



## Retail Margins

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Producers are asking where the retail dollar is going throughout the beef supply chain. Is one sector getting an excessive proportion? However, to understand this issue fully one must also ask what margin is being made? To do that one must look at what it costs to get beef to the end consumer. Before we start, let's review the difference between price spreads and margins.

### Price Spread and Margins

Price spreads, gross margins, and net profits measure different components of the spread between what farmers receive and consumers pay. **Price spreads** measure the difference between prices of an equivalent quantity of product at different marketing levels. **Gross margins** refer to the difference between dollars paid and dollars received for beef by a particular firm. They represent the tab for a packer's or retailer's labor cost, packaging, overhead, other costs and any net profit. **Net profit or loss** is the measure of the difference between gross margin and the total operating costs of a firm. A **contribution margin** is between gross and net margins in that it accounts only for variable costs.

### Producer and Packer

Most producers are familiar with the cow/calf and feedlot end of things. So we'll start with a finished steer of 1350 lbs selling at \$85/cwt (Canfax 2009 annual average) to the packer. The packer has procured this animal for \$1,147.50 and it is turned into boxed beef. Using a 60% yield this animal will produce 810 lbs of carcass hot and 784 lbs once cooled. The cutout value of \$1.63/lb (Canfax 2009 annual average) provides a value of \$1,278 boxed. Add to this a drop value of \$75/head for offal's and hide and the packer now has a gross value of \$1,353, less the procurement cost provides a gross margin of \$205.50 for the packer. Remember these are gross and not net margins. Kill, fabrication, and packaging costs are estimated to be around \$190/carcass for a large efficient plant (including SRM removal)<sup>1</sup>.

### Diminishing Volumes

To calculate the retailer/processor margin we must first calculate the total meat that comes from a 784 lb carcass. As an industry standard, it is noted that every 100 lbs of live weight there will be a 58% yield to get to a cold carcass equivalent. To get to retail another quarter of the volume will disappear leaving 42 lbs of saleable boneless beef. So after boning, breaking and shrink this carcass will produce 572 lbs saleable beef at retail. This difference in the volume of product sold at each level is important. It means that for every pound of beef sold at retail 2.36 lbs were bought from the feedlot.

### Retail Value

There are a wide variety of beef products sold at retail ranging from high valued middle meats to trim. Statistics Canada reports a simple average retail price of seven beef cuts that is around \$5.83/lb for 2009. This simple average does not account for difference in volume which is sold at higher and lower values. Middle meats which only account for 30% of a fed carcass but valued much higher are weighted the

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<sup>1</sup> George Morris Centre, April 2010

same as end meats which account for 58% of the volume and trim which accounts for 12% of the volume. In addition, these prices do not account for featuring or loss leaders. Using Nielsen<sup>2</sup> data which records actual sale data and thus accounts for featuring and loss leaders provides a retail beef price of \$4.19/lb – that is 28% lower than the Statistics Canada price. It should be noted that these two prices trend together and it is their magnitude which is different.

It should be noted that only 52.4% of Canadian beef production (including slaughter cattle exports) stays in the domestic market. Of that 84% of the meal occasions are sourced from retail and 16% from foodservice<sup>3</sup>. So for every 100 lbs of beef produced in Canada only 44 lbs are sold at retail. Since the entire carcass is not sold at retail this makes any valuation based off of retail prices skewed – with prices received at foodservice and from exports being higher. It should also be noted that 46% of beef sales at retail is ground beef (with a portion of this coming from non-fed cattle and imports). However, it is the best data source that is available for this type of analysis.

## Retail Costs

Of a 572 lb carcass only 448 lbs would show up at Canadian retail with the rest being exported or going to foodservice. But not all of the 448 pounds is sold as meat. There are a variety of yield losses and shrink between the purchase by the retailer and the purchase by the consumer. One cannot say *the cost from the packer + storage + transportation + wrapping + labour + reasonable profit = the retail price of beef*. For example, a top sirloin from the packer at \$8.50/kg (\$3.85/lb) cut into steaks yielding around 76% - removing fat, gristles, nerves, blue skin resulting in a 24% loss. Therefore, taking the \$8.50/kg for the top butt divided by 76% the retail value becomes \$11.18/kg (\$5.07) for the steaks. This yield obviously varies for each primal and what it is being cut into.

In addition, most retailers would historically grind older product but with E-coli this practice is largely gone. There is always some degree of loss at retail either in the cooler from damaged boxes or on the shelf. This results in approximately 6% of beef on the shelf that does not sell and in turn must be discarded. There is also loss from shrink (2-3%). For the purposes of this example we will use an average 21% for yield loss, unsold product and shrink<sup>4</sup>.

It has been estimated that half of the cost for a retailer is in processing and transportation – these do not change with the cost of the product. There is transportation to distribution centers (typically paid by the packer) and transportation to the actual stores (paid by the retailer). There is the cost of storage at distribution centers and at the store as well as the cost of the meat counter space – this can go to poultry or pork very simply if they provide larger retail margins. Transportation from the distribution centers to the retail stores is estimated at \$0.033/lb and warehousing and storage at \$0.31/lb<sup>5</sup>.

Processing can be very basic in cutting sub-primals into cuts or more involved with value-added products. For now we will only look at fresh beef at the meat counter. Costs at the store include labor (7.5-10% of gross sales), and packaging materials (2-5%). We will ignore overhead costs such as advertising, refrigeration, shelf space, rent, management, etc.

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<sup>2</sup> Nielsen Market Track, Fresh Meat (RW+FW), National XNFD Grocery Banner, 52 week periods Ending December 19, 2009; Average Retail Price.

<sup>3</sup> National Eating Trends, NPD, 2008

<sup>4</sup> Assumes 50% ground beef with 9% shrink and unsold product and 50% other product with 24% yield loss plus 9% shrink and unsold product

<sup>5</sup> Lawrence A. Duewer, Kenneth R. Krause and Kenneth E. Nelson. October 1993. U.S. Poultry and Red Meat Consumption, Prices, Spread and Margins. USDA, ERS Agriculture Information Bulletin Number 684. Adjusted by Canfax Research Services (March 2010) for exchange rate and updated for inflation using Statistics Canada, Consumer Price Index.

Given those assumptions and industry practices, using the Nielsen data and multiplying \$4.19/lb by the 448 lbs provides a gross revenue value of \$1,877. Subtracting the procurement cost of \$706 (448 lbs \* \$1.50/lb<sup>6</sup> + \$0.10/lb transport to a distribution centre) gives a gross margin of \$1,160. Recall that the gross margin is defined as the total revenue less that procurement costs. From the gross margin the average cost of \$1.77/lb<sup>7</sup> over 448 lbs (\$793) to get the product from the distribution centre to the consumer, leaving a contribution margin of \$367 at the retail level.

Margins vary widely at retail depending on the cut and time of year. When broken down by the sub-primals sold at retail we can see that larger margins are made on Ribeyes and Chuck Tender (Eye of Chuck) while margins are extremely small to negative on the Top Butts, Outside Eyes, and Top Blades.<sup>8</sup> The latter items are frequently used in features with the purpose of increasing foot traffic and overall sales at the meat counter. A contribution margin of 20% before taxes, interest and overhead (i.e. advertising, refrigeration or any other management and building costs) is estimated using these assumptions. Industry sources indicate net retail margins of 5-6%.

A retailer's willingness to pay for each cut depends on their mix of cuts they sell knowing that a loss will be made on some items which will be made up by profits on other items. However this mix is very different from what comes from a single carcass. If one was to look at the sub-primals sold from a single carcass at retail we see that the average retail price is higher at \$4.60/lb (\$10.14/kg) due to a larger proportion of high valued middle cuts. Ground beef coming from a fed animal only represents 21% of the total volume as compared to retailer who sells 46% of its volume as ground beef. Despite this higher average retail price higher costs accrued by the retailer on these items and a heavier weighting on items that have very small volumes sold at retail (due to sub-primals that are sold into retail, foodservice and export markets) result in the contribution margin on items from the fed carcass being lower at around 8%.

### **Competition in the Retail Sector**

The Canadian retail landscape has seen significant change recent years with the emergence of Wal-Mart Supercentres. Sobeys, Loblaw's, and Metro have been working on re-positioning their different retail formats to meet the changes that are occurring on both changing Canadian demographics as well as strong competition. Over the past 15 years; growth in Wal-Mart and Club format stores has increased competition in centre store categories such as dry goods and non-foods. There are also non-traditional retailers such as Costco and Shoppers Drug Mart that are eroding centre store (non-perishable items) market share.

With this changing competitive retail landscape it has forced traditional retailers such as Sobeys, Loblaw's, and Metro to refine their points of competitive differentiation with focus on fresh foods. Considering this they place a great deal of focus on their perishable departments that include meats. It is all about delivering a value proposition that goes far beyond simple marketing of price points. While they use their centre store to drive traffic, they use their perishable departments to drive customer loyalty through value added branded programs, variety, freshness, and in-house butchery.

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<sup>6</sup> A weighted average boxed beef price of the items retailers do buy since retailers do not buy the entire carcass.

<sup>7</sup> Costs are based on a percentage of gross sales and weighted to the retail mix of cuts – 10% labor, 3% wrap, 6% not sold, 3% shrink, 12% yield loss, and 34.3 cents/lb transportation and storage.

<sup>8</sup> A detailed appendix is available upon request

## **Conclusions**

So is one sector getting an excessive proportion of the retail dollar? We can see that the packer operates on a small margin with profits highly dependent upon utilization levels and managing costs. At the retail side of things it becomes very obvious that retailers make a larger margin on some cuts and sacrificing margins other cuts to increase foot traffic resulting in an overall tight margin at the meat counter. Some retail chains are focusing more on the volume rather than price to get more sales dollars.

Comparing gross revenues or price spreads does not represent fairness/unfairness throughout the supply chain, as it does not account for costs and profitability. It is beneficial for everyone that all partners throughout the supply chain be profitable. When retailers are profitable with their beef section of the meat case this provides incentive for them to expand the beef section over pork and poultry increasing demand and cutout values. While a slow moving beef section or small margins encourages them to increase the size of whatever protein is the most profitable at the time and potentially adjust shelf space. It is this dynamic of competition at the meat counter in addition to the competition between retailers within Canada fueled by consumer demand for each item that determines prices.