Costs and Returns in BC Chicken Marketing

Al Mussell, Darryl Robinson, and Kevin Grier

October, 2020

Executive Summary

The purpose of this study was to provide information and analysis that could inform the situation of BC live chicken pricing and the feasibility of prospective changes in pricing. The objectives were:

- To review and update existing hatchery and processing models.
- To assess the alternatives for live chicken pricing.
- To assess the competitive conditions and market facing BC chicken processors.
- To interpret the results in a basic economic supply chain model that connects chain segments.

Consistent with this, existing hatchery and processing plant models were updated, and a processor market/competitive analysis was undertaken.

The updated data feeding into chicken processing and hatchery show that for 2020, on a representative basis, costs are up. Compared with a 2019 reference, hatchery costs in 2020 for BC are up approximately 3¢/chick. This increase in prices was fairly constant across BC, Manitoba, and Ontario, and driven by increases in hatching egg prices. The exception was Alberta, where hatching egg prices hardly changed 2019-2020. These changes were sufficient to make Manitoba and BC the highest-priced hatching eggs among provinces compared, followed by Alberta and then Ontario.

For chicken processing, compared with a 2015-18 baseline and adjusting for market disruptions due to Covid-19, total processing costs for BC are up about 12¢/kg. This is consistent with increased costs for Manitoba. Ontario costs were up about 10¢/kg and Alberta costs increased by 6¢/kg. These changes were sufficient to make Ontario the low processing cost jurisdiction tightly followed by Manitoba, then Alberta, and with BC the high processing cost region. The model allows for regional variation in input pricing on live birds and labour, and of these variation across provinces was the largest in live birds. Increases in live bird prices were the largest in BC and Manitoba.

The supply chain cost-based estimates interface with major market trends and information.

- While there is a two-way flow of chicken exiting and entering the BC market, the net flow is about 9000 tonnes out of BC, in all likelihood to Alberta which is chicken deficit, and Alberta probably also pulls in chicken from Saskatchewan and Manitoba.

- The major processors headquartered or otherwise operating in BC (Hallmark, Sunrise, Sofina/Lilydale) also have operations in the Prairie provinces. They lack the incentive to transfer product into the BC market from the prairies as, from a competitive position, they would be competing with themselves. By itself this means that, on fresh chicken, pressure from out of province competition in BC should be limited.

- "Local" has been promoted extensively in BC as a marketing proposition. This logically strengthens the marketing position of BC processors in that segment of the market, as well as more generally.

- The majority of chicken product sold by processors is on a formula contract, rather than a negotiated spot basis. The CFC carcass composite data used here, based on the spot market, is thus drawn from a minority of sales. However, data on the retail pricing of chicken (whole birds and breasts) shows that BC have been well above Ontario and most of the prairies, and just under Alberta. Anecdotal industry sources suggest BC wholesale chicken prices (accounting for formula process and spot market prices) are 7-8% higher than Ontario, consistent with relative grocery store price differentials.

The purpose of this study was to provide information and analysis that could inform the situation of BC live chicken pricing and the feasibility of prospective changes in pricing. The objectives were the following:

- To review and update existing hatchery and processing models.
- To assess the alternatives for live chicken pricing.
- To assess the competitive conditions and market facing BC chicken processors.
- To interpret the results in a basic economic supply chain model that connects chain segments.

Consistent with this, previously developed chicken processing plant and hatchery economic models were updated, and a marketing/competitive analysis of BC chicken processors was conducted. The results showed the following:

- The updates to data on hatchery and processing plant costs suggest marginal increases in cost and decreases in processor margin, especially when compared with 2017-18 for the processing plant.
- While there is a two-way flow of chicken exiting and entering the BC market, the net flow is about 9000 tonnes out of BC, in all likelihood to Alberta which is chicken deficit.
- The major processors headquartered or otherwise operating in BC (Hallmark, Sunrise, Sofina/Lilydale) also have operations in the Prairie provinces. They lack the incentive to transfer product into the BC market from the prairies as, from a competitive position, they would be competing with themselves. By itself this means that, on fresh chicken, pressure from out of province competition in BC should be limited.
- "Local" has been promoted extensively in BC as a marketing proposition. This logically strengthens the marketing position of BC processors in that segment of the market, as well as more generally.
- The majority of chicken product sold by processors is on a formula contract, rather than a negotiated spot basis. The CFC carcass composite data used here, based on the spot market, is thus drawn from a minority of sales.

- Most of the product sold by processors is priced in a price formula contract, rather than in an open market. This means that it is unlikely that BC processors face pricing pressure associated with being a surplus supplier
- Data on the retail pricing of chicken (whole birds and breasts) shows that BC have been well above Ontario and most of the prairies, and just under Alberta. Anecdotal industry sources suggest BC wholesale chicken prices (accounting for formula process and spot market prices) are 7-8% higher than Ontario, consistent with relative grocery store price differentials.
- The processing plant model operates under the assumption that, compared with the CFC carcass composite data, wholesale prices in Western Canada are $.10/kg higher. However, this price spread is probably conservative, perhaps up to $.27/kg higher. With updated data, (adjusted for Covid-19) the wider price spread increases the BC processor margin from $.25/kg to $.37/kg
- The situation is somewhat different for frozen and further processed products. In this case, it is much more likely, or even prevalent, that product enters into the BC market from other provinces. Further processed and frozen product may account for about 30% of the market, and it is not a big growth area.

Overall, a disadvantage in feed costs relative to Ontario and the Prairies characterizes the farm segments of the BC supply chain. There are no feasible alternatives to this. By itself this creates pressure and some urgency for the live price to effectively capture this dynamic. However, a broadly favorable marketing environment exists for BC chicken processors, which perhaps could be parlayed into a more favorable environment for producers. It also presents a market environment in which producers and processors could work together to build market value.

1.0 Introduction

Chicken marketing in BC and associated difficulties with pricing among segments is an ongoing issue. It is the long-standing subject of debate among broiler breeders, broiler growers, and processors.

The BC Chicken Growers Association represents broiler producer and advocates for their interests. The Association has undertaken several past studies to understand the situation versus other provinces and to evaluate some of its options. The regulatory aspects of supply management allow for a range of options in pricing for hatching eggs and live chicken, but these are bracketed by the effects on downstream segments, feed pricing, issues of allocation within supply management, and pressure from interprovincial movement and international imports. Past work has suggested a range of margin levels in the hatchery and primary processing segments with variation across provinces. The pricing of chicken products between processors and retail and food service segments, and broader issues of market access and terms of trade are issues that impact the BC supply chain.

In its regulatory review, FIRB will be tasked with understanding and evaluating how the transfers between segments are operating, whether particular approaches to pricing and price levels are efficient and appropriate. FIRB will also want to assess how changes in market regulation could improve the situation for the BC chicken producers and the supply chain.

1.1 Purpose and Objectives

The purpose of this study is to provide information and analysis that informs the situation of BC live chicken pricing and the feasibility of prospective changes in pricing.

The objectives are:

- To review and update existing hatchery and processing models.
- To assess the alternatives for live chicken pricing.
- To assess the competitive conditions and market facing BC chicken processors.
- To interpret the results in a basic economic supply chain model that connects chain segments.

1.2 Organization of the Report

Section 2 below provides results from the update to the hatchery cost model. Section 3 presents the updates to chicken processing plant model. Section 4 assesses chicken market conditions and leverage. Section 5 concludes the report.

2.0 Hatchery Model Update

An up to date understanding of chicken situation in BC requires a renewed analysis of how BC hatchery costs have changed, and how this compares with other regions of the country. This section sets out the assumptions and updates made to the hatchery model originally developed in 2019.

2.1 Capital

Changes in capital costs were estimated from discussions with equipment suppliers and contractors, and from recent quotes for analogous projects. Costs have increased in some categories, notably structure and surfaces within the plant that are stainless steel and personnel in construction. In other cases, capital costs have not increased- in hatchery equipment, certain materials costs such as concrete, and rolling stock.

Table 2.1 below provides a summary of estimated changes since last year. These adjustments were applied, as appropriate, on a line by line basis to the items listed in Table 2.1 in the original report. The "square footage" cost changes were updated using a blend of the estimated "steel and metal in structure" and "Building contractors" to obtain an estimated cost increase of 8.8% versus 2019.

Table 2.1 Estimated Changes in Capital Costs versus 2019

Steel and metal in structure	11.5%
Hatchery equipment	0%
Building contractors	6%
Rolling Stock	0%

2.2 Human Resources

Personnel costs were estimated based on representative collective bargaining agreements for hatcheries by region and from Statistics Canada average wage rates for National Occupation Codes (NOCs) employed in the office. In the 2020 update, among the collective bargaining agreements publicly available that extend to 2020, only the Exceldor (Granny's) hatchery agreement for the Blumenort facility was in place into 2020. In comparing the rates across classes of employees for 2019 versus 2020, the collective bargaining agreement calls for a 2.5% increase. This increase was attributed to hatchery employees in each of the provinces.

With regard to office staff, Statistics Canada no longer published wage rates by NOC on an annual basis (since 2018). As a proxy, the 2.5% increase in wage costs cited above was also applied to office staff.

2.3 Energy Costs

Costs of electricity and motor fuel were retained unchanged from 2019 levels.

2.4 Hatching Egg Pricing

Hatching egg prices by province were obtained for 2019 from the Canadian Hatching Egg Producers annual report. These were used to represent 2020 conditions, as shown in Table 2.2.

Table 2.2 Hatching Egg Price, $/saleable chick

	2018	2019
BC	0.5539	0.5808
Alberta	0.5776	0.5781
Manitoba	0.5674	0.5965
Ontario	0.5191	0.548

Source: CHEP

2.5 Hatchery Economic Costs and Returns

Table 2.3 below presents the results of estimated hatchery costs in BC for 2020 versus 2019 based on the above changes in data. The results in the table suggest that hatchery costs increased in 2020 compared with 2019. The principal source of increased cost was the price paid for hatching eggs, with small increases in human resources and capital costs.

Table 2.4 presents the comparative hatchery costs across provinces in 2020 versus 2019. In all provinces, hatchery costs increased. The changes in 2020 effectively drew together the costs of BC, Alberta, and Manitoba to each be about 80¢/chick. Ontario costs also increased and settled at about 76¢/chick. Thus, the effective cost spread between BC/western provinces versus Ontario is about 4¢/chick.

2.6 Hatching Egg Imports

Imports of hatching eggs into BC are significant, and a source of reduced cost for hatcheries with tariff-rate quotas (TRQ). Figure 2.1 below puts this in some context. BC has 7 hatcheries with Global TRQ for hatching eggs and chicks, and 2 with CPTPP TRQ. Figure 2.2 plots Canadian imports of hatching eggs, and hatching eggs into BC, since August of 2019. The figure shows that imports of hatching eggs entering into BC have typically been around 200,000 dozen/month, and commonly 25% of total Canadian imports. Hatching egg imports by BC hatcheries are thus material and significant.[1]

[1] Import of broiler chicks occur in addition to hatching eggs. However, they are understood to be much smaller in magnitude than hatching eggs, and the trade data at the six-digit level (HS 10511 Fowls of the species Gallus domesticus, live, weighing not more than 185 g) appears to contain both broiler chicks and layer pullets. Thus, the imports of broiler chicks by hatcheries are ignored here.

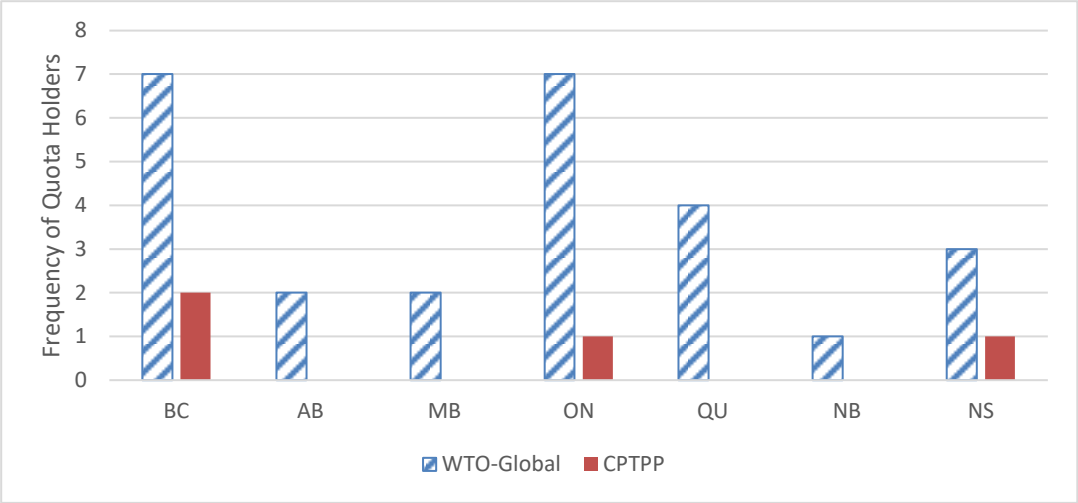
Table 2.3 Hatchery Costs 2020 versus 2019, $

British Columbia	2020			2019		
	Base Level	Mid Level	High End	Base Level	Mid Level	High End
Hatching Eggs	13,590,720	13,590,720	13,590,720	12,961,260	12,961,260	12,961,260
Labour/HR	2,122,436	2,122,436	2,122,436	2,070,669	2,070,669	2,070,669
Electricity	175,500	175,500	175,500	175,500	175,500	175,500
Diesel Fuel	117,000	117,000	117,000	117,000	117,000	117,000
Depreciation and Interest-Hatchery and Equipment	2,560,258	2,914,686	3,387,256	2,511,180	2,865,608	3,338,178
Depreciation and Interest-Rolling Stock	140,891	140,891	140,891	140,891	140,891	140,891
Total	18,706,806	19,061,233	19,533,804	17,976,501	18,330,929	18,803,499
Total $/chick	0.799	0.815	0.835	0.768	0.783	0.804

Table 2.4 Comparative Hatchery Costs, Base Level Technology

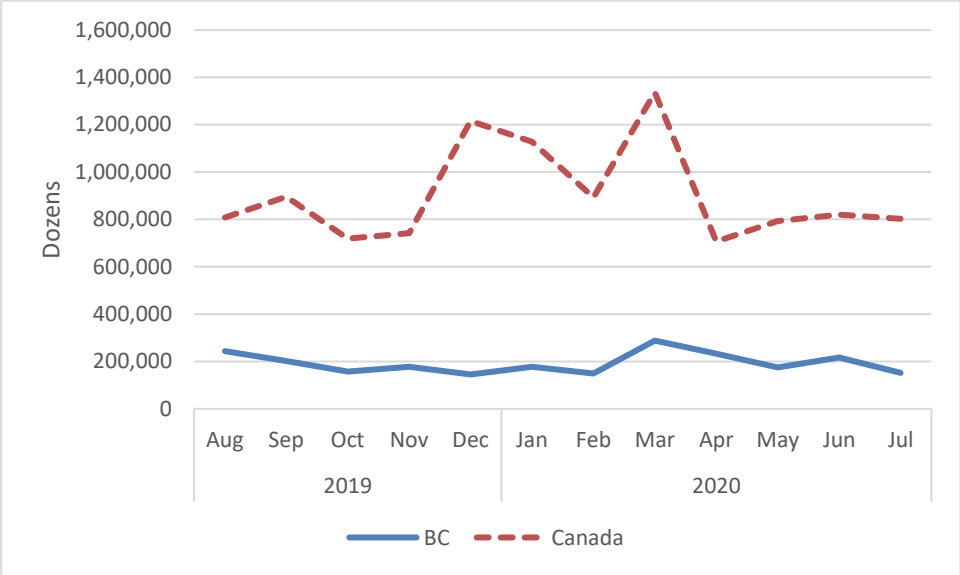
	2020				2019			
	BC	AB	MB	ON	BC	AB	MB	ON
Hatching Eggs	13,590,720	13,527,540	13,958,100	12,823,200	12,961,260	13,515,840	13,277,160	12,146,940
Labour/HR	2,122,436	2,123,297	1,891,757	1,953,725	2,070,669	2,071,510	1,845,616	1,906,073
Electricity	175,500	175,500	175,500	175,500	175,500	175,500	175,500	175,500
Diesel Fuel	117,000	117,000	117,000	117,000	117,000	117,000	117,000	117,000
Depreciation and Interest-Hatchery and Equipment	2,560,258	2,560,258	2,560,258	2,560,258	2,511,180	2,511,180	2,511,180	2,511,180
Depreciation and Interest-Rolling Stock	140,891	140,891	140,891	140,891	140,891	140,891	140,891	140,891
Total	18,706,806	18,644,487	18,843,506	17,770,575	17,976,501	18,531,921	18,067,348	16,997,585
Total $/chick	0.799	0.797	0.805	0.759	0.768	0.792	0.772	0.726

Figure 2.1 Hatching Egg and Chick TRQ holders, 2020



Source: GAC

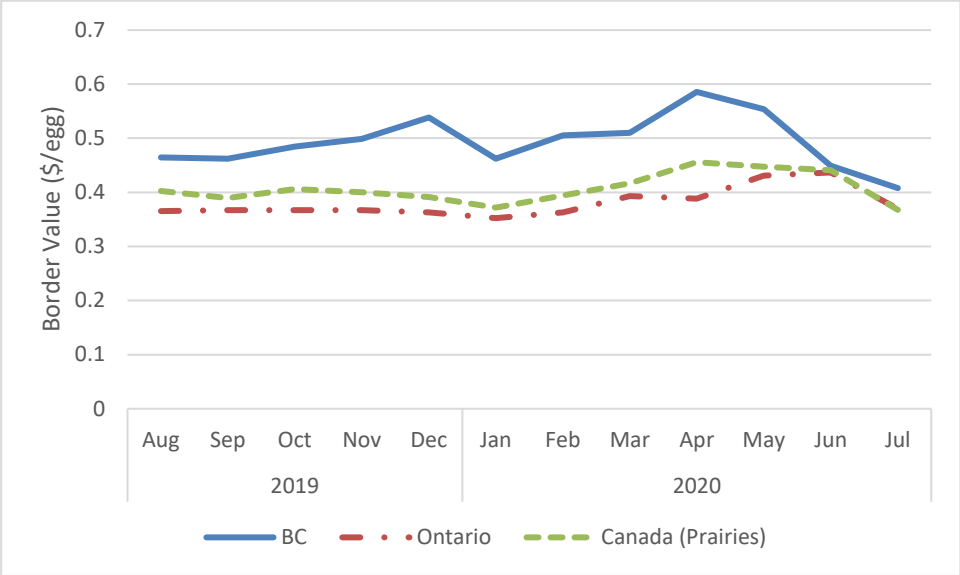
Figure 2.2 Imports of Hatching Eggs, HS 040711



Source: Statistics Canada- Canadian International Merchandise Trade database

To reflect the impact of hatching egg imports on the operations of hatcheries, the following was undertaken. First, the data on volume and value of imports was obtained for BC, Ontario, and Canada for August 2019-July 2020, with the unit value obtained by dividing the volume by value. It was assumed that hatching eggs imported into BC remained in BC, and similarly that Ontario imports remained in Ontario. The Canadian average import value was used to assess the value of hatching eggs imported into Alberta and Manitoba.[2] These are summarized in Figure 2.3 below. The values of hatching eggs imported into BC have ranged around 50¢/egg in the last year, somewhat higher than the value of eggs imported into Ontario, and the Canadian average which has been in the range of 40¢/egg.

Figure 2.3 Imported Hatching Egg Values



Source: Statistics Canada

It was assumed that a representative hatchery could commonly import up to 20 percent of its volume at the lower import price. In effect, this substitution allows for reduced egg procurement costs and overall operating costs. The implications are presented in Table 2.5 below. Including imports at 20 percent of a hatchery's volume decreases overall costs by just over 3¢/egg in Alberta, Manitoba, and Ontario, and by almost 2¢/egg in BC.

[2] The monthly import data for Alberta and Manitoba are relatively thin, thus national averages were used

Table 2.5 Hatchery Costs with and Without Imports Reflected

	2020 Including Hatching Egg Imports				2020 Excluding Hatching Egg Imports			
	BC	AB	MB	ON	BC	AB	MB	ON
Hatching Eggs	13,386,213	13,126,916	13,514,420	12,430,420	13,590,720	13,527,540	13,958,100	12,823,200
Labour/HR	2,122,436	2,123,297	1,891,757	1,953,725	2,122,436	2,123,297	1,891,757	1,953,725
Electricity	175,500	175,500	175,500	175,500	175,500	175,500	175,500	175,500
Diesel Fuel	117,000	117,000	117,000	117,000	117,000	117,000	117,000	117,000
Depreciation and Interest- Hatchery and Equipment	2,560,258	2,560,258	2,560,258	2,560,258	2,560,258	2,560,258	2,560,258	2,560,258
Depreciation and Interest- Rolling Stock	140,891	140,891	140,891	140,891	140,891	140,891	140,891	140,891
Total	18,502,299	18,243,863	18,399,827	17,377,795	18,706,806	18,644,487	18,843,506	17,770,575
Total $/chick	0.791	0.780	0.786	0.743	0.799	0.797	0.805	0.759

3.0 Chicken Processing Plant Model Update

This section of the report lays out the updates made to the model to reflect estimated 2020 conditions from the most recent update in 2018.

3.1 Capital

Changes in capital costs were estimated from discussions with equipment suppliers and contractors, and from recent quotes for analogous projects. Since 2017/18, some aspects of processing plant capital have increased significantly in cost, especially plant processing equipment and structure and surfaces within the plant that are stainless steel. Costs of personnel in construction have also increased. In other cases, costs have not increased- for example, estimated concrete costs remain similar to or at 2017/18 levels, and bulk storage not requiring stainless surfaces such as in waste storage bins.

Table 2.1 below provides a summary of estimated changes since 2017/18. These adjustments were applied, as appropriate, on a line by line basis to the items listed in Table 2.1 in the 2018 report. The "square footage" cost changes were updated using a blend of the estimated "steel and metal in structure" and "Building contractors" to obtain an estimated cost increase of 18% versus 2017/18.

Table 2.1 Estimated Changes in Capital Costs versus 2017/18

Steel and metal in structure	23%
Processing equipment	30%
Waste disposal facilities	0%
Building contractors	12%

When these adjustments are applied, the estimated new build capital cost of the plant increases to $27.6 million in 2020 versus $23.5 in 2017/18. On an annualized basis, this amounts to $3.38 million in 2020 versus $2.81 million in 2017/18, or $.098/kg (live basis) versus $.082/kg in 2017/18.

3.2 Human Resource Costs

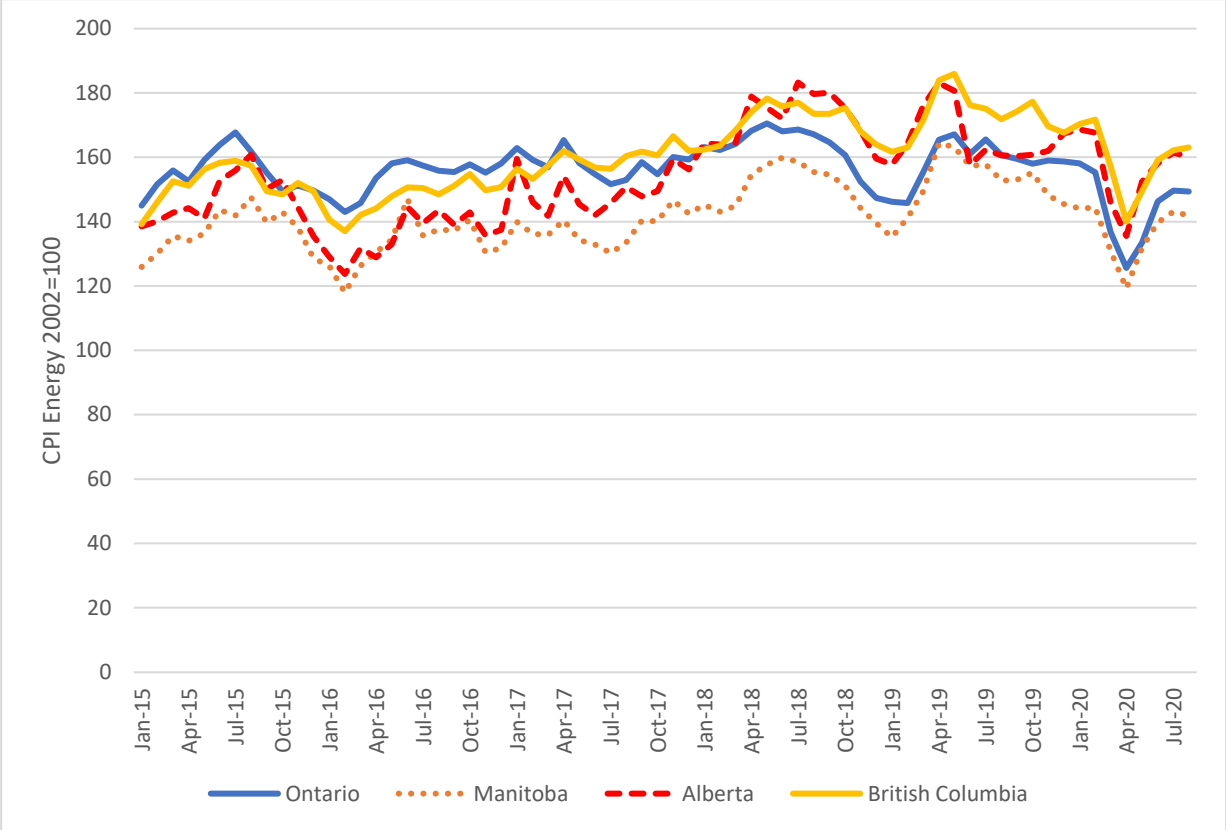
Plant personnel costs were estimated based on representative collective bargaining agreements for poultry plants by region and from Statistics Canada average wage rates for National Occupation Codes (NOCs) employed in the processing plant office. In the 2020 update, among the collective bargaining agreements publicly available that extend to 2020, only the Granny's agreement was in place into 2020. In comparing the rates across 5 classes of employees for 2017/18 versus 2020, the increase was consistently 7%. This increase was attributed to plant employees in Manitoba, and also to the other provinces.

With regard to office staff, Statistics Canada no longer published wage rates by NOC on an annual basis (since 2018). As a proxy, the 7% increase in wage costs cited above was also applied to office staff.

3.3 Energy Costs

Energy costs were retained at 2017/18 levels. The rationale for this was that energy prices are not the key cost item influencing cost competitiveness, and that 2020 values are similar to 2017. This is illustrated in Figure 3.1 below. While there was energy price fluctuation between 2017 and 2020, in 2020 provinces are essentially in a band between index 140 and 160, as they were in 2017. In particular, further analysis confirmed that electricity prices were essentially unchanged 2017 vs. 2020 across the four provinces. Thus, energy costs were retained unchanged for 2020.

Figure 3.1 Energy Price Index BC, Alberta, Manitoba, Ontario



Source: Statistics Canada. Table 18-10-0004-01 Consumer Price Index-Energy, monthly, not seasonally adjusted

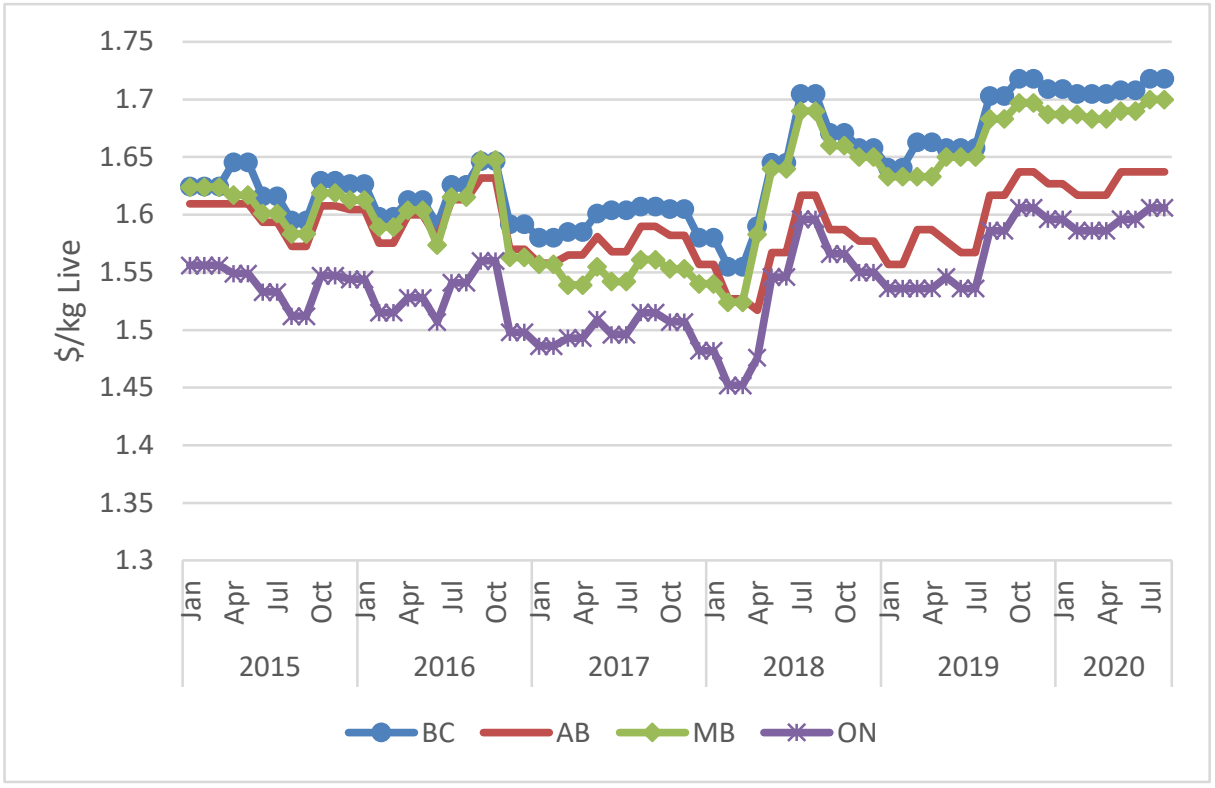
3.4 Water and Waste Costs

Water and waste water costs were retained unchanged from the base model.

3.5 Live Chicken Costs

Live chicken minimum prices were updated to A-165 for each province, for the 1.4 kg to 2.7 kg weight class. These are illustrated in Figure 2.2 below. Across provinces, chicken prices are up from 2017 and were steady thus far through 2020.

Figure 2 Live Chicken Prices

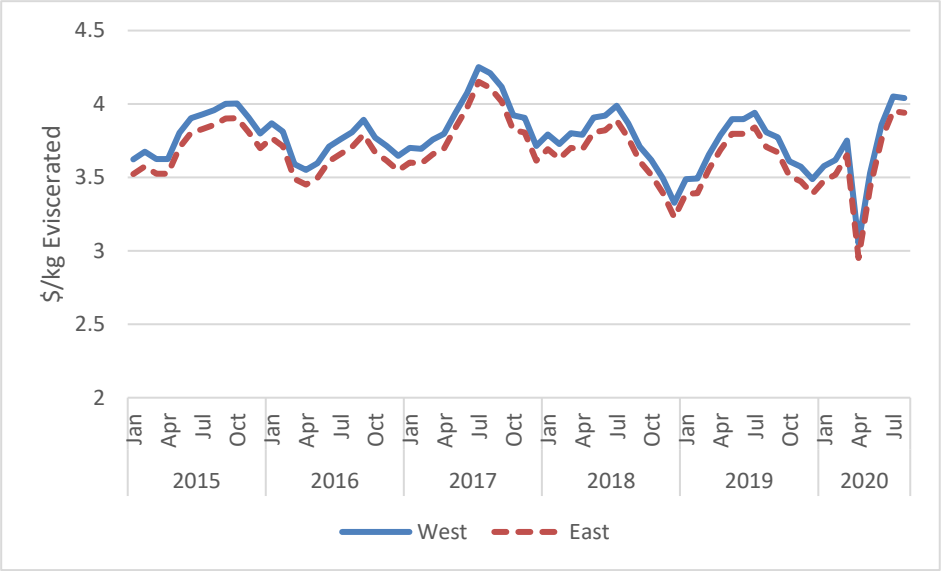


Source: AAFC

3.6 Eviscerated Carcass Value

Eviscerated carcass values were updated from the Chicken Farmers of Canada Chicken Market Composite survey. The trends are illustrated in Figure 3.3 below. Chicken carcass values have generally fluctuated between $3.5/kg and $4/kg, with extreme lows put in in spring 2020 associated with the Covid-19 situation.

Figure 3.3 Chicken Market Composite, with Adjustment for West



Source: CFC

3.7 Covid-19 and Reference Period

The Covid-19 pandemic impacted poultry markets in 2020. First, the sudden collapse of food service demand significantly decreased chicken cutout values. Secondly, major quota decreases in spring and summer 2020 have had the effect of supporting processor margins in the summer of 2020. This is illustrated in Figure 3.4 below; estimated processor margins were exceptionally low in early spring 2020, and much stronger since then. There is good reason to think that these effects are exceptional and related to the pandemic, and not variation in response to essential market factors. Thus, an appropriate measure of the current situation is biased by these factors and would be better characterized by the period prior to the pandemic reaching Canada.

With this in mind, the results below compare past periods versus the current period using the average of April 2019 to March 2020 as an indicator of current, with the period since April 2020 dropped out.

3.8 Results

The results or the data updates above, focusing on 2019/20 versus historical updated to 2017/18, are summarized in Table 3.2 below. It shows the following:

- For BC processors, relative to the base period, costs have increased. In order of magnitude these are live birds (8.5¢/kg live), labour (approximately 2¢/kg live), and capital (just under 2¢/kg live)

- In turn, this has pressured down margins in 2020 year to date versus the base 2015-18 base. The combination of higher costs and weaker carcass value in 2020 have reduced margins to an estimated .25¢/kg live.
- Increasing costs and reduced margins for processors were experienced in the other provinces. However, BC experienced increased cost and reduced margins to a greater extent than either Alberta or Ontario, and similar to Manitoba.

Figure 3.4 Processor Margins and Covid-19

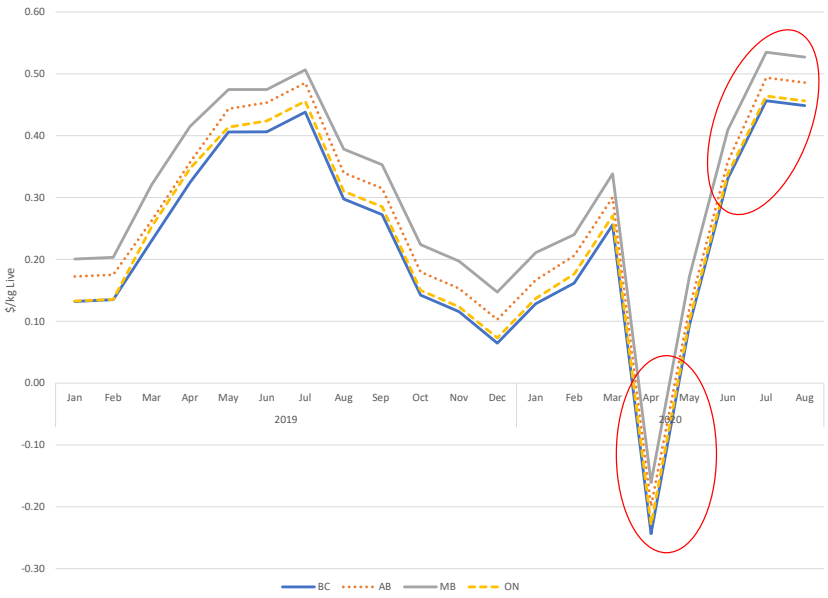


Table 3.3 Processing Cost and Returns Summary and Comparison

	2020				2015-2018			
	BC	AB	MB	ON	BC	AB	MB	ON
Capital	0.098	0.098	0.098	0.098	0.082	0.082	0.082	0.082
Energy	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
Labour	0.440	0.447	0.380	0.412	0.417	0.424	0.362	0.390
Water	0.008	0.008	0.008	0.008	0.008	0.008	0.008	0.008
Processing Cost	0.673	0.679	0.612	0.644	0.633	0.640	0.578	0.606
Live Chicken	1.732	1.685	1.714	1.666	1.647	1.663	1.624	1.619
Total Cost	2.405	2.364	2.326	2.310	2.280	2.303	2.202	2.226
Processor Margin	0.25	0.29	0.33	0.27	0.443	0.420	0.520	0.426

4.0 Pricing with Retailers and Food Service, Market Access, and Leverage

This section of the report discusses the market mechanisms between the B.C. processors and retailers and foodservice sectors. In other words, it assesses the terms of trade and market access between the processors and their domestic customers. Its purpose is to explore the market leverage of processors and their ability to pass along cost increases.

4.1 Processors in Supply Management

As a starting point it needs to be noted that processors operate within the Canadian chicken supply management system. This point is critical to the market access and market leverage held by processors. There are three widely noted pillars of supply management: import controls, production discipline and pricing based on costs. Of the three, the most important is import controls, without which the other two would not be possible.

With reference to the pillars of the chicken supply management system, import controls take the form of very high tariffs of over 200%. Non-tariff access to the Canadian chicken market has typically been restricted to about 7.5% of the previous year's production. Under new trade agreements that have come to fruition in 2019 and 2020, that percentage will change, but it is still a good guide. Within that non-tariff access there is a very sophisticated and restrictive system of import quota and allocation.

The pillar of production discipline in the chicken industry is the allocation of production quota nationally, provincially and then to individual chicken farmers. Production volumes are regulated to ensure that supplies are matched to demand at prices that can generate reasonable margins through the supply chain. In some provinces, notably Ontario and Quebec, chicken is also allocated to individual plants.

Finally, the third pillar is cost of production pricing (COP). In the chicken industry much of the producer sector across the country prices live birds off the Ontario price. That Ontario price is based on the provincial cost of production estimate.

The following points describe the chicken processor market positions and activities within supply management.

1. Processors are protected from U.S. and other global chicken competitors by very high tariff barriers. The very high tariffs keep large volumes of U.S. product out of Canada. The tariffs result in high domestic chicken prices at the processor level and, are therefore, a regulatory barrier to entry of foreign product.
2. The share that can enter tariff free is subject to quota allocation and is in the hands of designated quota holders. The cost of the quota essentially serves as a non-tariff price protection to processors even on the limited foreign product that is allowed under the system. As a result, even this chicken would not be characteristic of open market competition.

3. The domestic production quota and the allocation system across the country serves as a barrier to entry to new competitors. In Ontario and Quebec, processors must have a plant quota to process chicken. Without this quota new competitors cannot participate in the processing sector. Even in regions where designated plant allocations do not exist, the regulated production effectively restricts new participants. It also limits competition for live chicken supplies. Further to this, in regions without plant quota, the restricted production is often essentially and informally allocated based on processor shares.
4. Production discipline in practice involves industry participants, most notably and most prominently, including primary processors determining total industry production through industry participant agreement.
5. Production discipline in chicken is practiced most vigorously by the processor participants in the allocation system. Chicken Farmers of Canada data shows that the processors usually argue for the lowest allocation each quota period. The rationale is that restricted production helps protect prices, reduces competition and enhances margins.
6. Production discipline and the resulting production limitations means that large retail/foodservice buyers seek to have supply linkages with primary processors. Supply discipline encourages these linkages and restricts the ability for other processors, particularly further processors, to compete. In open markets there would be the ability for processors to compete for customers. The supply managed system limits that competition. Production discipline and the resulting production limitations also increases the market power of processors, as they control supply. This restricts product access for further processors and limits their ability to compete with primary processors.
7. Production discipline and the allocation of the product fragmented at the provincial level means that inter-regional competition in Canada is restricted on fresh chicken. Provincial allocation means that processor ability to move into other regions with fresh product is limited. Processors compete within their supply mostly in the allocated region. Provincial allocation logically reduces the ability for processors to compete in other regions with fresh product.

4.2 Retail and Foodservice Distribution Overview

The retail grocery market in B.C. is comprised of the Overwaitea Food Group, Loblaws and Sobeys as well as Walmart and Costco. In addition, there is a secondary tier of mid-sized grocers that is a big part of the market. That is represented by the Georgia Main Food Group with its IGA banner and First Street Market, Co-op West, and ethnic grocers. There is also a Pattison Group presence in this tier with stores such as Buy-Low Foods. This Pattison entity is in addition to the Overwaitea entity. Loblaws, Sobeys as well as Walmart and Costco are national entities while Overwaitea is western Canadian.

Regarding foodservice, in B.C. as elsewhere in Canada, there are two main broadline distributors, Sysco and Gordon Foodservice (GFS). These two firms supply a cross section of products to chain and independent restaurants or smaller foodservice distributors. These two are national entities and have a very large share of the B.C. foodservice market. In addition to these main foodservice participants there are several distributors that focus on foodservice while others serve foodservice as part of their customer based. After Sysco and GFS the foodservice suppliers breakdown into much smaller firms.

4.3 Trading Pattern

There is a general pattern of sales and procurement practices between chicken processors and grocers in Canada, including British Columbia. Chicken will be sold, procured, and priced between processors and grocers in three ways:

1. Formula volumes with pricing usually based on live bird prices.
2. Spot market one to three weeks volume and pricing based on supply and demand.
3. Forward purchase volumes three or more weeks out, at negotiated prices.

The formula purchases would be for a grocer's normal flow business. That is the normal expected weekly volume for regular or base priced product. The spot purchases would be for fill-in business, opportunity buys or purchases that are part of the normal flow, but not formula priced. Forward purchases would typically be negotiated tonnage and pricing for a grocer's planned features.

The volumes or shares of tonnage for each will vary based largely on the grocery buyer's risk management and merchandising programs. For example, a grocer that is risk averse would buy much more on a formula compared to a grocer that is willing to hazard the highs and lows of the spot market. A grocer whose merchandising program is focused on featuring significantly will buy much more forward than a grocer that merchandises as a steady everyday low-price outlet. Costco might be an example of the latter, while Safeway has been known as a big feature retailer. As another point of note, after the industry clamped down on the bogus fowl imports in 2017, all buyers became more interested in formula relationships to secure supply.

In any event, a starting point for discussion would approximate that the grocer-processor relationship might be about 40-50% sold on formula, 20-30% sold on the spot market and 20-40% sold forward. Based on anecdotal information from industry participants in B.C. and across Canada, the general trend is to a lower share of the trade being spot market transactions. This is particularly the case in B.C. As such, for the purposes of discussion B.C. might be less than 20% spot market and about 60% formula.

While it is noted that formula relationships are more common in recent years, BC grocers and processors have been working in close relationships for many years. A relationship may involve

only dealing with one supplier for all purchase needs. Conversely another pattern of relationship may mean partnering on the regular flow business but opening to one or all suppliers for feature business. There are other permutations and combinations of relationships.

One example of an exclusive relationship in B.C. would be the Overwaitea Food Group and its well-known 20-year relationship with Hallmark Farms. It is likely that Hallmark supplies the full array of needs for Overwaitea. Sobeys may be an example of partnering with one on normal flow business, in this case Lilydale, but opening to others for feature needs. Maple Leaf and Walmart work together closely in B.C. Walmart product could come from Ontario unless Maple Leaf Edmonton product is available. Relationships may also mean more than one supplier for the normal flow business. Costco is often cited as an example of a company that has steady relationships with more than one supplier. With that noted, in B.C., Lilydale is likely the lead supplier for Costco. Loblaws/Real Canadian Superstore has worked with both Lilydale and Sunrise, but they will reach out to Hallmark or others for features.

It is also worth noting that grocer supplies can be augmented by importing product from the United States. Grocer or processor tariff rate quota product would be utilized depending on quota holdings or quota value opportunities. This product could be on the spot market or it could be for feature business. This product has traditionally amounted to 7-8% of Canada's previous year's production.

Frozen further processed chicken may represent about a third of Canadian chicken production. Each retailer will have their own further processed line such as President's Choice at Real Canadian Superstore or Western Family at Save On. Private label frozen is an important component for most primary and secondary processors. In addition, there will be local brands from local primary and secondary processors.

Frozen further processed product can be more broadly sourced across provincial lines given the nature of the product. That is because this product is more amenable to being transported over longer distances. It is also likely that grocers will have longer term relationships with one or more suppliers. These supply and price relationships will include promotional support and shelf space agreements. In other words, this type of product is procured and merchandised much differently than fresh. This different type of relationship is again due to the nature of the product. It is less commodity based and less vulnerable to the pressures of the fresh market. While these relationships could be national in scope, it is also expected that B.C. grocers will show a preference for local given their fresh relationships and their ongoing desire to support local product.

Regarding foodservice, there is no "official" estimate of the volume of chicken that is sold through that channel versus retail. Based on Statistics Canada data on consumer expenditures, about 40% of the consumer food dollar is spent on out of home meals. That would be a starting point to say that at least 40% of chicken consumption is at foodservice. Of course, dollars spent

outside the home are less than at home which might mean that tonnage share through foodservice is less than 40%. Based on anecdotal insights, 35-40% foodservice share is likely representative of the Canadian chicken market, at least prior to the onset of the coronavirus in early 2020.

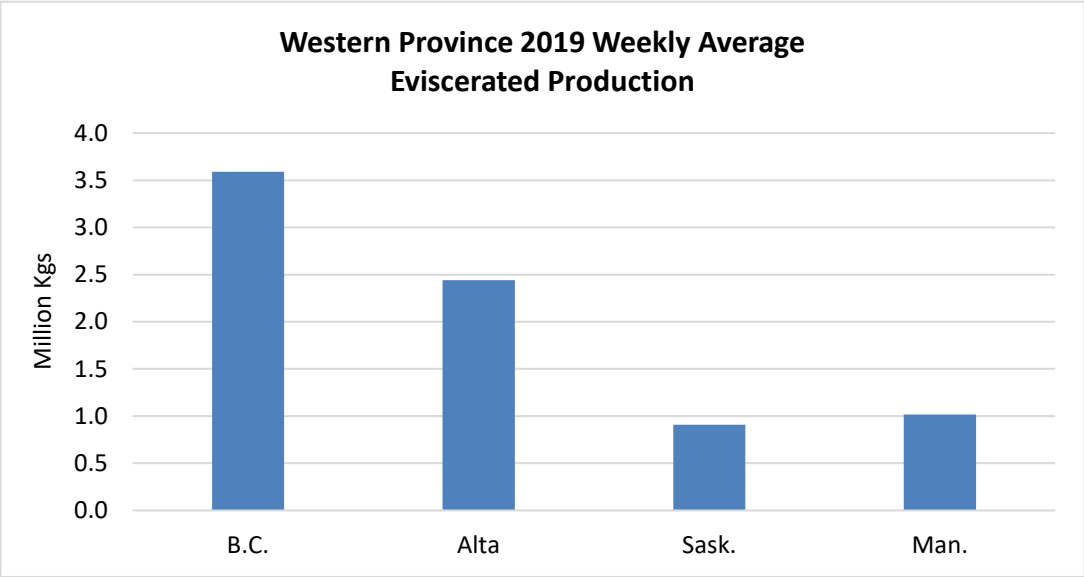
In B.C. foodservice, the big two distributors, Gordons and Sysco have shown a tendency to want to work with the larger processors such as Maple Leaf, Exceldor, Olymel and Maple Lodge on both fresh and frozen. That being said, they also work with local processors, both primary and secondary to supply local restaurants and outlets with their fresh, just in time product needs. The local processors respond to the needs and demands of the local restaurants. The big distributors consider their local relationships to be important and simply look for consistency of supply, pricing and quality. Furthermore, the trend is to source more locally as foodservice outlets demand more variety and niche items such as Halal, antibiotic free and certified animal welfare practices.

Regarding foodservice purchasing patterns, it is like that of grocery. There will be a share that is purchased on a regular formula basis and priced off the live market. There will also be a share that is purchased on the spot market and a certain share purchased further out for features. Special features of chicken could include lower prices on wings or chicken appetizers. The big distributors are more likely to have two or more main suppliers.

4.4 Production and Consumption

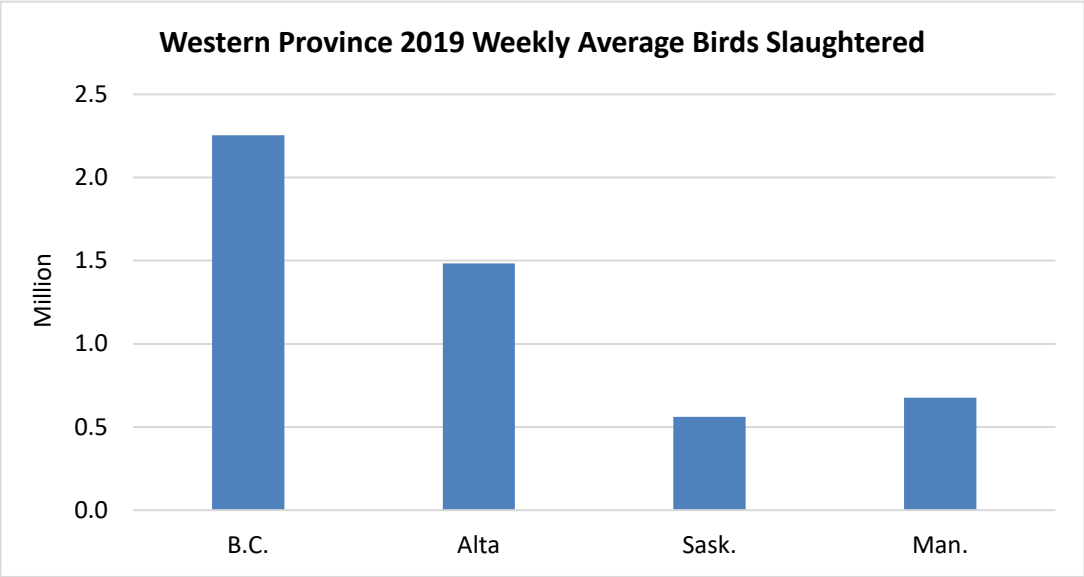
In British Columbia, the main processors are Hallmark with two primary plants, Sunrise and Lilydale with one plant each. The Lilydale plant also processes turkey. In addition, there are four other smaller plants. Sunrise also has one plant each in Alberta and Manitoba. Lilydale, a part of the Sofina Foods group, has plants in Alberta and Saskatchewan. This is summarized in Figure 4.1. Average B.C. production during 2019 was about 3.6 million eviscerated kilograms per week. The reference is made to 2019 as opposed to 2020 due to the unusual virus-related production disruptions in 2020. Figure 4.2 shows that B.C. production at 2.3 million birds is the largest in the west followed by Alberta at 1.5 million birds per week; Manitoba at 700,000 birds and Saskatchewan at less than 600,000. B.C. production is about 47% greater than Alberta on a weekly basis. Total annual production in B.C. amounts to about 187,000 tonnes (Figure 4.3). That compares to 127,000 tonnes in Alberta and 47,000 and 53,000 tonnes in Saskatchewan and Manitoba, respectively.

Figure 4.1



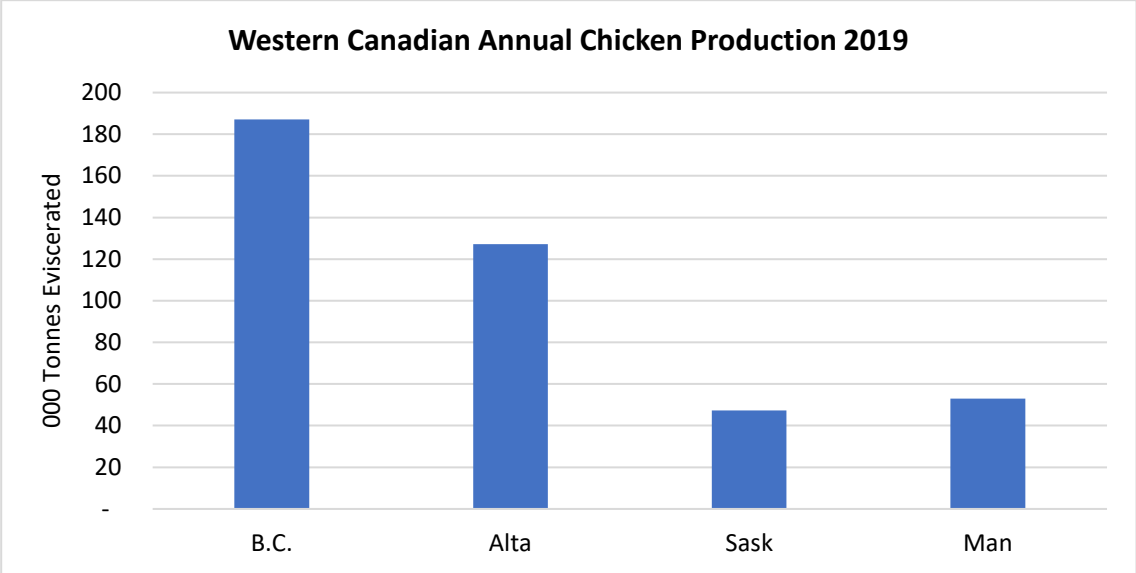
Source: Chicken Farmers of Canada

Figure 4.2



Source: Chicken Farmers of Canada

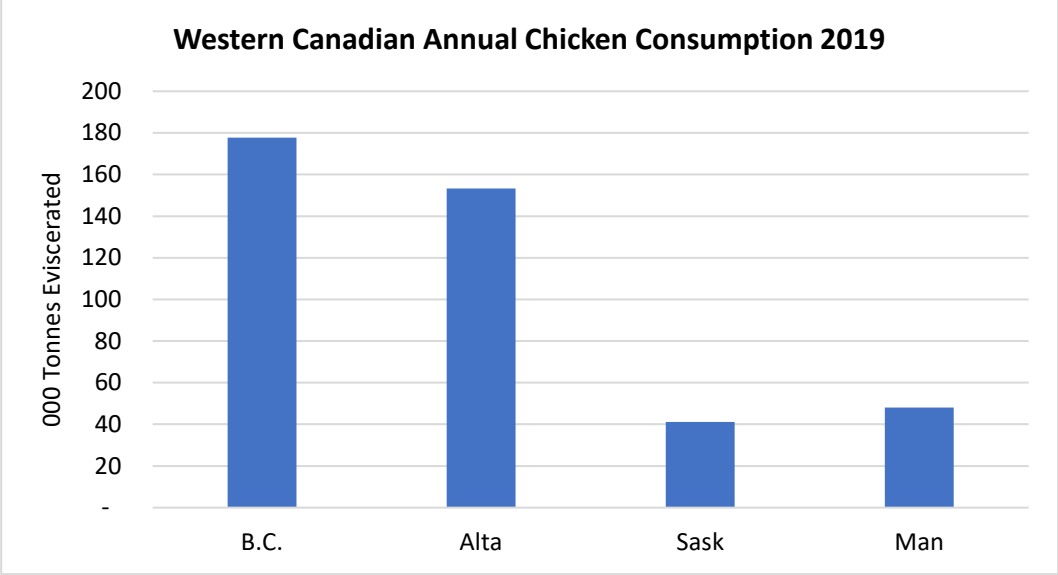
Figure 4.3



Source: Chicken Farmers of Canada

Consumption of chicken per province is not publicly available, but it can be estimated using Statistics Canada national per capita consumption and provincial population. That is national per capita consumption is a good estimate for each province. That is a reasonable claim based on the assumption that one province is not significantly different from another in terms of the amount of chicken each person consumes. Based on that calculation Figure 4.4 plots estimated chicken consumption by province. B.C. consumption amounts to about 180,000 tonnes or about 25,000 tonnes more than Alberta and about 4 times the total consumption in Saskatchewan and Manitoba.

Figure 4.4



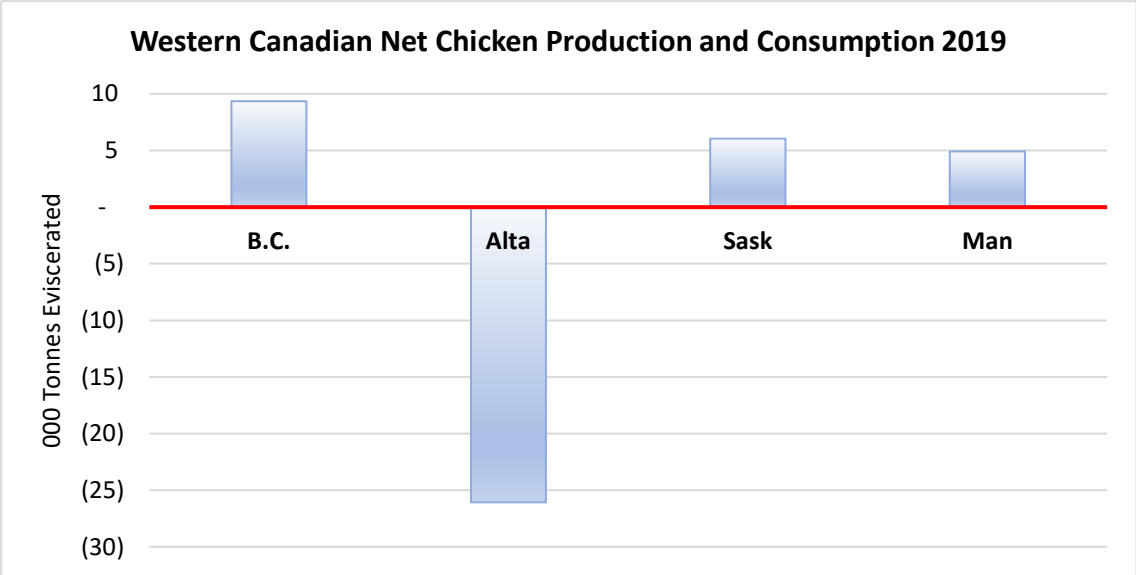
Source: Statistics Canada

The net differential between production and consumption or supply and demand in the west is estimated in Figure 4.5. It shows that during 2019, B.C. produced about 9,000 tonnes more than it consumed. Saskatchewan and Manitoba each produced about 5,000 more than they consumed. Alberta on the other hand consumed about 25,000 more tonnes than they produced. In fact, the B.C. and Alberta patterns of surplus and deficit net consumption have been the case for several years, as shown in Figure 4.6. Further to that point, the prairies have been net deficit producers ranging from about 13,000 tonnes to 21,000 tonnes over the 2014-2019 period.

4.5 Non-B.C. Product In-Flows

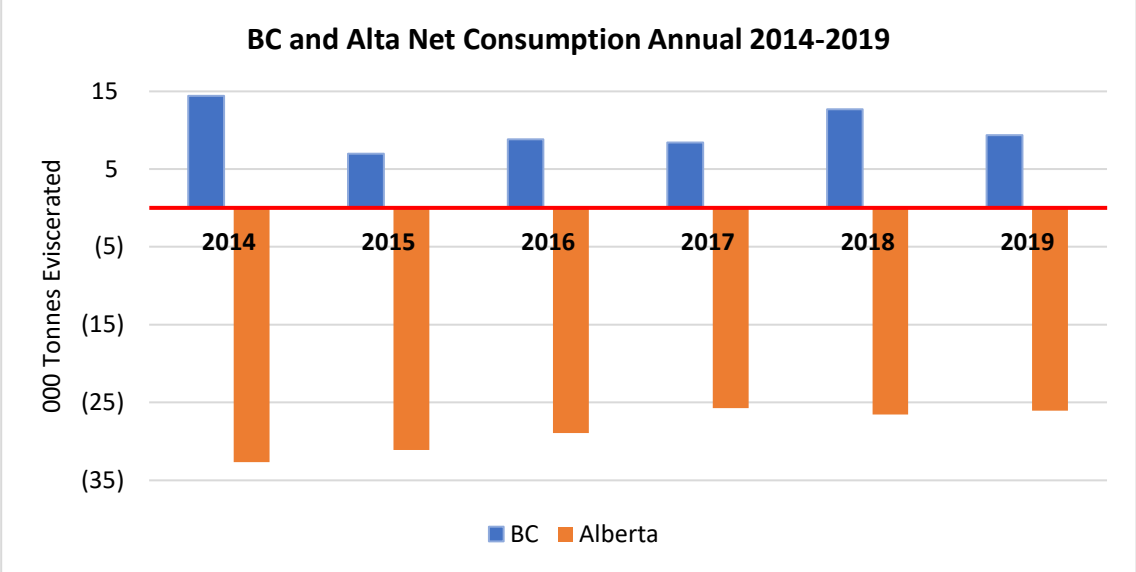
One conclusion that could be reached from the production and consumption assessment is that there is little likelihood of out of province production being a major competitive challenge for B.C. processors. The simple fact is that B.C. produces more than it consumes. In addition, Alberta is net deficit. Those two facts do not point to material inflows into B.C.

Figure 4.5



Source: Chicken Farmers of Canada and Statistics Canada

Figure 4.6



Source: Chicken Farmers of Canada and Statistics Canada

This is not to say that out of province product does not move into B.C. Walmart's close relationship with Maple Leaf indicates that there may be regular Alberta and Ontario production in B.C. Nevertheless, as a generalization, logic suggests that out of province competition is not a large factor in the B.C. market. This also stands to reason given that two of the major players on the prairies are either based in or have operations in B.C. They are not going to be competing internally. This assertion also concurs with anecdotal information from buyers that out of province product is not a material component of the competitive mix in B.C.

Finally, another point that argues against out of province product being a problem for B.C. processors is the demand for and the desire to merchandise "local." B.C. may be one of the regions of Canada that promotes local the most. This provides B.C. processors with trade and competitive leverage versus out of province product.

Alternatively, it could be argued that given that B.C. produces more than it consumes, that provincial pricing could be under pressure. That is, B.C. product must move out of province since local provincial supplies are greater than local demand. While that makes sense, the reality of the trade is that so little is traded openly on the spot market that it is not likely to pressure prices. In addition, Alberta is an accessible deficit market with partner operations Sunrise and Lilydale likely actively marketing B.C. product into Alberta. In other words, if there are large volumes that need to move out of B.C., it is going to be facilitated rather than competitively challenged. This point is enhanced by the fact that there is likely Alberta product from Maple Leaf that leaves that province for Walmart programs in B.C. and elsewhere. In other words, there is likely a strong Alberta pull for B.C. product.

4.6 Processor Pricing

This section describes in greater detail how prices are established at the processor level in B.C. and across Canada. As a starting point, as noted above, chicken in B.C. foodservice and grocery is purchased and priced in three different ways:

1. Formula volumes with pricing usually based on live bird cost plus pricing.
2. Spot market one to three weeks volume and pricing based on supply and demand.
3. Forward purchase volumes three or more weeks out at negotiated prices.

Formula

Given that it is likely that up to 50% of the chicken is traded on formula based on live costs, a logical starting point is to assess that component. Further to that, the formula would vary depending on the customer, and the type of product. Typically, a formula would start with the posted live price/kg for the given period, then add any added costs. That cost would then be divided by an evisceration yield percentage to bring the eviscerated WOG price. WOG means a whole bird without giblets with all parts, including the breast, thighs, drumsticks, wings, back

and abdominal fat. Then, costs need to be added in to include things like freight, processing costs, shipping, packaging & ingredients (with margin built in). These factors will vary from customer to customer. One rule of thumb would be that typically a penny change in live will change the price to a customer by $0.015-0.02/kg. A good starting point for discussion on some of these costs would put yield at 70% plus $1.05/kg to process. Freight is normally $0.10 - $0.25/kg depending on order size and distance. Processors expect $0.25 -$0.40/kg return for profit.

Some companies have a formula for parts as well as whole birds. Some contracts involve buying the sum of all the parts, but some would not. It would depend on the agreement. There would be an agreement on the weighted average of each part, and the pricing would go up or down with live accordingly. For instance, one agreement with a customer might show that for every penny live change a wing could go up $0.02/kg, but a boneless breast $0.04/kg. Another customer might have an agreement where every change in $.01/kg in live results in a $.015 /kg change in price for whole birds, $.05/kg for boneless breast, $.04/kg in boneless skinless thighs, $.02/kg in legs back attached and $.03/kg for whole wings.

While this discussion is based on the live bird, there are formulas that could be based on the Chicken Farmers of Canada market pricing or even U.S. pricing. In other words, there could be formulas based on a market price or a combination of the market price and the live bird. In any event, the practices and methods of the live formula discussion above could be applied.

Spot Market

Spot market pricing is based on supply and demand for chicken. Product is usually bought and sold within a 1-3-week timeframe by definition. Processors and buyers will agree to a price for a set quantity through a negotiation bid and ask process. In times of tight supplies and strong demand processors will be in a position to ask and receive higher prices. The opposite is true for long supplies and weaker demand. As noted, about 25% of the chicken would be traded in this way.

Forward Purchases

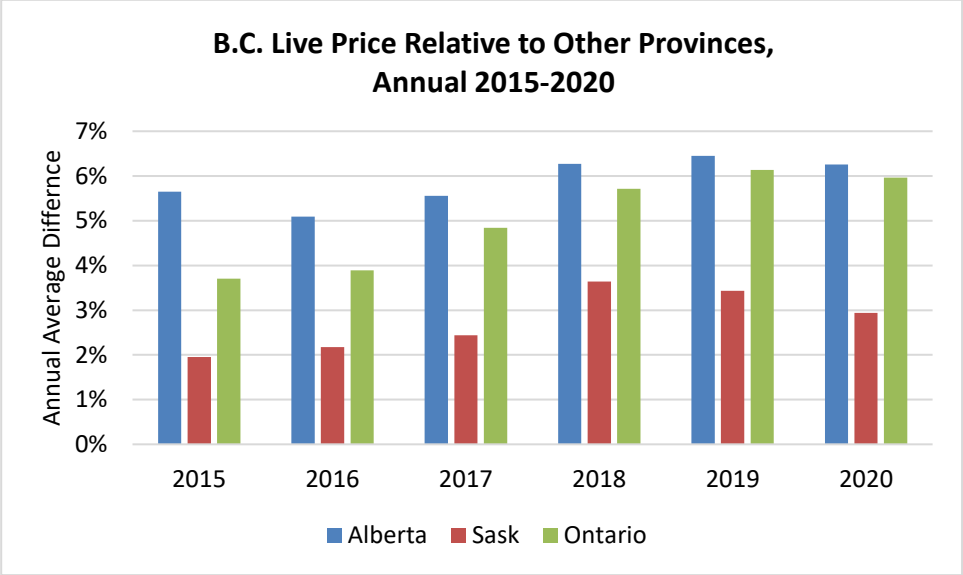
Forward purchases would be made by processors and buyers for product to be delivered at least three weeks and typically several weeks into the future. Price levels would be negotiated between buyers and sellers based on anticipated supply and demand at the time of delivery. The best example of this type of trade is for retailer features. If a retailer is planning a boneless breast feature ten weeks out, they will negotiate with a favored processor or all available processors for the best price. This could also include U.S. product.

4.7 Processor Prices in B.C.

The purpose of this section is to examine relative B.C. chicken processor price levels versus other regions. The Chicken Farmers of Canada publishes national chicken parts values at the wholesale level. There are no published B.C. or other provincial chicken processor prices. As such to assess B.C. pricing relative to other regions, it must be estimated using a variety of methods.

As noted above, likely the most important or largest share of chicken is priced on formula referencing the live bird price. This is presented in Figure 4.7. Over the period from 2015 through 2020, B.C. live chicken costs have run about 5% higher than Ontario and about 6% higher than Alberta. The B.C. average tends to be about 3% more than Saskatchewan.

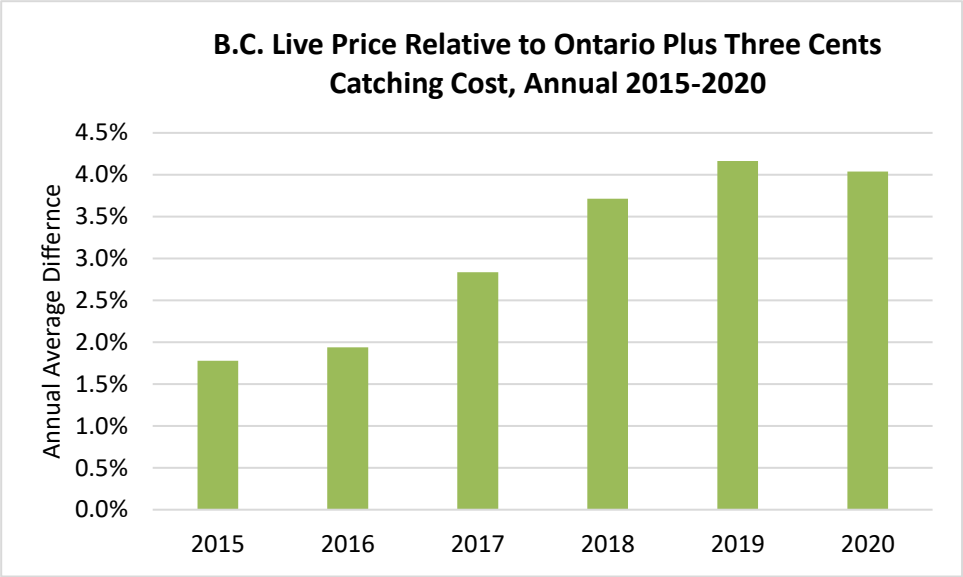
Figure 4.7



Source: Agriculture Canada, Market and Industry Services Branch

It is important to note that with reference to live pricing, that Ontario processors pay for bird catching costs. In BC and the west, the grower pays for the catching which costs about $0.0365/kg. The simplest way to capture this catching factor in price comparisons is to add the catching cost to the Ontario price. In other words, the Ontario grower return is about $0.03-0.0365/kg higher given that producers do not have to pay for catching. When that is factored into the price comparison, the BC live cost is just 3% more than Ontario on average over the 2015-2020 period (Figure 4.8).

Figure 4.8



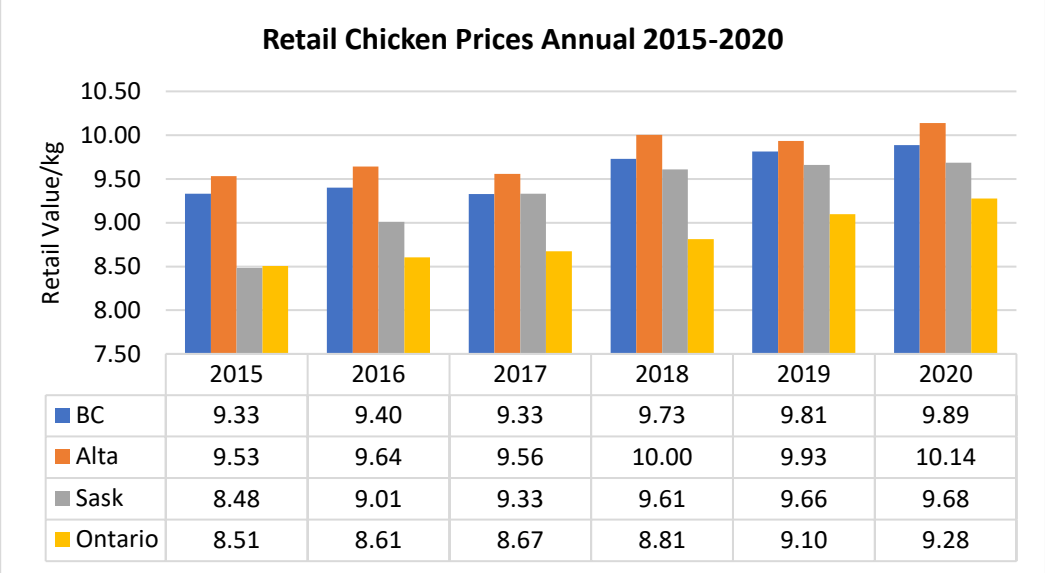
Given those pricing differentials, it is logical to expect that B.C. processor formula pricing with grocers and foodservice will be at least 5% higher than Alberta and about 3-5% higher than Ontario. Differences from that point, at least on formula purchases would be a function of the competitive environment and market leverage of the buyer and seller. With that acknowledged, given that pricing is some form of cost-plus, 5% is a good starting point to determine the relative differential between B.C. and other regions, at least on formula sales, which could be 50% of the market.

Another way to determine pricing differentials between provinces at the wholesale level is to look at chicken prices at the retail level. Retail price differentials between regions are a good gauge of relative processor prices between regions. That is because grocers generally take the cost of the goods and add a margin on regularly priced items. While it is true that the grocer margin reflects many factors, anecdotally grocers state that that over time the retail differential is a good measure of relative costs.

The starting point of measuring B.C. processor prices compared to other regions, therefore, is to look at the retail chicken prices. One source of retail pricing is Nielsen MarketTrack. That data set takes total dollars sold divided by tonnage to get an average retail per kilogram. Based on that data, over the 2015-2020 period, B.C. chicken prices averaged about 2% less than Alberta prices; 3% higher than Saskatchewan and 9% higher than Ontario. This is summarized in Figure 4.9. Based on that Nielsen MarketTrack Data over the 2015-2020 timeframe, it is reasonable to assert that B.C. prices at the processor level are 2% less than Alberta prices; 3% higher than Saskatchewan and; 9% higher than in Ontario. This is a reasonable assertion because it is based on annual average prices over a six-year time frame.

Further assessment of the retail price differential can be done using Agriculture Canada's Nielsen data for individual cuts. For example, in Figure 4.10, comparing boneless breast retail prices shows that over the 2015 to 2020 period, B.C. prices were less than Alberta, but more than the other two prairie provinces and Ontario. The Ontario differential was a positive 12% while the Alberta differential was a negative 1%. Similar results are shown using straight average pricing of whole bird, boneless breast, wings, and legs in Figure 4.11. B.C. prices are 1% less than Alberta and 15% more than Ontario.

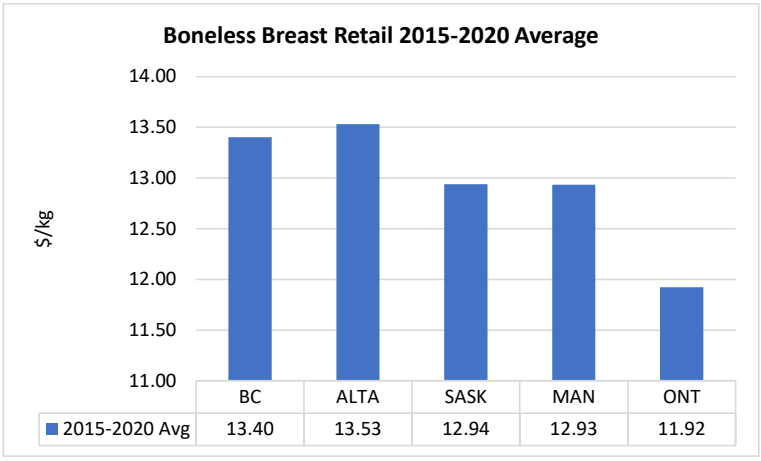
Figure 4.9



	2015	2016	2017	2018	2019	2020
BC	9.33	9.40	9.33	9.73	9.81	9.89
Alta	9.53	9.64	9.56	10.00	9.93	10.14
Sask	8.48	9.01	9.33	9.61	9.66	9.68
Ontario	8.51	8.61	8.67	8.81	9.10	9.28

Source: Nielsen MarketTrack Data

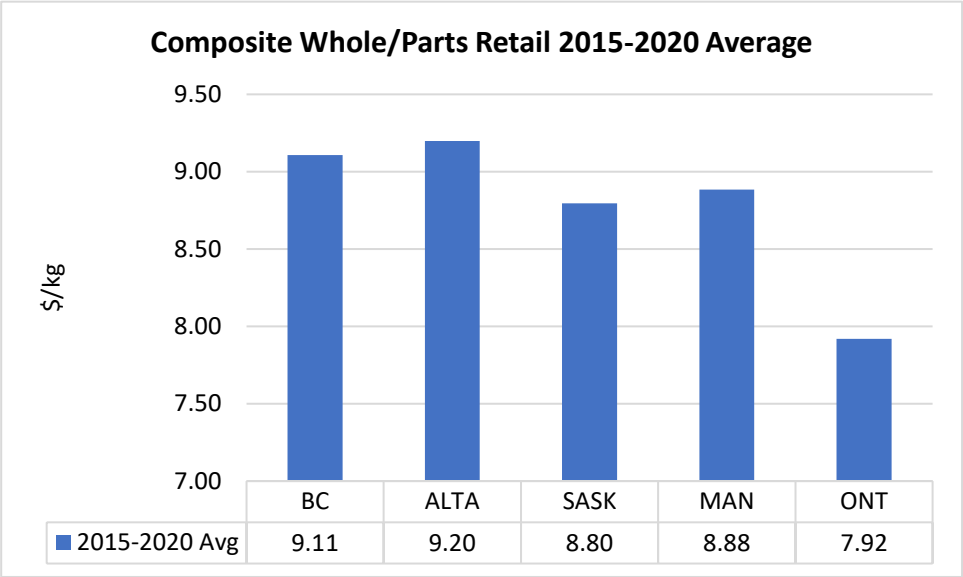
Figure 4.10



	BC	ALTA	SASK	MAN	ONT
2015-2020 Avg	13.40	13.53	12.94	12.93	11.92

Source: Nielsen Company, compiled by Agriculture and Agri-Food Canada, Animal Industry Division, Market Information Section

Figure 4.11

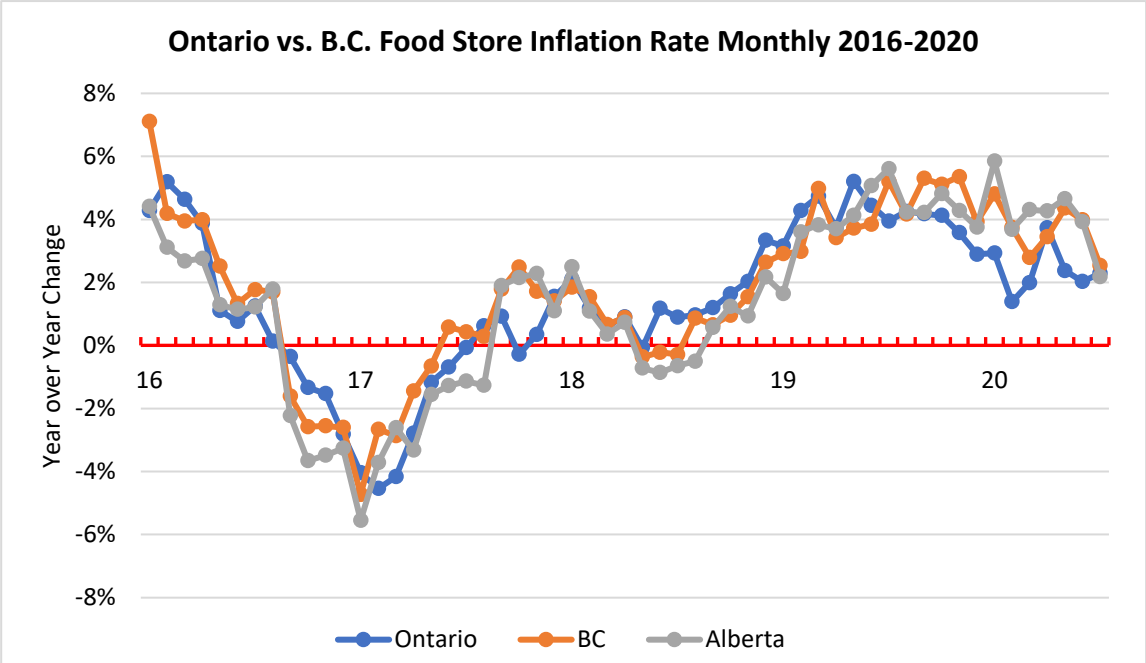


Source: Nielsen Company, compiled by Agriculture and Agri-Food Canada, Animal Industry Division, Market Information Section

As noted, the retail differential between provinces is a good gauge of processor price differentials. The differentials between provinces, however, is impacted by local grocery market competition. For example, the Ontario market has a much greater presence of discount grocery banners such as No Frills and FreshCo compared to B.C. Ontario also tends to have more aggressive grocery featuring than the B.C. market. As such, some of that 15% differential on retail prices between Ontario and B.C. can be explained by the level of competition. That is, it cannot be said based solely on retail prices that B.C. chicken processor prices are 15% greater than Ontario. Conversely, while B.C. retail chicken prices are about 1% less than Alberta, that differential is much too small to make any assertions about B.C. processor prices compared to Alberta.

Regarding the grocer competitive situation in Ontario, B.C., and Alberta, one way to assess that is by looking at food from store inflation rates (Figure 4.12). Statistics Canada Consumer Price Index Food from Stores inflation rates have averaged 2% from 2016 through mid-Year 2020 in B.C. The Ontario and Alberta average over that time was 1%. That is the B.C. inflation rate of two times that of Ontario and Alberta. That would imply that a significant component of the chicken price differential between Ontario and B.C. would be due to more competitive pricing in Ontario versus B.C.

Figure 4.12



Source: Statistics Canada

That differential inflation rate between Ontario and B.C. can be useful to derive conclusions about the chicken processor price differential between Ontario and B.C. Given that the B.C. store inflation rate is two times that of Ontario (and Alberta), it is logical to assert that half the retail price differential is due to the competitive environment. Taken to its conclusion the argument here is that the 15% processor price differential would actually be closer to 7-8% between Ontario and B.C. Incidentally, that estimate of a 7-8% differential between Ontario and B.C. processors is consistent with industry anecdotal estimates. Applying that same line of argument to B.C. and Alberta would lead to the conclusion that there is little if any difference in processor prices between the two provinces.

5.0 Observations and Conclusions

5.1 Updates to Cost Models

The updated data feeding into chicken processing and hatchery show that for 2020, on a representative basis, costs are up. Compared with a 2019 reference, hatchery costs in 2020 for BC are up approximately 3¢/chick. This increase in prices was fairly constant across BC, Manitoba, and Ontario, and driven by increases in hatching egg prices. The exception was Alberta, where hatching egg prices hardly changed 2019-2020. These changes were sufficient to make Manitoba and BC the highest-priced hatching eggs among provinces compared, followed by Alberta and then Ontario.

For chicken processing, compared with a 2015-18 baseline and adjusting for market disruptions due to Covid-19, total processing costs for BC are up about 12¢/kg. This is consistent with increased costs for Manitoba. Ontario costs were up about 10¢/kg and Alberta costs increased by 6¢/kg. These changes were sufficient to make Ontario the low processing cost jurisdiction tightly followed by Manitoba, then Alberta, and with BC the high processing cost region. The model allows for regional variation in input pricing on live birds and labour, and of these variation across provinces was the largest in live birds. Increases in live bird prices were the largest in BC and Manitoba.

Regarding BC live chicken pricing relative to other provinces, the observed changes are not surprising as they mechanically follow Ontario live bird pricing, with small adjustments. In turn, the live price is closely related to feed costs. The Western Canada Chicken COP study observed feed cost spreads between BC and Alberta of +4-6¢/kg between 2017 and 2019, and observed that "the overall feed ingredient costs clearly increase from province to province from Ontario through BC."

5.2 Supply Chain Costs

Figure 5.1 below presents the combined incremental costs in the chicken supply chain by chain segment for the four provinces considered. The figure reflects the additional costs incurred by each downstream level, based on a 2.2 kg live market weight (used in chick and hatching egg conversion). To be clear, it is a mix of prices from external COP-based prices and formulas (hatching eggs and broilers) and estimated total costs from models (hatchery and processing).

With regard to BC, the wholesale price funds the overall supply chain cost, given by the adjusted national average cutout value $2.66/kg live. Of this, $.25/kg is the processor margin, $.68/kg is the processing cost, $1.37/kg is the live bird cost, $.10/kg is the hatchery cost, and $.26/kg is the

Figure 5.1 Distribution of Chicken Supply Chain Costs Up to Wholesale Level

hatching egg cost.[3] When this breakdown is compared across other provinces, the following observations are evident:

- Even though the national average cutout value is adjusted upward for the west, BC processors have almost the same margin as Ontario (26¢/kg for BC vs. 25¢/kg for Ontario).
- BC and Alberta have the highest processing costs (both about 68¢/kg).
- BC has the highest broiler production cost, based on its existing live price and consistent with the feed cost discussion above.
- The incremental costs in the hatchery vary little across provinces, at the equivalent of about 10¢/kg.
- The production costs in hatching eggs, based on the broiler-breeder COP, put BC at a mid-level, higher cost than Ontario but slightly lower than Manitoba and Alberta.

[3] For the purposes of interpretation, note that the pricing used in some segments incorporates the costs of upstream segments. For example, the BC live chicken price is $1.73- however this include the chick cost. The estimated incremental cost in broiler production, excluding broiler breeders and hatchery is $1.37.

The above observations are based on a standard marketing weight of 2.2 kg. However, as noted in the Western provinces COP study by Grier, actual market weights for BC are slightly below this (2.15 kg) Alberta and Ontario are above 2.2 kg, and Manitoba is well below (2.05 kg). When the difference in weights is accounted for, it slightly accentuates the observations made at standard weight. Overall, the observations are broadly consistent with a disadvantage in feed costs explaining the cost-competitive positioning of the BC chicken supply chain.

5.3 Market Trends Relative to Supply Chain Costs

The supply chain cost-based estimates interface with major market trends and information.

- While there is a two-way flow of chicken exiting and entering the BC market, the net flow is about 9000 tonnes out of BC, in all likelihood to Alberta which is chicken deficit, and Alberta probably also pulls in chicken from Saskatchewan and Manitoba.

- The major processors headquartered or otherwise operating in BC (Hallmark, Sunrise, Sofina/Lilydale) also have operations in the Prairie provinces. They lack the incentive to transfer product into the BC market from the prairies as, from a competitive position, they would be competing with themselves. By itself this means that, on fresh chicken, pressure from out of province competition in BC should be limited.

- "Local" has been promoted extensively in BC as a marketing proposition. This logically strengthens the marketing position of BC processors in that segment of the market, as well as more generally.

- The majority of chicken product sold by processors is on a formula contract, rather than a negotiated spot basis. The CFC carcass composite data used here, based on the spot market, is thus drawn from a minority of sales. However, data on the retail pricing of chicken (whole birds and breasts) shows that BC have been well above Ontario and most of the prairies, and just under Alberta. Anecdotal industry sources suggest BC wholesale chicken prices (accounting for formula process and spot market prices) are 7-8% higher than Ontario, consistent with relative grocery store price differentials.

- The processing plant model operates under the assumption that, compared with the CFC carcass composite data, prices in Western Canada are $.10/kg higher. However, if we assume that Ontario and Quebec are the principal determinants of the national composite, and BC is actually priced 7-8% higher than Ontario- as the marketing discussion suggests- then this price markup for BC versus the national is quite conservative. At a spread of 7.5% over the national composite, the Western Canadian wholesale price spread would be + $.27/kg. So the processing cost model generates a processor margin

which is probably quite conservative. If the BC markup versus the national average is increased from $.10/kg to $.27/kg, the processor margin estimated for 2019/20 (adjusted for Covid-19) increases from $.25/kg to $.37/kg.

- Relatively little product sold by processors is priced in an open market. This means that it is unlikely that BC processors face pricing pressure associated with being a surplus supplier.

- The situation is somewhat different for frozen and further processed products. In this case, it is much more likely, or even prevalent, that product enters into the BC market from other provinces. Further processed and frozen product may account for about 30% of the market, and it is not a big growth area.

5.4 Conclusions

The observations above suggest the following. A disadvantage in feed costs relative to Ontario and the Prairies characterizes the farm segments of the BC supply chain. There are no feasible alternatives to this. By itself this creates pressure and some urgency for the live price to effectively capture this dynamic.

The updates to data on hatchery and processing plant costs suggest marginal increases in cost and decreases in processor margin, especially when compared with 2017-18. However, the findings need to be interpreted in the context of the marketing situation facing BC processors. It is reasonable to expect that chicken processors have relatively strong terms of trade with BC retailers on fresh product, because there is little concern of competition coming in from outside of the province, and retailers put marketing emphasis on local product. BC is surplus chicken, but with the spot pricing dealing with a small minority of product sold by processors to retailers, it is unlikely that overall processor revenues are pressured much by the surplus volume. Furthermore, given the supply management allocation system, buyers have limited alternative sources of supply.

Industry anecdotal estimates suggest that wholesale chicken pricing in BC is 7-8% over Ontario wholesale pricing. This is well above the western price spread assumed in the processing plant model, meaning the that the processor margins estimated for BC from the model are likely to be conservative, by perhaps 10¢/kg or more.

Overall, this suggests a broadly favorable marketing environment for BC chicken processors which perhaps could be parlayed into a more favorable environment for producers. It also presents a market environment in which it is reasonable to think that producers and processors could work together to build market value.