to the greater complexity of supply chains and market risk.
- Some foodservice companies with relatively high profit margins will be discouraged from diversifying into meat production and processing where margins are typically lower.
- Chicken remains the best opportunity to build a fully integrated supply chain, in addition to secondary and further processing opportunities in all three major proteins.

Introduction

In April 2016, Costco announced plans to build a poultry processing complex in eastern Nebraska with a large portion targeted to supply the company's well-known rotisserie chickens sold at retail locations nationwide. Costco sells more than 90 million rotisserie chickens each year, so the announcement raised numerous questions about how the nation's third largest retailer will orchestrate the construction and operation of a $400 million poultry complex. Costco's entry into the U.S. poultry sector could mean changes ahead in the meat sector at large.

Never before has the U.S. seen a retailer integrate its meat supply to the farm level and take on direct exposure to the risk of animal husbandry, including feeding, animal welfare, harvesting, trade, disease and distribution. Of the numerous poultry complexes built in the last five years, there are many features that make this complex different. Nonetheless, if Costco's foray into production and processing is successful, it could be the model for other food retailers and foodservice companies to vertically integrate into other protein sectors like beef and pork.

EXHIBIT 1: U.S. Chickens Processed by Size (Pounds)



Source: USDA

Rotisserie: The Loss-leading Golden Goose

The importance of Costco's rotisserie chicken program to the company's business model is hard to overstate. Costco's sales of rotisserie chicken have grown by more than 8 percent annually since 2010 – more than three times the growth rate of total U.S. poultry consumption. Costco has also maintained its price of $4.99 per chicken. Costco's rotisserie chicken is so popular with its customers that it has its own Facebook page with over ten-thousand followers and is referred to as "CRC." This is a product among few others that serves as an important traffic driver for the retailer's average store size of 145,000 square feet. The rotisserie chicken section is strategically placed at the back of the store.

However, just as Costco's rotisserie chicken program has grown, the availability of the chickens that Costco relies on has dwindled. In today's U.S. poultry sector, just 10 percent of poultry is sold as a whole bird, down from 22 percent thirty years ago. Furthermore, as an increasing share of poultry is being sold as parts or further processed products, bird weights have continued to climb with less than a quarter of the birds raised in the U.S. today meeting Costco's weight requirements of six to six-and-a-quarter pounds. (*See Exhibit 1*.) With all of these market dynamics, Costco's rotisserie chicken program accounts for more than a quarter of the whole birds sold at retail, according to CoBank estimates.

When Costco's new poultry plant opens in September 2019, the company will begin an eleven month ramp-up period with the goal of processing 100 million birds per year and producing about a third of the rotisserie program in-house. The remainder of the facility will process for chicken parts.

We see this decision by Costco to bring its poultry needs in-house as a result of three primary factors:

1. **Surety of supply:** Costco's rotisserie chicken program is a priority product that drives customer traffic. And with declining supplies of whole birds at the targeted weight, Costco will be able to ensure the availability of supply going forward.

2. **Visibility up the chain:** Costco's plant will allow the company to target and remove costs to make the $4.99 price point sustainable over the long-term. Furthermore, with dozens of birds being cooked in-store simultaneously, consistency of bird weight is critical for food safety and product quality. By bringing this production in-house, Costco will be able to improve the consistency of bird weights and quality specifications.

3. **Cost control:** Costco hopes to benefit from cost savings in the three major inputs of meat production – feed, water and labor. Feed is the primary cost in chicken production, and with Nebraska being the third biggest corn producing state and fourth biggest soybean producer, available grain supplies will likely lead to more favorable basis levels relative to where most U.S. poultry is produced in the Southeast. Being located near grain production also provides for an environmental benefit with poultry litter marketed as fertilizer. Water is an ever growing concern for U.S. agriculture, and with Nebraska situated over the Ogallala Aquifer, water availability will be far less of a concern in the years ahead. The third and perhaps most significant issue is labor, which is a growing concern for U.S. meat processors.

By bringing production and processing in-house, these three drivers are expected to reduce Costco's cost per bird by 10 to 35 cents, according to Costco CFO Richard Galanti.

Copying Success

Costco's poultry complex is more than just a multi-million dollar experiment from a retailer known for doing things differently. If the Costco plant is successful, other major food retailers will likely make a business case for bringing animal protein needs in-house.

This trend has already been set in motion in the dairy sector, where companies like Kroger, Walmart, Safeway and others own fluid milk, ice cream and cheese production facilities to protect important traffic drivers for the store. Walmart's entrance into milk processing came just last year when it opened its $165 million facility in Indiana. The key difference between these dairy investments and Costco's chicken plant is that Costco's integration reaches all the way to the farm, highlighting the new level of risk exposure Costco is taking on to protect an important product line.

Food retail or foodservice businesses looking to extend their reach in the animal protein supply chain, though, will need to evaluate a number of risks to justify the investment of time and capital required to build their own production capacity:

1. **Whole animal utilization:** Many retailers and restaurants utilize only a small portion of the animal in their operation and so would be required to distribute the remainder of the production to other channels, customers or exports.

2. **Negative profitability in production:** Meat production on both the husbandry and harvesting sides of the supply chain can have very volatile and at times negative margins.

3. **Food safety risk:** The chief concern of many protein consumers is food safety. Traditionally, retailers and foodservice companies have left this risk to be managed by their supply chain partners.

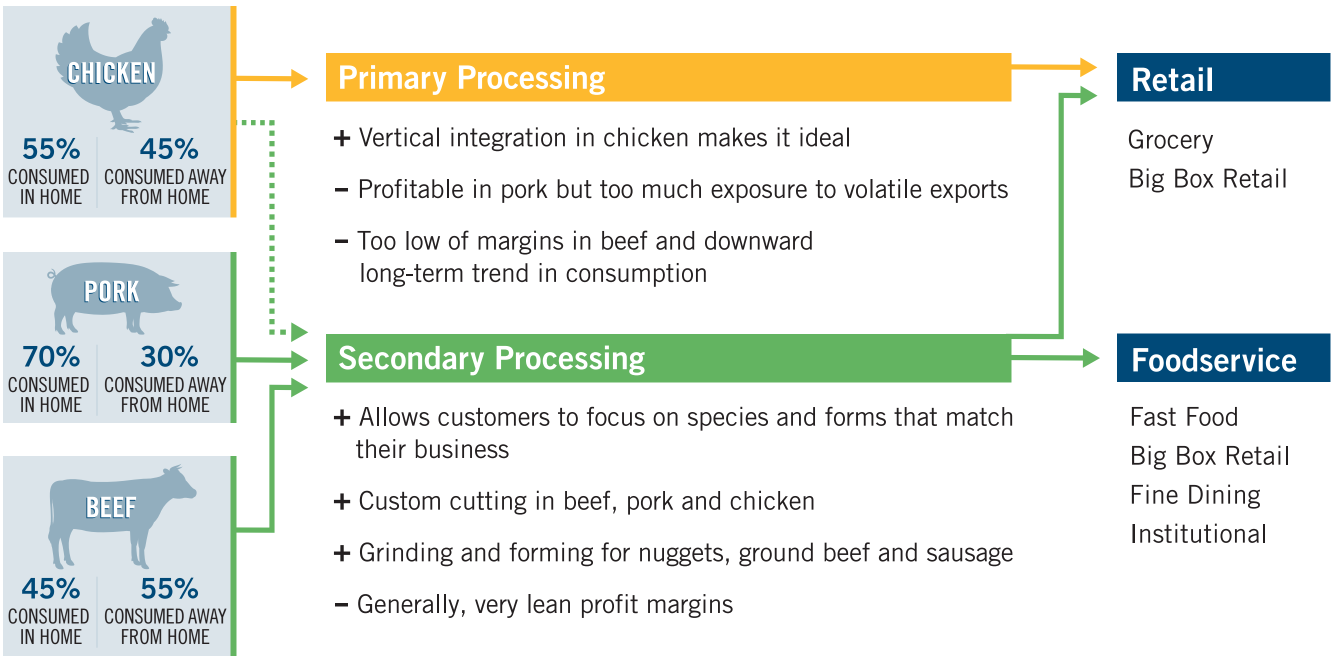
4. **Numerous supply chain links:** Many sectors of animal protein production have numerous and seasonal links in the supply chain, which adds significant complication and volatility to earnings.

Sectors to Watch

Considering all of these factors, there are currently few opportunities to successfully duplicate Costco's model of bringing animal production and processing in-house. (*See Exhibit 2.*) While margins in food retailing are typically very thin, margins in fast food, fast casual and fine dining are often significantly higher than in meat production. These higher margin companies are tasked with weighing the possible strategic advantage of bringing meat production in-house with the dilution of their company's profit margins that would result.

Beef packers have historically yielded very tight margins despite today's strong profitability. This will dissuade most retailers and food service providers; with declining per capita beef consumption, it would be unlikely to meet their return objectives. Many beef customers also have very different demands in terms of cuts and forms. For example, the beef demanded by a fast food company is very different than that demanded by a high-end white tablecloth restaurant. However, the beef sector with its diverse products and customers lends itself more to investments in the secondary processing sector like custom cutting and grinding.

EXHIBIT 2: Opportunities for New Entrants into the U.S. Meat Sector



Source: CoBank

Vertical integration into pork via the Costco model is also unlikely, but for very different reasons than beef. Unlike beef, margins in pork processing have been quite strong in recent years, and production growth over the last decade has been positive. Pork processing falls short of being a good candidate for investment due to its very large exposure to export market risk, with one in every four pounds of U.S. pork exported. While exports have been a positive long-term story for the pork sector, grocery or restaurant chains are loathe to expose themselves to volatile export markets, particularly in the current political environment. But there is opportunity in the secondary and further processing sectors where processed pork holds a significant share of U.S. pork consumption from lunch meat to bacon, sausages and hams. These are all major categories for both in-home and away-from-home pork consumption, and there are a number of important restaurant and grocery customers who put select processed pork categories very high on their list of profit-drivers.

Of the three major proteins, poultry is the most appealing for investments and acquisitions across the supply chain. It is no surprise that Costco chose poultry to make its first foray into meat production. The sector has experienced six straight years of strong profitability, per capita consumption continues to rise, exports are at levels between that of beef and pork and are diversified geographically, the supply chain is fully vertically integrated and is therefore the least impacted in a recession. There are many foodservice chains that are poultry specific and are growing rapidly in the U.S. with expanding store sales and store locations. Many of these foodservice chains use a specific part of the bird, such as wings, breast, and tenders, that significantly limit the ability to integrate through harvesting and processing. Opportunities for further integration in poultry will likely be focused in secondary and further processing rather than primary processing.

Conclusion

With the new Costco chicken complex about a year from opening, the jury is still out on whether a major meat customer can justify the capital and effort of integrating its supply chain as Costco is doing. However, current estimates point to major cost savings for Costco, in addition to benefits from surety of supply and supply chain visibility.

Copying Costco's model of bringing meat production and processing in-house across other sectors of the U.S. meat sector will be difficult, particularly for beef and pork that bring additional supply chain complications and risks. Nonetheless, if successful, Costco's leap into chicken production and processing will undoubtedly prompt questions across agricultural supply chains, and send food retail and foodservice companies back to the drawing board to rethink business models.

CoBank's Knowledge Exchange Division welcomes readers' comments and suggestions. Please send them to KEDRESEARCH@cobank.com.