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Review of Regulated Marketing In British Columbia

The Economic Environment: Implications for the Regulated Marketing System

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1.0 INTRODUCTION

1.1 BACKGROUND

This report is the second part of a three part review of regulated marketing in British Columbia undertaken by the British Columbia Ministry of Agriculture, Food and Fisheries (BCMAFF). The focus of this report is the implications of the economic environment for the objectives, policies and regulations of the regulated marketing system.

The regulated marketing system in British Columbia includes both supply managed and non-supply managed commodities. The supply managed commodities include chicken, eggs, turkey, milk/dairy and hatching eggs. The non-supply managed commodities include hogs, cranberries, mushrooms and vegetables (which includes greenhouse vegetables).

The report is organized as follows: Section 1 describes the basic problem that is at the core of this study, the resulting research problem, the objectives and the methodology of the study. Section 2 contains the historical context of regulated marketing, and Section 3 discusses the current economic environment. Section 4 addresses the relevancy of the historical objectives of regulated marketing and the implications for the regulations.

1.2 THE PROBLEM

There are several aspects of the current economic environment that make it different from the economic environment that existed when regulated marketing was instituted in British Columbia. These include: greater market segmentation as a result of changing consumer demographics, incomes, and preferences; industry consolidation at the producer, processor and retail levels; issues regarding the competitiveness of the regulated marketing industries; and actual and potential provisions of multilateral trade agreements and the movement toward globalization.

The challenge facing the British Columbia regulated marketing system and BCMAFF is to determine what the implications of the current economic environment are for the objectives, policy and regulations of the regulated marketing system. Understanding these implications will provide the basis for any changes that need to be made to the regulated marketing system to ensure that it is the optimum system given the current economic environment.

In order to determine the implications of the current economic environment for the regulated marketing system, the historical context of the system must be understood. This is being addressed in detail in Part One of the overall review of regulated marketing, and will be discussed only in a general context in this study. Next, the current economic environment needs to be examined to understand how it differs from the economic environment faced by regulated marketing in the past.

Given the current economic environment, the historical objectives of the regulated marketing system must be reviewed to determine if they continue to be relevant, and if new or additional objectives should be considered. These decisions regarding the objectives of regulated marketing will have implications for the legislative policy and actual regulations that govern the regulated marketing system. Therefore, these implications must be addressed through an analysis of the effects of existing and potential on the current and potential future objectives of BC's regulatory system.
Accordingly, the questions that must be addressed in this study in order to solve the problem are:

- What is the current economic environment and how does it differ from the environment that existed when regulated marketing was instituted in British Columbia?
- How does this economic environment affect the historical objectives of regulated marketing? Are they still relevant? Are there new/additional objectives that are relevant?
- Do the existing regulations actually accomplish the objectives that were established in the past and that may be appropriate for the future?
- What changes are needed in regulations to achieve the new objectives?

1.3 OBJECTIVES

The research problem described above presents the following objectives for this study:

1. Describe the current economic environment in which the regulated marketing system in British Columbia is operating, and how this environment differs from the one that existed when regulated marketing was instituted.
2. Given the current economic environment, determine which of the historical objectives are still relevant, which are no longer relevant, and if new or additional objectives are relevant.
3. Examine the implications of the economic environment and recommended objectives for the regulated marketing system.
4. Provide recommendations for policy changes to the regulated marketing system.

Where appropriate, these objectives will be addressed separately for the supply managed and non-supply managed sectors.

1.4 METHODOLOGY

1.4.1 Objective 1

The methodology involved in describing the current economic environment is part qualitative and part quantitative. In order to be as accurate as possible in describing the current economic environment relative to the environment of the past, relevant data will

be utilized. This will include data that shows the performance of the British Columbia regulated marketing commodities (to the extent possible) relative to national and provincial trends. The data therefore provides the framework for the qualitative description of the economic environment.

1.4.2 Objective 2

The relevancy of the historical objectives and any new/additional objectives will be examined in light of the current economic environment. The description of the economic environment will provide the basis for the rationale as to why or why not an objective is relevant. A full description of the rationale regarding the relevancy of each objective will make clear the connection between the economic environment and the relevancy of the objectives

1.4.3 Objective 3

The implications for the regulated marketing system of the current economic environment and resulting objectives will be evaluated using the following general criteria:

- Are consumer signals sent and received?
- Can the system respond to these signals?
- Are there unnecessary costs from the regulations?
- What economic benefits result from the regulations?
- Do the regulations enhance or limit adjustment?

These criteria represent a modification of the *Competitiveness Test for Regulation* that was developed by the George Morris Centre for the Agri-Food Competitiveness Council nearly ten years ago. Modification occurs for two reasons. First, in this case there are additional concerns other than competitiveness that need to be addressed. As indicated above, the current environment also includes new international trade rules, a market place that is increasingly segmented on the consumer side, and is increasingly concentrated at the processing and distribution levels.

Second, the time frame for this study does not allow for a detailed analysis of every regulation for every product. Hence we modify the test to analyze the effects of sets of regulation.

The results of this analysis will be addressed separately for the supply managed and non-supply managed sectors.

1.4.4 Objective 4

Recommendations for policy changes to the regulated marketing system, and the rationale for these recommendations, will be based upon the results of Objective 3.

2.0 HISTORICAL CONTEXT

The first provincial legislative framework governing regulated marketing in British Columbia was established by the Natural Products Marketing (BC) Act in 1936. This Act is still in effect as the overarching legislation for regulated marketing, although it has been amended since it was first passed. The current regulatory framework was developed largely in the mid-1960s, and most of the current Boards and Commissions came into being during the same time period. The BC Hog Marketing Commission was instituted in 1980, and the BC Broiler Hatching Egg Commission in 1993.

The rationale for the inception and development of regulated marketing in Canada and in British Columbia is primarily found in the economic environment of the time. The original policy for market regulation was based on perceptions that farm incomes were low and unstable relative to non-farm incomes, and that government intervention was required to "level the playing field" between primary producers and processors. Such action was needed to address the issue of market power, where relatively large numbers of regionally dispersed producers sold to a more concentrated and economically powerful processor sector.

This market power on the part of processors was the result of a combination of market conditions. The relevant market conditions included:

- Technological change at a pace that resulted in production increasing faster than demand, which created surpluses and drove prices down
- Inelastic supply in the short-run of agriculture commodities and asset fixity
- Inelastic demand for many agricultural products, notably dairy and eggs
- The perishable nature of most agricultural products, which meant a reduced bargaining position for producers and low prices
- A small number of firms controlled most of the processing and retailing industries, giving them significant market power in dealing with producers

The resulting effect of this economic environment was market instability and low producer incomes, as producers lacked the bargaining power to extract higher prices for their commodities from processors and retailers.

Regulated marketing was seen as a way to provide producers with bargaining power, to match supply to demand and therefore improve producers' economic situation. The historical (stated) objectives of regulated marketing reflect this. They are:

1. Improve and stabilize producer incomes
2. Improve the stability and predictability of commodity prices by 'dampening' volatile price swings
3. Ensure stable, predictable and adequate supplies
4. Promote and encourage the economic viability of small closely held (family) farm businesses

3.0 THE CURRENT ECONOMIC ENVIRONMENT

This section describes the current economic environment facing the British Columbia regulated marketing system, and how it differs from the environment at the time when regulated marketing was instituted. The section begins with an overall description of Canadian food industry sales and profitability, as this is the general context within which the agricultural regulated marketing system exists. This is followed by a description of the major areas of concern to the regulated marketing system: competitiveness, market segmentation, industry consolidation and supply management issues and challenges.

3.1 CANADIAN FOOD INDUSTRY SALES AND PROFITABILITY

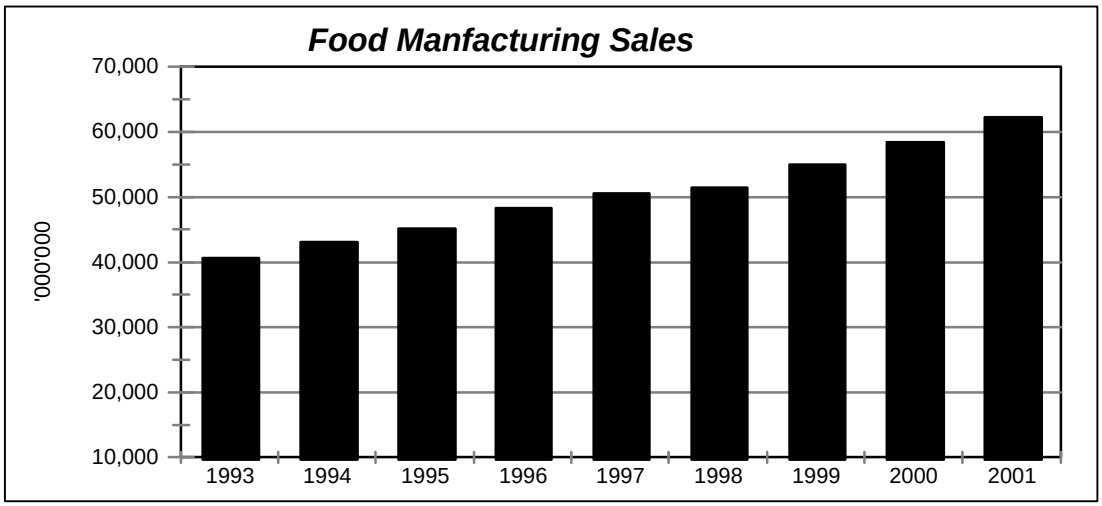
The purpose of this section is to provide an overview of the basic economic trends and scope of the Canadian food manufacturing and distribution industries. By reviewing the key sales and profit components of the industry beyond the production sector, it is expected that the functions of the regulated marketing system can be better assessed and analyzed with regard to its role and contribution to the industry.

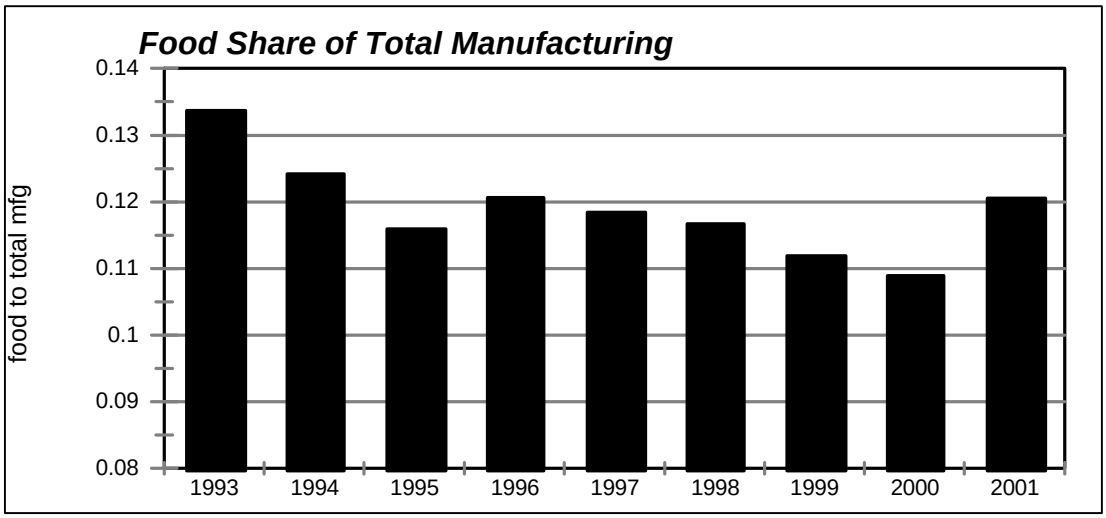
3.1.1 Sales and Share

Throughout the 1990's the Canadian food manufacturing industry lost share of total Canadian manufacturing sales. It is apparent now that 2001 was the first year that the food industry gained sales share in many years. The gain in share is testimony both to the fact that Canada was enduring slower economic growth and that the food industry is largely immune from many of those negative forces.

During 2001, the food-manufacturing sector grew by nearly 6.4% while total manufacturing (including food), declined by 5.2%. The growth in food and the decline in overall manufacturing are both very significant and surprisingly large numbers, especially since they are in opposite directions. Over the past eight years, food manufacturer sales have grown at an average rate of 5.5%. Total manufacturing sales have grown at a rate of 6.8%. For the year 2001 Canadian food manufacturing sales totaled $62.23 billion. That sales figure, in combination with the sales for all of manufacturing, means that food took a 12% share of all manufacturing sales. That compares to less than 11% in 2000 and more than 13% in 1993. Figure 3.1 shows food manufacturing sales from 1993 through 2001 and the food industry's share of total manufacturing sales over the same time frame.

Figure 3.1

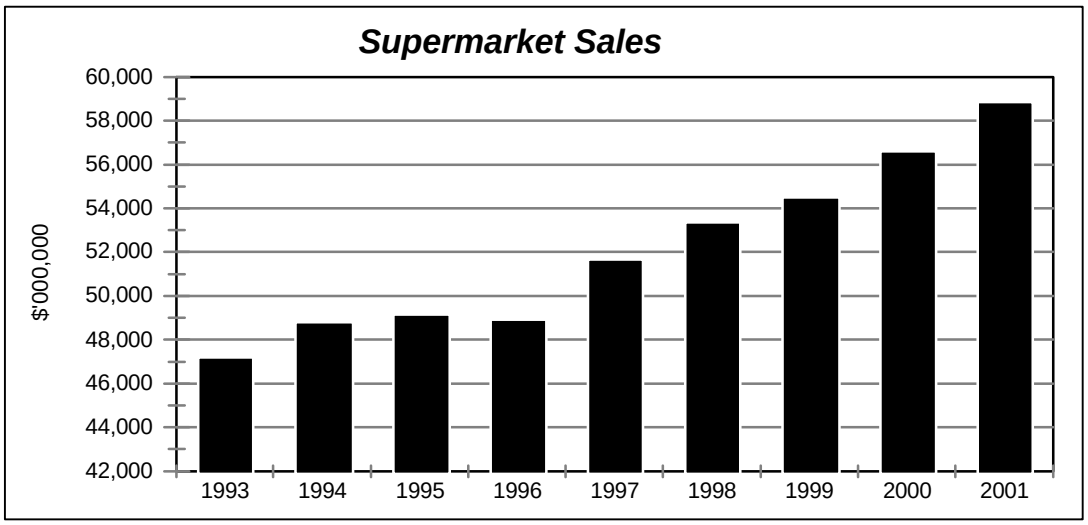




Food retailers also enjoyed a relatively strong 2001. Statistics Canada shows that sales totaled $58.9 billion in 2001, compared to $56.6 billion in 2000 for an increase of 4%.

The grocery sales share of total retail sales in Canada also declined through the 1990's. A relatively solid increase in grocery sales during 2001, coupled with a more modest increase in all retail sales, meant that grocery share increased. In 2001 grocery sales comprised about 21% of all retail sales. That compares to 20.4% in 2000 and over 24% in 1993. Figure 3.2 shows estimated supermarket sales for 2001 compared to annual sales for the previous eight years. Based on the performance of prices, (see section on Concentration below), it appears that supermarkets are making sales gains via volume as opposed to price hikes.

Figure 3.2



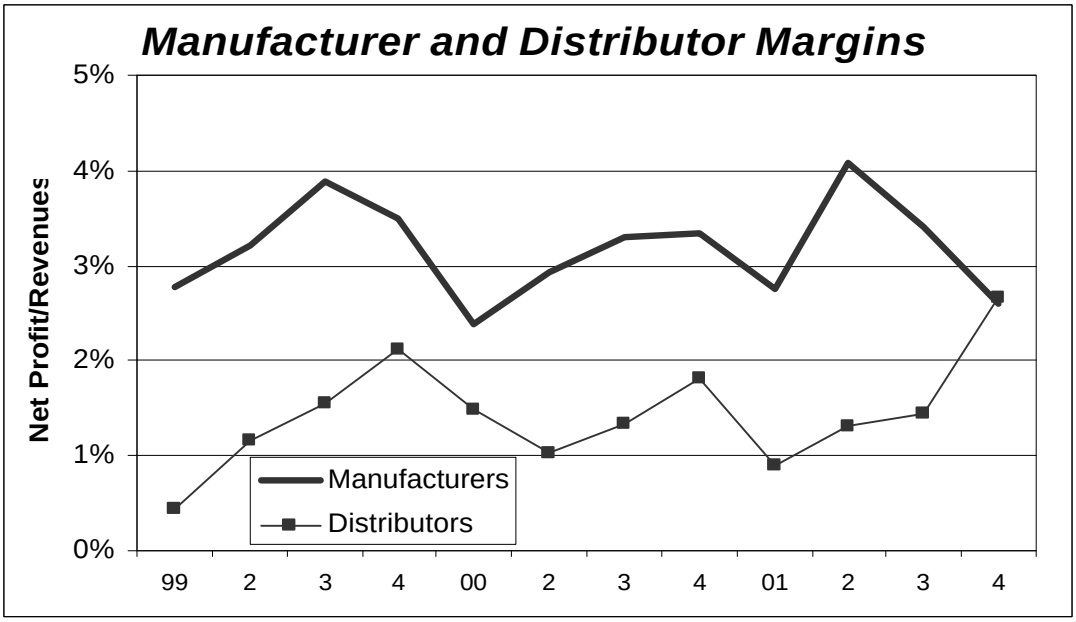
3.1.2 Profitability

Canadian food manufacturers finished 2001 on a sour note as net profits declined by 22% in the fourth quarter compared to the fourth quarter of 2000. Despite the set-back in the last quarter, however, food manufacturers saw net profits climb in 2001 by 9%. This profit increase was driven by the strength of exceptional performances in the first three quarters. Net margins for food manufacturers averaged just over three percent in 2001, compared to under 3% in 2000.

In comparison to all manufacturing sectors in Canada, food manufacturers had an exceptionally good year, not withstanding the fourth quarter. According to Statistics Canada, profits for all manufacturers declined by 35% in the fourth quarter. That was on top of dismal performances in the previous four quarters going back to 2000. Overall for all Canadian manufacturing, net profits fell by 40% in 2001 compared to 2000. Net margins tend to be better in all manufacturing than in food manufacturing but the difference eroded last year. For example, during 1999 and 2000, net profit margins for all manufacturers were 5.6% of revenues. In the same period, food manufacturer net margins were just 3.2%. In 2001, however, manufacturer net margins were trimmed to just 3.7%, barely above those of food manufacturers.

Food manufacturer margins in comparison to grocery distributor margins are shown in Figure 3.3. Grocery distributors are defined here as the combination of Statistics Canada's food and beverages retail stores category plus the food wholesalers-distributors category.

Figure 3.3



The fourth quarter is traditionally a good quarter for grocery distributors and 2001 was no exception. Quarter over quarter sales increased by 5% for the industry and net profits soared to record levels. As a point of reference, for the first three quarters, distributors' net margins were the traditional 1%. In the fourth quarter, margins jumped to three percent. For the year, grocery distributors saw net profits increase by 15% compared to 2000.

In comparison, the total Canadian retail trade (all retail sectors including food, hardware, general merchandise, furniture etc) had a troublesome 2001. Overall profits were down by 51% and net profit margins were trimmed in the fourth quarter.

As a summary point, it can be seen that overall food manufacturer margins averaged about 3% over the past three years while distributor profits averaged about 1.5%. This is not to imply that manufacturing is more profitable than distribution. This simply demonstrates the nature of profitability within the industry. Distribution is more of a low margin, high volume business. Manufacturing, on the other hand, tends towards slightly higher margins on sales but slower overall turnover.

3.1.3 Employment

Both food manufacturers and grocery stores saw increases in employment during 2001 compared to 2000. Figure 3.4 shows the annual average number of employees of grocery stores and food manufacturing firms in Canada from 1991 through 2001.

Both grocery stores and food manufacturing employment hit record levels in 2001. Food manufacturing employment increased by nearly 3% in 2001 while grocery stores increased their payrolls by 2%. Total employment in all industries in all of Canada

increased by 2.4%. In contrast to the growth in food manufacturing employment, the number of jobs in all manufacturing sectors actually declined modestly during 2001 compared to 2000.

Figure 3.4

3.2 COMPETITIVENESS

Competitiveness has always been an underlying concern in agri-food and in agri-food policy. It became well articulated in the late 1980's and early 1990's, with Canada's entry into the Canada/US Trade Agreement (CUSTA), and the publication of Dr. Michael Porter's book, *The Competitive Advantage of Nations.* As international trade barriers have declined over the past decade, competitiveness has increased in importance.

Unfortunately, Porter refrained from defining the term competitiveness. This has created a problem of language regarding the word. Some people use it as a proxy for cost. Some think of it as rivalry. Some use it as it should be. In this section, we define it, discuss the potential relationship between regulation and competitiveness, and examine some evidence about the relative competitiveness of some aspects of BC agri-food.

3.2.1 Defining and Characterizing Competitiveness

Two organizations, Canada's Agri-food Competitiveness Task Force, and the US Office of Technology Assessment, actually defined the word competitiveness. The latter definition specifically focuses on the competitiveness of a nation and emphasizes productivity – i.e. countries that have the highest degree of competitiveness are those

that have the highest productivity. Productivity is usually measured as labour productivity or as multi-factor productivity[1].

The Agri-food Competitiveness Task Force developed a definition that can be applied to a firm, an industry, a sector, or an economy. It is:

Competitiveness is the sustained ability to profitably gain or maintain market share.

This definition has three components: market share, profitability and time, because of the use of the word "maintain". So, it is robust enough that one can attempt to undertake some measurement. However, above the level of the individual firm, "profitability" is very hard to measure in any practical sense because of difficulties with accounting practices, the fact that many firms are privately held and, therefore, do not report their data or, when they do, the data are reported on a consolidated basis. From a practical perspective, industry information is best approximated by productivity measures. Therefore, at the limit, the two definitions merge.

Another aspect of the definition of competitiveness is that it is defined as an **outcome, not a behaviour.** It represents the end point of strategy in that it measures profits and share. It is not about how one acts in gaining profits and share. Thus the behaviour of firms or industries that have a high degree of competitiveness may be competitive (rivalrous), or it may be collaborative, or it may be characterized (as is increasingly the case in many industries) as "co-opetition", a situation in which two or more businesses may collaborate in one area of the market, and compete in another.[2]

A final aspect about the Task Force's definition is that it implicitly accounts for different approaches to business strategy. At a very generic level, firms compete either on the basis of low cost or differentiation[3]. By expressly saying "…profitably gain or maintain market share…", the definition recognizes that a firm or industry intends to convince customers that they should buy the firm's or industry's product(s). Whether it does so on the basis of a low cost strategy or on the basis of some value that is added through differentiation, is immaterial to the definition. Moreover, when it comes time to measure, productivity (as a proxy for profitability, if properly measured) will rise whether it is a result of lowered cost or increased value. So, a firm or industry whose market share and profits or productivity are rising over time has a high degree of competitiveness. An industry or firm whose share and productivity are declining is likely losing competitiveness[4].

---

[1] See *A Comparative Analysis of Productivity and Competitiveness in Agri-food and Other Industries in Canada*, Larry Martin and Kate Stiefelmeyer, George Morris Centre, 2001.

[2] None of the foregoing is intended to imply that actions that restrain competition is part of the desired behaviour. Our point is simply that competitiveness is about outcomes, not behaviour.

[3] Many business texts also include "niche" in the list of generic strategies. However, we contend that it is merely a specific case of differentiation.

[4] The other two alternatives are indeterminate (Eg. Market share is increasing but productivity is declining.) Therefore, they require more investigation to indicate whether they are gaining in competitiveness.

By emphasizing differentiation as above, competitiveness can be about uniqueness, as we have argued elsewhere[5]. In fact, the relatively recent literature on the resource-based theory of business strategy concludes that the source of sustained competitive advantage for firms that follow differentiation is to develop internal processes within the organization ("organizational resources") that are not able to be imitated by competitors. One major application of this notion to businesses in the agri-food sector is in the area of product development. There are no or very few products in the sector that cannot be imitated by competitors. Therefore, if a farm or firm develops a new product, it gives them, at best, a first mover advantage. Competitors will quickly develop copies or "me too" products and the initial profit advantage will be reduced – the product becomes "commoditized". So, over the long term, sustainably successful companies are those who continuously innovate so they can enjoy a stream of first mover advantages from a series of products or product improvements[6].

3.2.2 Regulation and Competitiveness

When one thinks of competitiveness as the successful result of one of the two fundamental private business strategies, then the potential relationship between regulation and competitiveness comes clearly into focus: regulation promotes competitiveness when it reduces cost and/or assists in the ability of firms to differentiate; it reduces competitiveness when it adds cost and/or gets in the way of differentiation. As with other parts of this review, differentiation is successful if one starts from the assumption that markets are segmented. If so, then successful differentiators are those who can be responsive to what consumers and customers want. It follows, then that regulations aid competitiveness if they aid firms in being responsive to market needs.

Of course, the flip side of the competitiveness arguments represents the arguments in favour of protection – stop product from somewhere else coming here because they have an advantage. Or stop someone else from responding to market needs because we can't or don't want to. The argument becomes one of survival vs. competitiveness: i.e. "if we can't survive here because of economic disadvantages, then protect us with regulation and gain the economic activity or aesthetic value (e.g. from keeping land rural, from small family farms, etc) from our survival."

In order to gauge whether regulations are contributing to or hindering BC's competitiveness, a "competitiveness test" will be used in following sections of this report[7].

---

[5] *Public Policy Implications of the Resource-Based Theory of Firm Strategy. A Discussion Paper for Bureau of Competition Policy*, Randall Westgren and Larry Martin, George Morris Centre, 1996.

[6] See Kevin Grier's forthcoming note *Lessons from Quaker Oats*, George Morris Centre, May 2002, for an illustration of this approach.

[7] *Competitiveness Test for Regulation: Tools for Reforming Canada's System of Technical Regulation in the Agri-Food Sector to Enhance Competitiveness,* George Morris Centre, 1993.

3.2.3 Some Evidence on Competitiveness of BC's Agri-Food System

As an overview approximation of the competitiveness of BC's agri-food system, BC's market shares for a number of regulated products were analyzed. The first four figures show BC's performance with respect to the food manufacturing industry. Figure 3.5 contains BC's exports of manufactured food products as a percentage of total Canadian exports of manufactured food. BC's share declined from 13% in 1992 to under 8% in 2001. This is also reflected in the fact that BC's share of total manufactured food shipments (export and domestic) fell, and BC's share of total Canadian employment in food manufacturing declined (Fig 3.6).

Figure 3.5

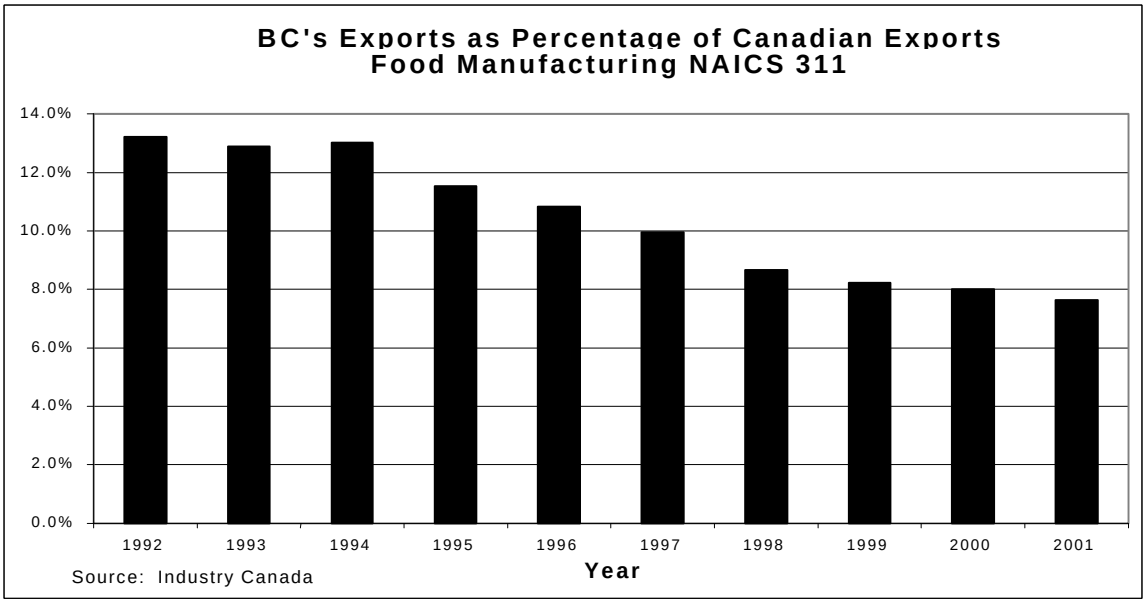


Figure 3.6

Figures 3.7 and 3.8 contain value added per employee in BC and Canada in these industries. The first shows that BC's value added per employee, a measure of productivity and a proxy for profitability, increased. But comparing it to Figure 3.8 shows that BC's manufacturing labour productivity has consistently been lower than Canada's. Moreover, Canada's consistently lags that of the US[8].

Figure 3.7

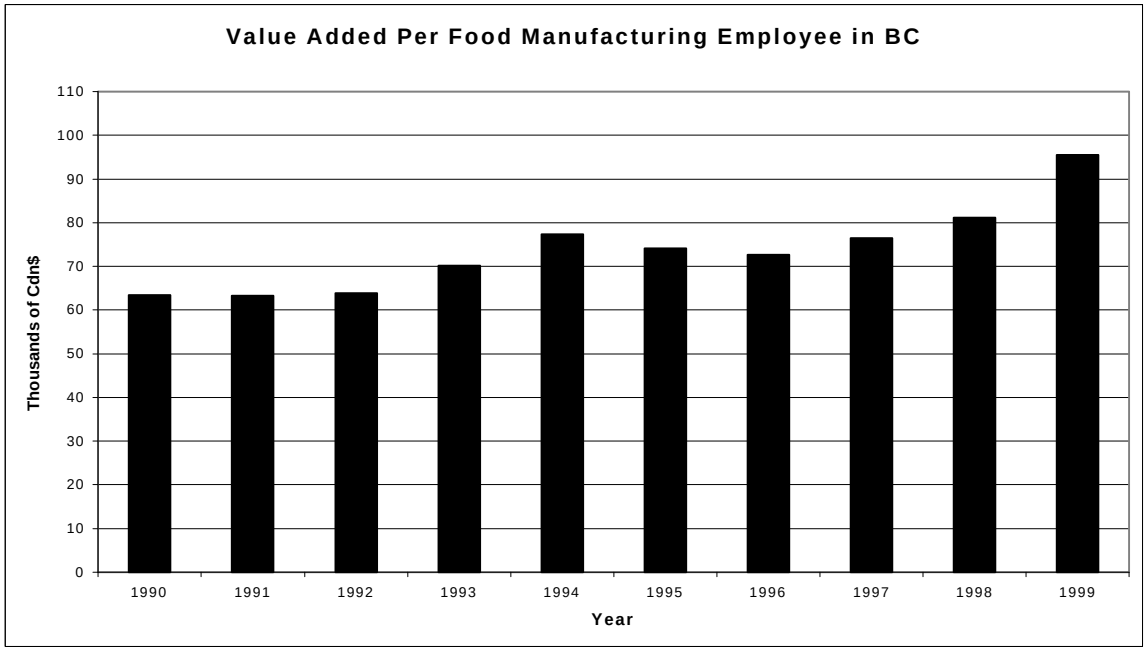
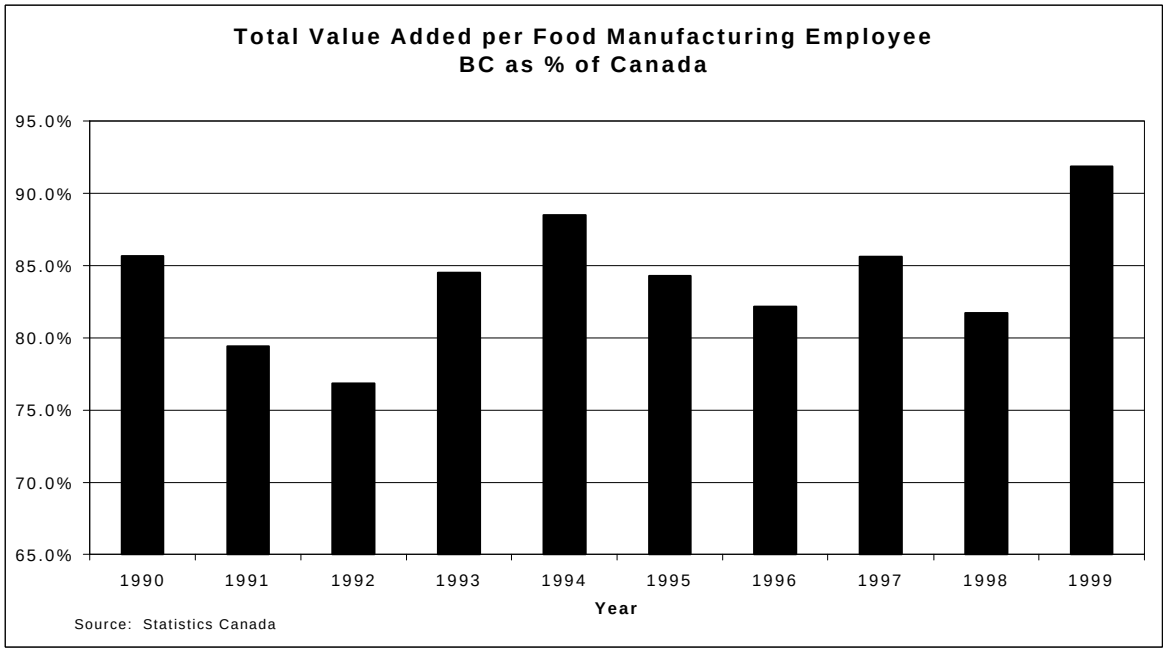


Figure 3.8



[8] See reference in Footnote 1.

It would appear that BC has lost competitiveness in food manufacturing. However, since the Figures show all food manufacturing for BC, certain sub-categories would likely have performed better and others performed worse than the overall results. This overall drop in competitiveness is the result of several factors, including the provincial regulatory and business climate relative to other areas of the country over the time period shown.

The remaining figures are confined to market shares, and they are reported in two ways. First, we show British Columbia's production as a share of national production. The second set of graphs for each commodity provides an estimate over time of BC's production of a commodity as a share of its consumption. Data are not available in Canada on per capita consumption by province. Therefore, total provincial consumption is estimated by simply allocating national per capita consumption to British Columbia on the basis of its population. Given our expectations about provincial consumption patterns, this procedure likely underestimates per capita consumption of many of these products (especially vegetables and poultry) in the province. However, the method we use is consistent across time, and does not affect the major inferences.

Figures 3.9 and 3.10 show the data for mushrooms. The Figures show first that BC's production has hovered around 30% of the national total, with a small increase in the most recent years. Second, BC's production rose as a percentage of estimated consumption, although it tailed off in the last two years of the data series. Since the ratio is around 300%, this is an indication that mushrooms are being sold outside of BC. While we have no data on profitability or productivity for this industry in BC, one can't state conclusively that it has a high degree of competitiveness. But the fact that its market share held and even increased a bit over time, and the fact that it produces roughly three times domestic consumption all lend credence to the conclusion that it has a high degree of competitiveness.

Figure 3.9

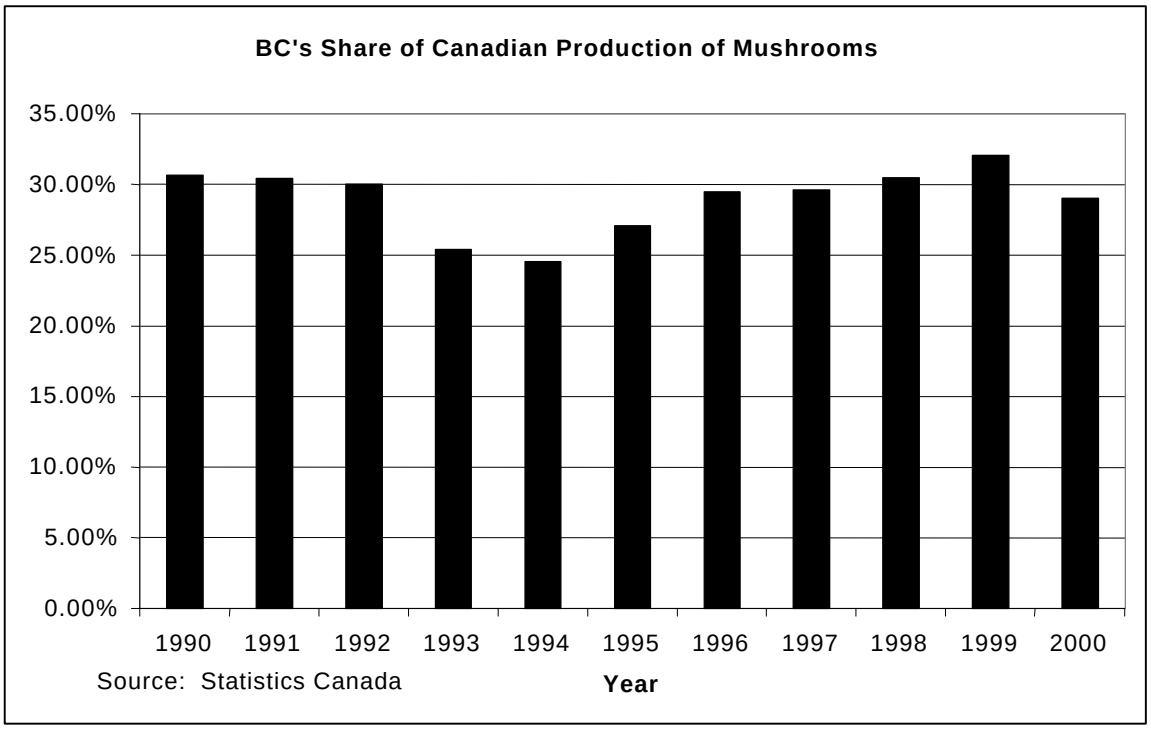
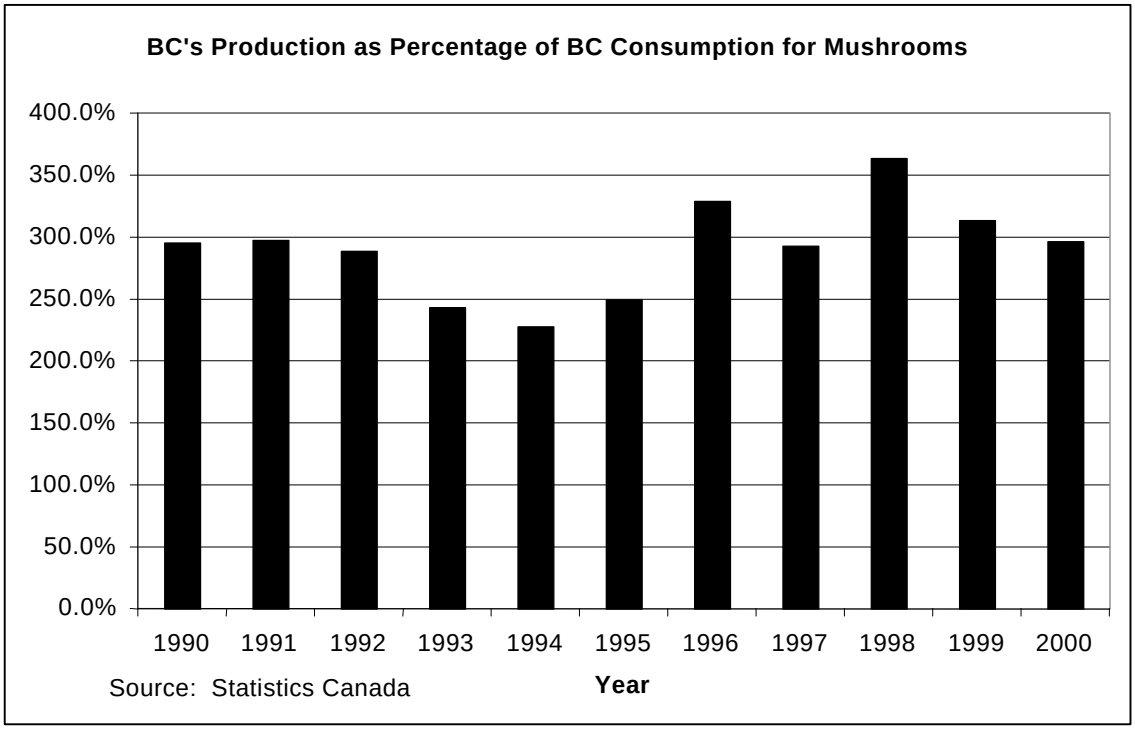


Figure 3.10



Figures 3.11 - 3.18 contain the data for potatoes, cucumbers, onions, and tomatoes. In all cases except tomatoes, BC's share of national production and of consumption in the province have fallen over time. In the case of potatoes, the last two years have seen some recovery. The most dramatic change has been in tomatoes, as provincial production has grown to exceed provincial consumption by 20% over the last two years.

In all other cases, production in BC is less than half of provincial consumption. Hence it is clear that the province is a large and growing net importer of these products. Again, we do not have data on relative profitability or productivity in these industries. But on the surface, it would appear that tomatoes are gaining competitiveness and rest are losing competitiveness.

Figure 3.11

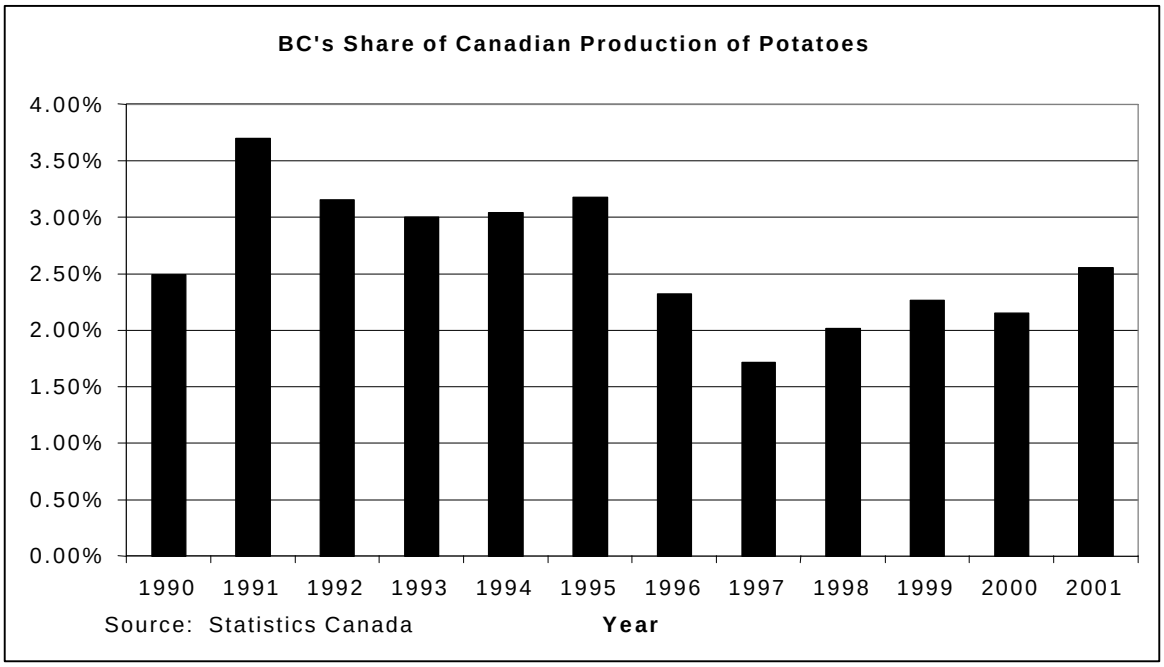
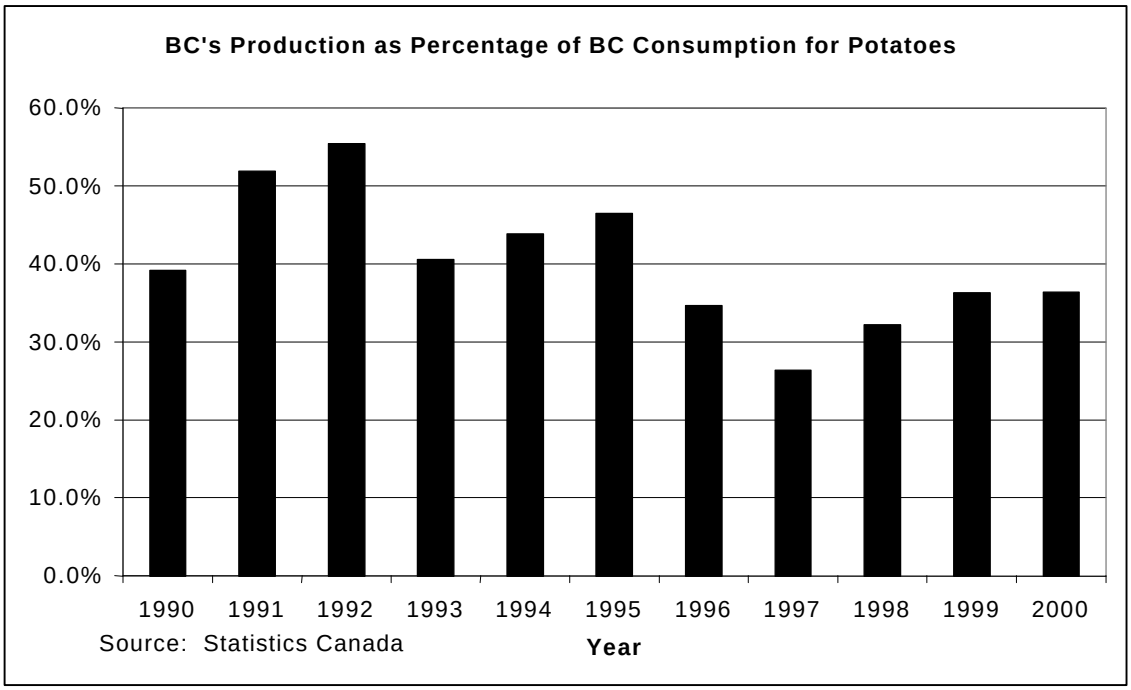


Figure 3.12



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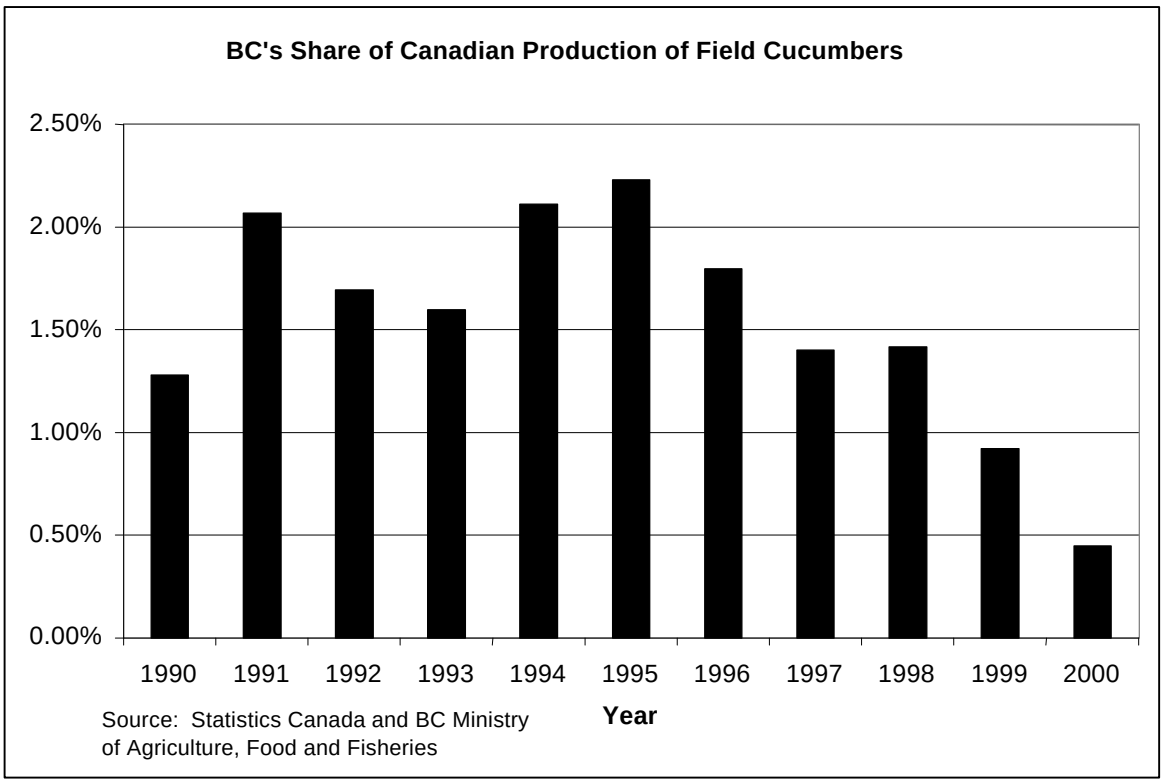

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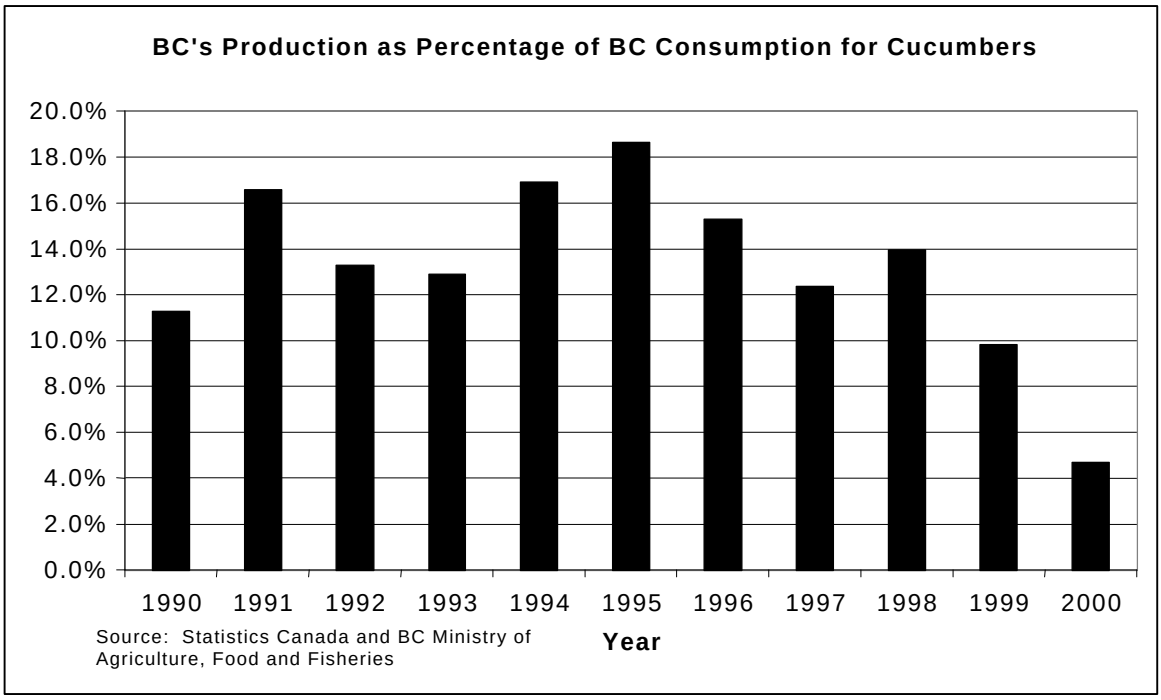

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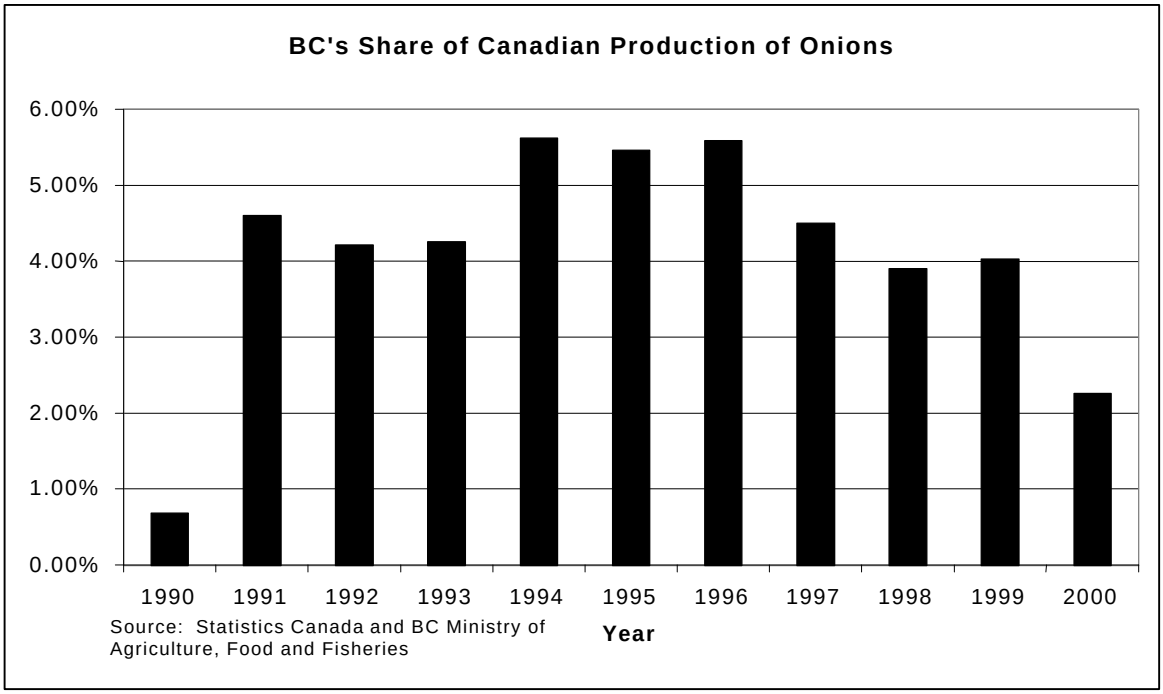

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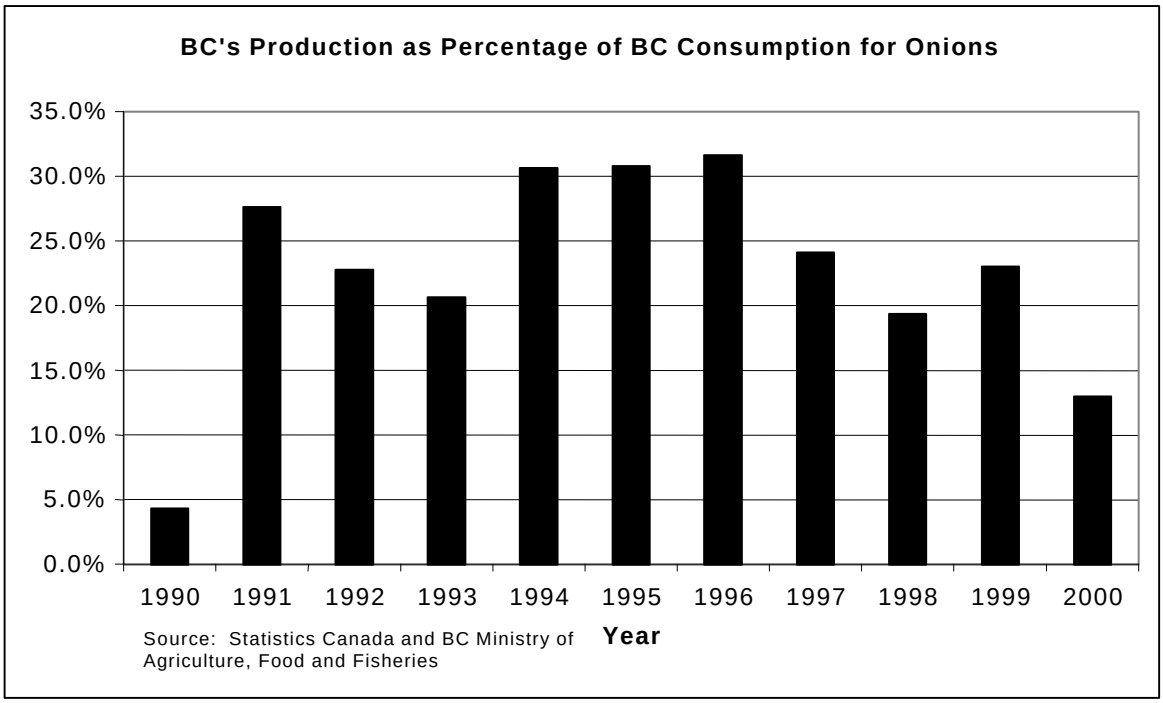

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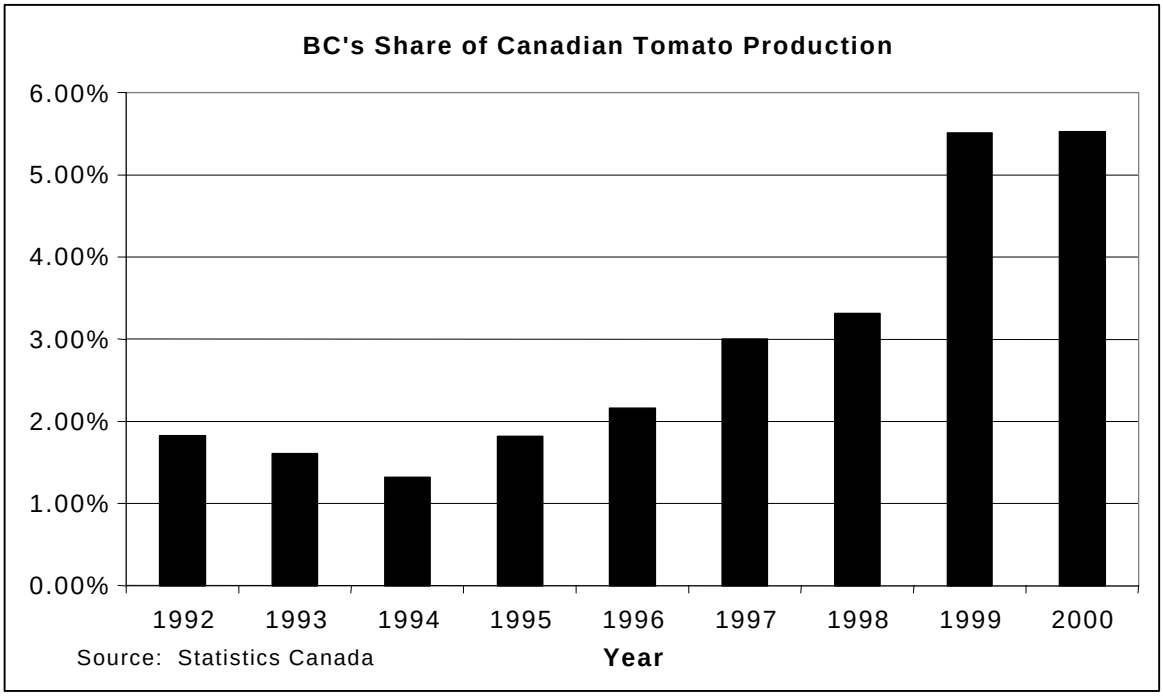

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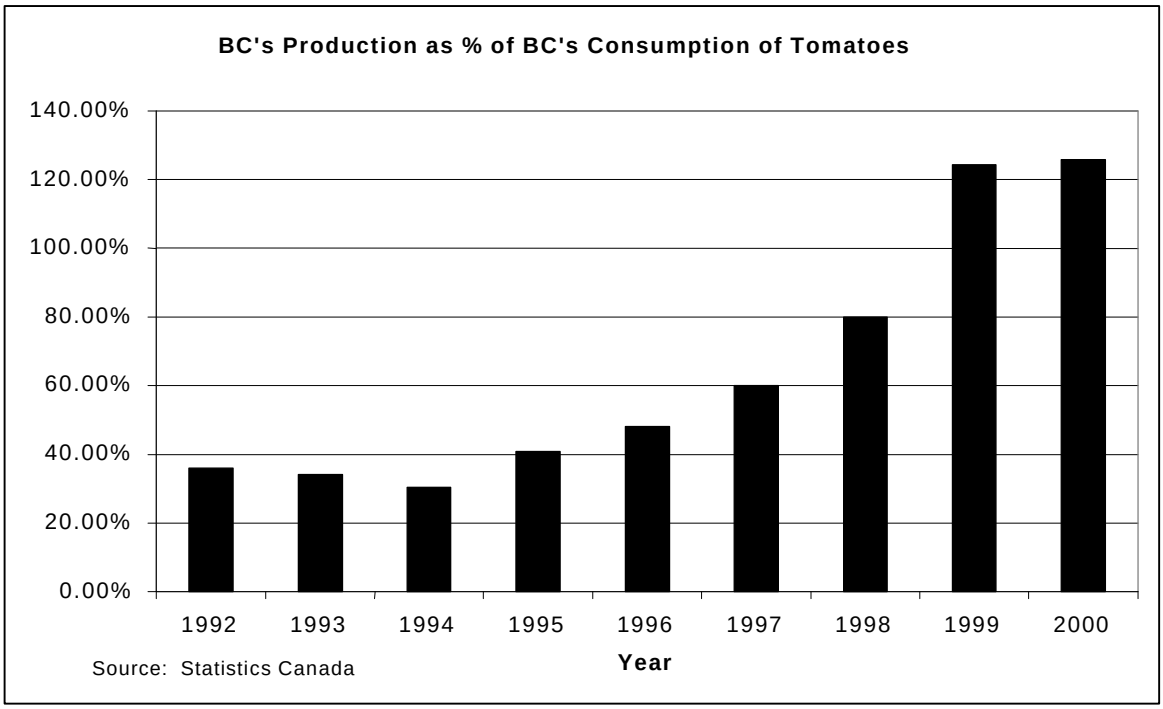
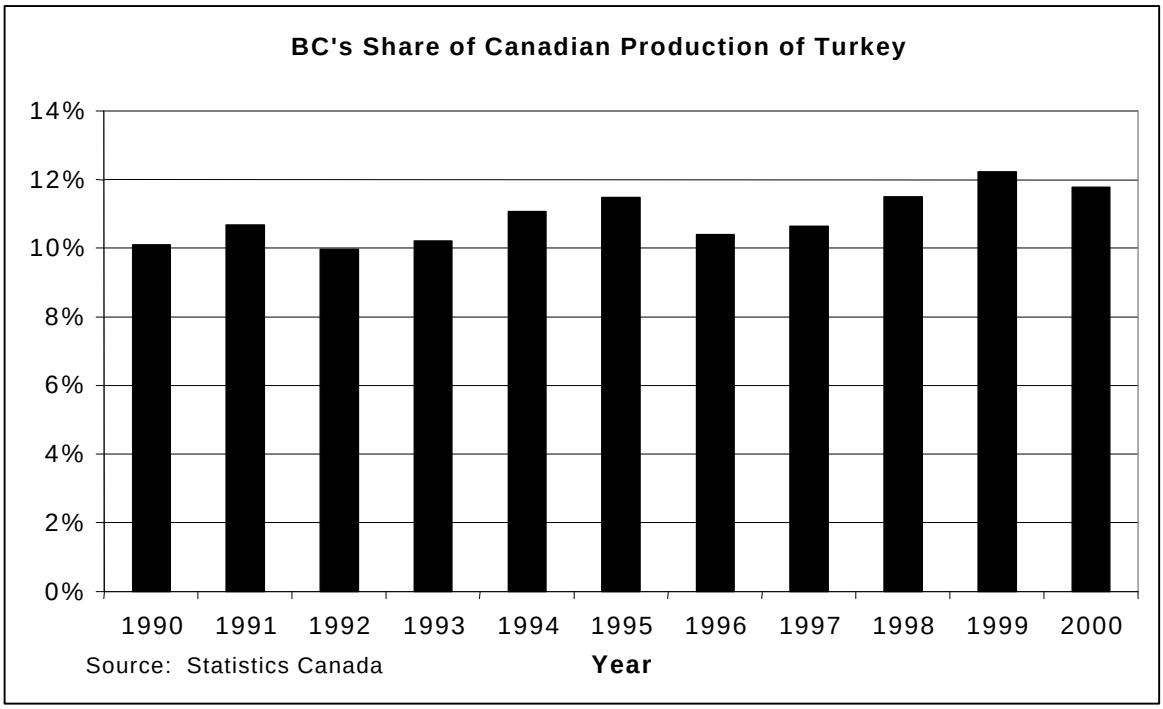


Figures 3.19 – 3.24 contain the data for turkey, chicken, and eggs. They show that British Columbia's share of national production, and of provincial consumption increased for turkey and chicken, but declined for eggs. These data likely reveal much less about BC's competitiveness than they do about the allocation decisions of the national marketing boards, and the success that BC has had in its strategy for obtaining additional production quota. Quota was originally allocated to provinces based on historic production patterns in the 1960's and 1970's. Because of the regulations of national agencies, production adjustments cannot occur across provincial boundaries, except through the decisions of national agencies to reallocate quota, or to allocate new quota on a differential basis. Most of the small amount of inter-provincial adjustment that occurs does so through the second route. Clearly, this has benefited BC.

Eggs are a different story because national and provincial agencies only regulate the table market. Growth has occurred in the "breaker" or processing market for eggs. Most of the growth has been in the Prairies or Central Canada, largely because of cost advantages. Hence, the data for BC on eggs likely does reflect a decline in relative competitiveness in the breaker market.

Figure 3.19



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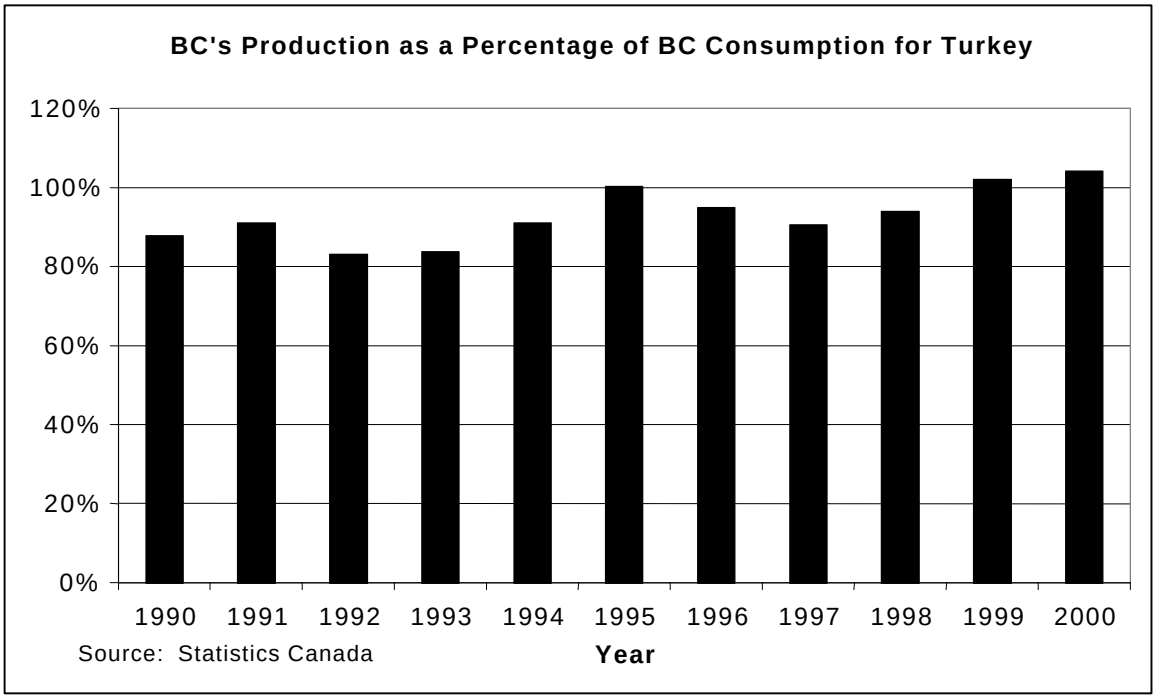

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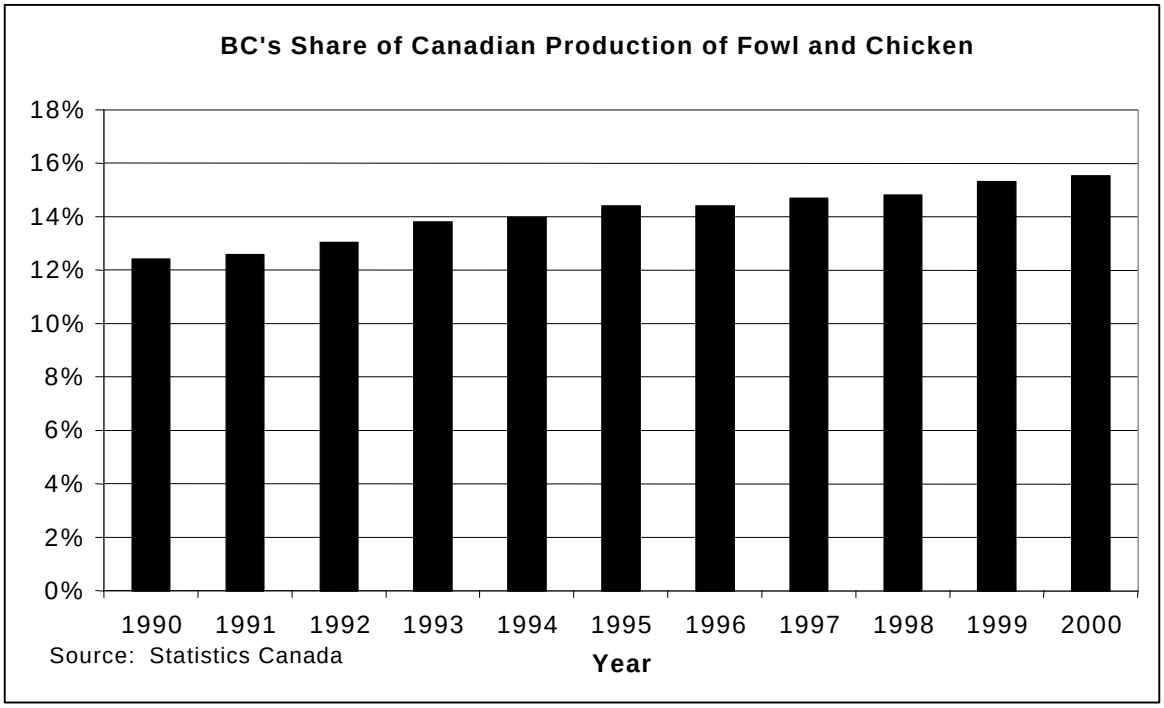

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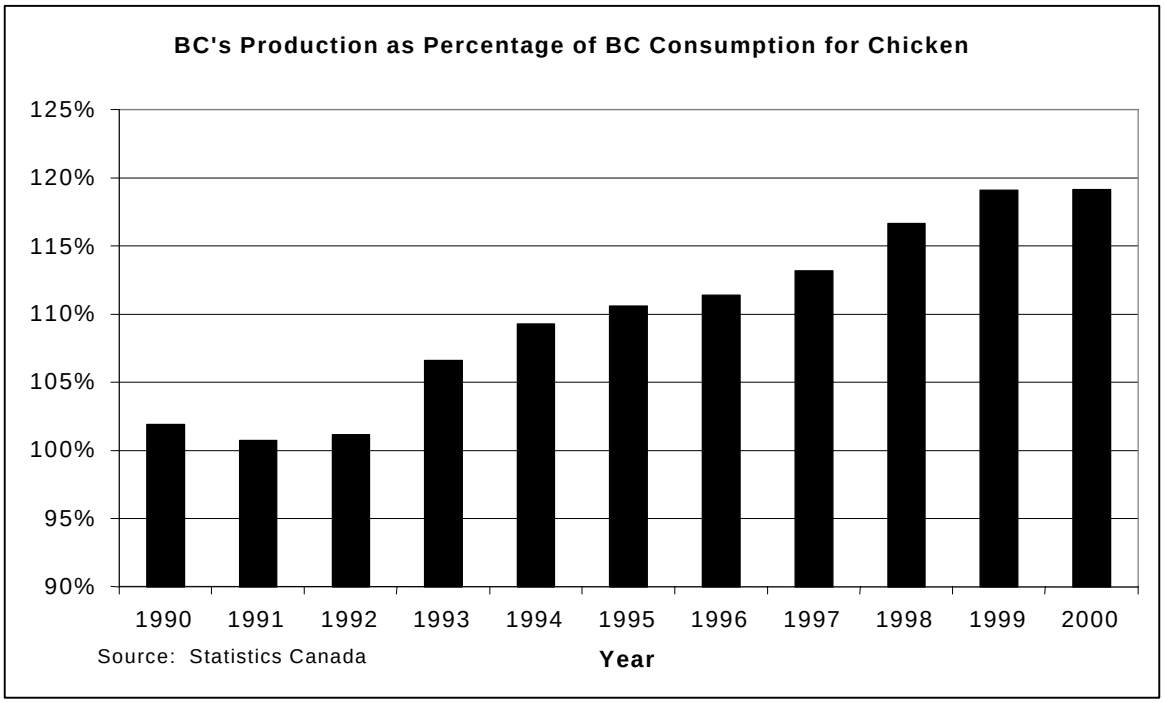


Figure 2.23

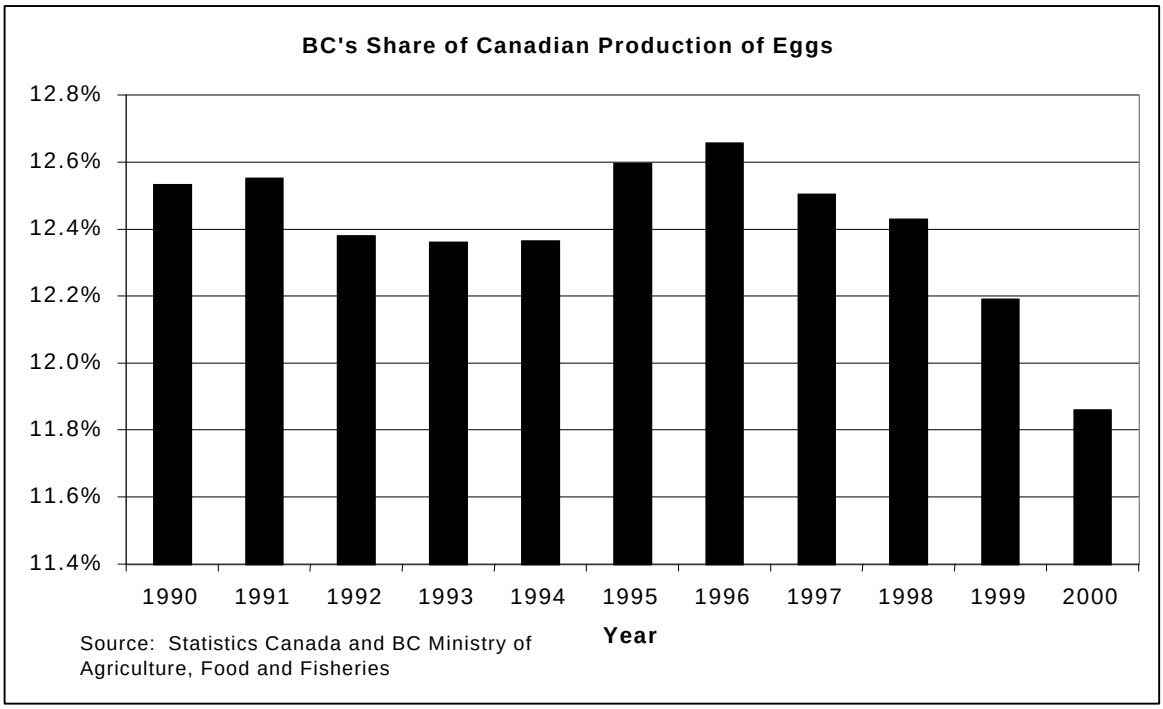
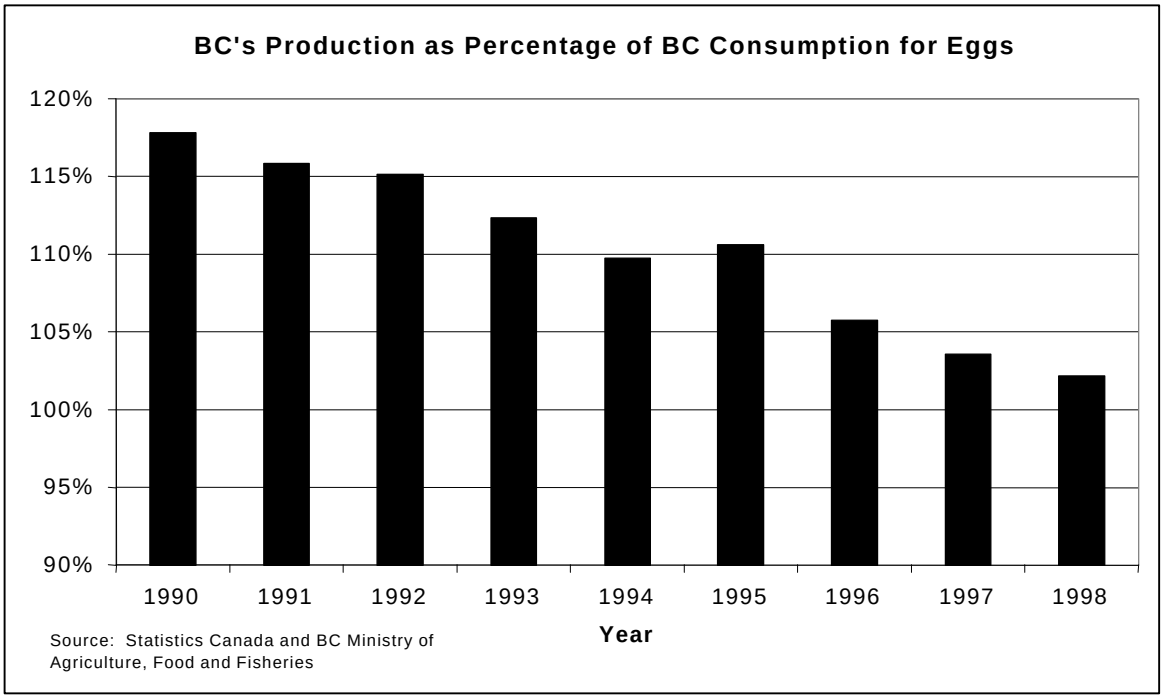


Figure 2.24



3.2.4 Summary

This section describes the notion of competitiveness, some thoughts on measurement, a brief discussion about the relationship between regulation and competitiveness, and presents some tentative evidence on British Columbia's relative competitiveness in a number of areas. The data suggest that BC has lost competitiveness in food manufacturing, gained in mushroom and tomato production, lost it in onions, potatoes, cucumbers and eggs, and gained national quota allocation for chicken and turkey.

3.3 MARKET SEGMENTATION

The purpose of this section is to examine the scale and scope of "market segmentation" in the Canadian food industry and what it might mean to the BC regulated marketing system. In order to do that, this section seeks to define what is meant by the term "market segmentation" and then to analyze its form and substance. From that point an examination of the implications for the food industry and BC's regulated marketing industry will be made.

Market segmentation is defined as "The process of dividing the total market for a product into several parts, each of which tends to be homogenous in all significant aspects."[9] Market segmentation is closely tied to niche marketing and differentiation (see above). Differentiation is a strategy of providing specific products that respond to the demand characteristics of the alternative market segments.[10] As indicated in the previous section, niche markets, differentiation and segmentation are often discussed together and sometimes interchangeably. For the purposes of this report, however, the phrase "market segmentation" is the process of understanding the several parts of the market, and differentiation is the process of responding to the needs of the various parts.

Market differentiation is a common marketing strategy. It is usually attempted in order to select one or more segments as the firm's target market. Separate marketing tactics are developed for each segment or group of segments in the target market. By employing a strategy of market segmentation, a firm can more closely match specific market demands.

The first step in that regard is to identify the needs of customers within a sub-market (segment). The definition of a market segment is:

> *An identifiable group of customers with requirements in common that are, or may become, significant in determining a separate product strategy*.[11]

The typical or common ways in which markets are segmented include the following:

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[9] *Fundamentals of Marketing*, by Sommers, Barnes, Stanton; McGraw-Hill Ryerson Limited, 1992.
[10] *Competitive Strategy*, by Porter; The Free Press, 1980.
[11] *Note on Market Definition and Segmentation*, by Buzzell; Harvard Business School Publishing, 1978.

1. Geographic
2. Demographic
3. Psycho-graphic or lifestyle
4. Attitudes towards the product and brand loyalty

Other ways of segmenting include points such as: price sensitivity; volume of purchases (heavy vs. light); and how the product is used.

Consumer and industrial marketers have employed market differentiation for generations. One often-used example is General Motors' early identification of different market segments for automobiles and its development of different cars for those segments. Another example is the variety of toothpastes designed to appeal to all segments from children through seniors.

3.3.1 Segmentation in the Canadian Food Industry

As noted in the section above, market segmentation is a basic, or fundamental starting point for most marketers and marketing strategies. Within the food industry, market differentiation is becoming the most important marketing strategy for both manufacturers and distributors. There are two key reasons behind the increased drive towards market segmentation in the Canadian food industry:

1. The changing make-up of the population and;

2. The desire for food companies to enhance their profits, and the technical ability to design and deliver differentiated products.

In other words, the increased drive towards market segmentation comes from both the supply side and the demand side of the industry.

3.3 2 Demographic and Demand-Side Segmentation

The following are some examples of the key population drivers of market segmentation as well as references to how British Columbia relates to the rest of Canada.

1. Immigration/Ethnicity

According to the latest census, the main component of growth in the urban centres of Vancouver, Abbotsford and Chiliwack on the mainland, and Victoria, Duncan, Nanaimo and Parksville on Vancouver Island, is international immigration. More than 180,000 immigrants settled in the census metropolitan area of Vancouver from 1996 to 2001, a rate of 18 new immigrants a year for every 1,000 population, similar to the rate in Toronto. Hence there is a growing demand for products similar to those in the "old country". At the same time, the changing ethnic mix means that people are willing to try cross-cultural products. For example, fusion cooking is one of the most important aspects of Canadian cuisine.

2. Aging Population

Canada's population is becoming older. Within that context it is noted that British Columbia has an above average share of its population in the 65 and over bracket. BC's share of population 65 and older is 13.2% while the Canadian average is 12.6%.

3. Incomes

Vancouver and Victoria have among the highest average family incomes in Canada, while British Columbia as a whole has the second highest provincial average family income in Canada, just behind Ontario. At the same time, according to Statistics Canada, from 1990 to 1995, British Columbia had an above average rate of growth of the below average income status. Hence, the markets at various points of the income spectrum are growing.

4. Food Expenditures

British Columbia is far above the Canadian average with regard to the weekly dollar amount of food expenditures per household. This means that the BC market offers the opportunity for suppliers to offer a wide range of product alternatives.

5. Households

The number of people per household continues to get smaller and smaller. For its part, British Columbia has one of the highest rates of single person occupancy in Canada. The growing dispersion of household size means, for example, the demand for alternative package sizes widens. Similarly, household size has very serious implications for the "home meal replacement" market segment.

The purpose of listing some of the demographic drivers is simply to provide examples of segmentation and how it is increasing across many measures in Canada. It is also of interest to note, however, that British Columbia is showing an even greater tendency towards segmentation than the rest of Canada.

3.3.3 Food Industry Response

There are four basic ways in which the food industry has responded or sought to meet the demands of the continuing segmentation of the market. They are focused on four basic strategies:

1. Convenience
2. High and low margin products
3. Food safety and health
4. Ethnic variety

Each of these four strategies is designed to meet the increasingly diverse needs of the increasingly segmented market. Furthermore, each of these four strategies are exceptionally high growth segments within the food industry.

The following are brief overviews and examples of the four main food industry strategies designed to capitalize on the emerging market segmentation.

1. Convenience

- Foodservice sales in Canada have outpaced food purchased from stores for the past three years.
- Sales of convenience-oriented foods such as frozen boxed dinners, pre-packaged bagged salad, and home meal replacement are the fastest growing sections of the Canadian grocery industry.
- Sales of products that require greater preparation time and knowledge are declining.

2. High and Low Margin Products

- Warehouse clubs, deep discounter stores and limited assortment stores that cater to price conscious consumers have taken share and sales away from traditional supermarkets.
- High end coffee shops, bottled water, "gourmet" sauces, and extra-ordinary dessert lines are just a few examples of higher priced products designed to appeal to consumers with greater disposable incomes.

3. Food Safety and Health

- There has been growth in organics and natural foods shelf space in traditional supermarkets and an increase in new store formats designed to appeal to consumer demand for organics and natural foods.
- Canadian organic retail sales growth is expected to rise from $0.7 billion in 1997 to $3.1 billion in 2005, which equates to an average growth rate of 20 per cent annually. The industry's market share will increase from one per cent to 10 per cent of the Canadian retail market by 2010[12].

4. Ethnic Foods

- Every supermarket in Canada now has categories and departments dedicated to ethnic foods. These food lines are among the strongest selling items in the stores. For example, in Canada over the last year, Mexican dinner kits and tortilla shells have seen sales increases of more than 20%.
- Product lines such as salsa, pita bread and feta cheese are becoming mainstream and are no longer considered "ethnic foods."
- Even mainstream product categories such as salad dressings and bread are adding ethnic flavors.

The consumer market is more segmented than ever before for a wide variety of well-documented reasons. The food industry in turn has responded with a wide array of new products and categories. In addition, food manufacturers, distributors and foodservice suppliers are seeking to differentiate themselves by seeking guarantees on issues such as food safety, environmental stewardship and animal welfare. This process is sometimes referred to as Identity Preservation.

[12] Canada Organic Products, *Organic Food Industry Report 2002*, USDA..

Certain products and categories that are successfully responding to the new consumer segments are seeing sales soar. Those products that are not responding are seeing sales stagnate. Segmentation and differentiation are the main drivers of industry success. These drivers will continue to determine success or failure in the industry for the foreseeable future.

3.3.4 Implications for Regulated Marketing

Food manufacturers, retailers, foodservice providers and consumers are increasingly demanding products that can be differentiated to meet the needs of a growing variety of market segments. In addition, they want proof and guarantees of this differentiation (Identity Preservation). Whether the differentiation takes the form of quality, safety, environmental stewardship or animal husbandry the opportunities for those that respond are great. The risks for those that do not respond are equally great.

All of agriculture, including the regulated marketing sectors, is going to be asked to help the food industry respond to market segmentation. Regulated marketing and agriculture in general are coming to the realization that low cost commodity agriculture is not sufficient for long-term viability. Those regulated marketing systems that can only provide a common denominator commodity are going to continually lose share to those alternative suppliers that can differentiate themselves as required by the market.

3.4 INDUSTRY CONCENTRATION

The purpose of this section is to examine the scale and scope of "market concentration" in the Canadian food industry and what it might mean to the BC regulated marketing system. To accomplish this, we will first define what is meant by the term "market concentration" and then analyze its form and substance. Following this, an examination of the implications for the food industry and BC's regulated marketing industry will be made.

Concentration is a process whereby fewer and fewer firms attain greater sales and market share within a particular sector or industry. For the purposes of this report, "market concentration" will be defined as a process of mergers, acquisitions and the exit of firms from an industry. This is also often referred to as rationalization and consolidation among firms in the food manufacturing and distribution sectors.

3.4.1 Factors of Concentration[13]

Economists employ a number of techniques for analyzing the effects of concentration (the likely result of mergers) on the performance of markets. All of them involve investigations of some combination of the following three factors:

[13] *Meatpacking Merger Issues and Impacts: The IBP Purchase Background Paper*, February 2001, Clement Ward, Oklahoma State University, Steve Meyer, National Pork Producers Council, Azzeddine Azzam, University of Nebraska.

Structure
Number, size and location of plants and firms; market share of leading firms; presence of economies of size and scope; barriers to entry; and size of cumulative market shares of top few firms (i.e. concentration).

Conduct (also called behaviour)
Pricing policies and practices; product strategies; research and development; legal tactics.

Performance
Technical and operational efficiency; pricing efficiency; technological progress; profitability; product and service innovation; customer satisfaction.

3.4.2 Canadian Food Industry Concentration

Merger and Acquisition Activity
The North American food industry underwent a new wave of consolidation and rationalization during the late 1990's. For reference, the following is a partial listing of mergers and acquisitions in the grocery distribution sector in 1998:

- Empire Co., of Stellarton, Nova Scotia, purchased Oshawa Group with an offer of almost $1.5 billion. Empire owns the Atlantic Canada-based Sobey chain of grocery stores as well as the Lumsden Brothers distribution division in Ontario. Oshawa Group owns or distributes to grocery stores across Canada largely under the IGA banner. Combined sales of Sobey and Oshawa initially amounted to approximately $10 billion. Sobey said that the purchase was based on its desire to expand out of Atlantic Canada and its expectations that the industry will consolidate.
- Loblaw Cos. of Toronto bought Provigo Inc. of Montreal in a $1.62 billion deal. Provigo's sales were around $6 billion per year. Loblaw's sales were roughly $11 billion. Loblaw said it was trying to become a national retailer, but had just seven stores in Quebec.
- Safeway Inc., based in Oakland, California, agreed to buy Dominicks Supermarkets, Inc., of Chicago, for $1.2 billion. Dominicks was Safeway's third acquisition in the past year.
- Kroger Co. of Cincinnati, announced its expected $7.36 billion purchase of Fred Meyer. The acquisition made Kroger the second largest retailer in the US, with sales of $43 billion. Wal-Mart Stores of Bentonville, Arkansas is the largest retailer.
- Albertson's Inc. announced an $8.4 billion acquisition of American Stores.

There were essentially two reasons for these mergers and acquisitions:
1. In order to remain competitive, grocers were seeking additional economies of size.
2. Wal-Mart's growth in groceries in the US and concern about its potential expansion into the Canadian grocery market.

Food manufacturers also engaged in significant mergers and acquisitions during 2000. These included:

- Unilever purchased Bestfoods
- Tyson Foods purchased IBP
- ConAgra purchased International Home Foods
- Phillip Morris purchased Nabisco

Reasons for these purchases include the following:

- Slow growth food companies once could boost results and please investors with a mix of cost savings, divestitures and price increases. Those options are largely tapped out.
- Some well-managed food companies have come to realize that powerful, global alliances may be the only way to ensure their products can achieve sustainable growth.
- Investors see that acquisitions are the best way for companies to reinvigorate themselves, to get better top and bottom line growth.
- As the retail trade has consolidated, food companies have been hard pressed to exercise leverage against the likes of a Wal-Mart or Kroger. Now the consolidated manufacturing firms have increased leverage.

3.4.3 Impact of Concentration

Fundamentally, the key issues or concerns usually associated with concentration in an industry are the following:

- Do the firms in a concentrated industry exert their market power in the form of lower prices for the products that they purchase or higher prices for the products that they sell? Do they exert their power in ways that provide unequal market access to individual producers? These impacts are generally regarded as negative outcomes, at least for the consumers and suppliers of those products.
- The converse or alternative argument relates to the economies of scale and increased efficiencies that concentrated firms typically enjoy. The resulting lower costs could in turn lead to higher prices for suppliers and lower prices for consumers than would have been the case if the industry did not attain economies of scale.
- Another related point is the concept of the relevant market. That is, an industry might be regarded as concentrated because there are only two buyers in a province. The question then is whether or not that province is the sole market for the products or is that province a small part of a much larger North American or world market.

In two separate evaluations of such tradeoffs in the beef packing industry (Azzam and Schroeter; Azzam[14]), it was found that the cost savings from increased concentration, induced largely by mergers and acquisitions, more than offset the losses to cattle producers. But there were still losses. The question is how to pass the full cost savings

[14] Azzam, A.M. and J.R. Schroeter. "The Tradeoff Between Oligopsony Power and Cost Efficiency in Horizontal Consolidation: An Example from Beef Packing." American Journal of Agricultural Economics. 77(1995):825-36. As cited by Ward and Meyer in Footnote 12.

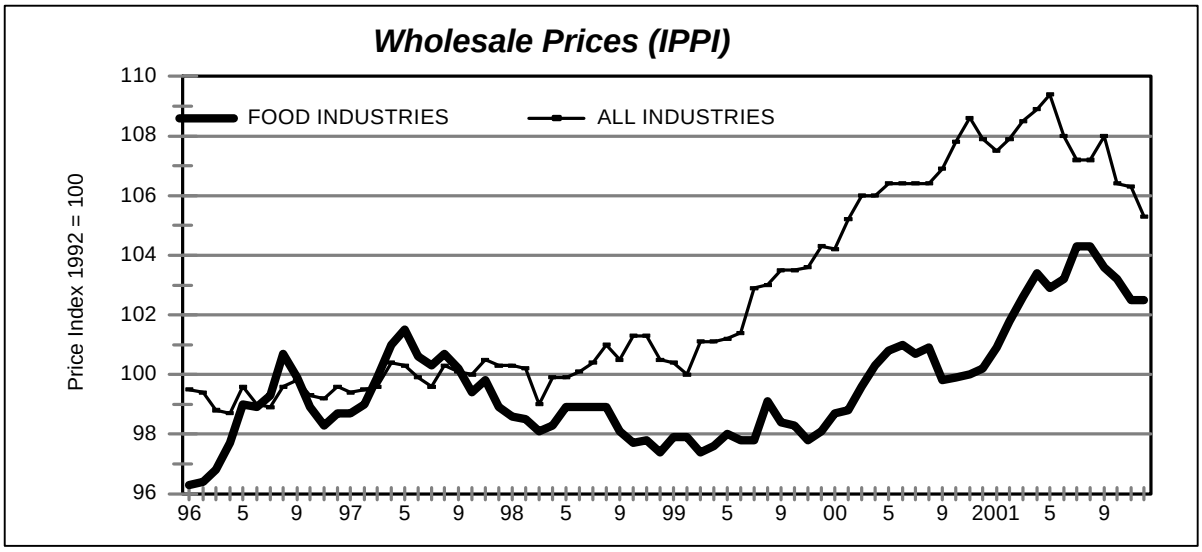
to producers. Ongoing research suggests certain institutional arrangements, such as alliances and contractual arrangements, may help capture the savings for producers.

A more recent study looked at the effect of concentration on cost efficiency and market power in 31 food industries (Lopez, Azzam, and Liron-Espana)[15]. Only eight of 31 industries (26%) showed an upward price impact from increases in concentration. Of those eight, five had statistically insignificant price effects at the 5 percent level. Thus, in general the results showed that the positive cost-efficiency effects tend to dominate the negative market-power effects. Among the meat packing, sausage and prepared meats, and poultry and egg processing industries, only the poultry and egg processing industry does not show any significant effect on consumer prices. This despite an increase in concentration of 228 percent during the ten-year period used for the analysis.

3.4.4 Canadian Experience

As noted, in Canada, the key question is typically whether concentrated retailers have exerted their market power in a negative manner. That is, are supplier prices lower and consumer prices higher as a result of concentration. Figure 3.25 shows the Industrial Product Price Index (IPPI) for food and all manufactured items in Canada. The IPPI is the wholesale price level between manufacturers and retailers.

Figure 3.25



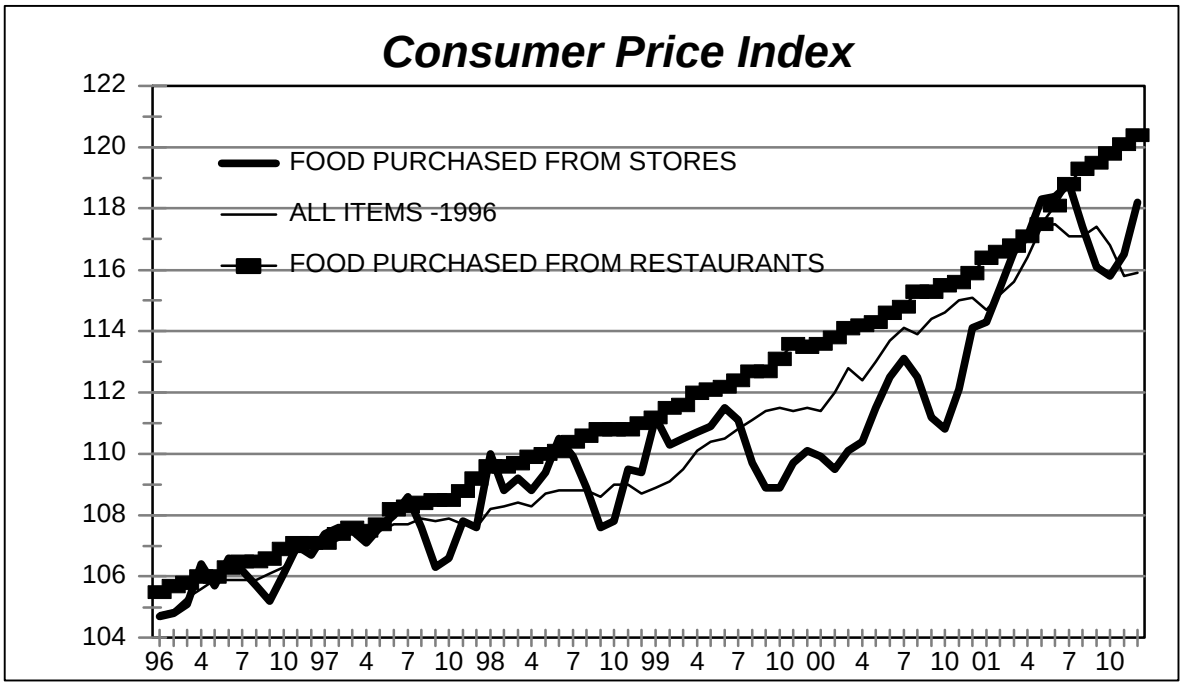
The graph shows that since 1998, the food IPPI has lagged the overall IPPI. This might lead to the conclusion that the grocery retail mergers of the late 1990's have had a negative impact on the food manufacturing sector with regard to prices they receive.

[15] Lopez, R., A. Azzam, and C. Liron-Espana. "Oligopoly Power and Cost Effects of Industrial Concentration in U.S. Food Processing." (in editorial process, 2000). As cited by Ward and Meyer in Footnote 12.

However, it has only been since the late 1990's that there has been any significant movement higher of those same prices.

The issue of retail food prices is often a concern. The consumer price index can be used to track changes in prices of food purchased from stores in relation to all items and food purchased from restaurants. The relevant CPIs are shown in Figure 3.26 for the time period 1996 through 2001. The graph shows that since 1998, the prices of food purchased from stores have, for the most part, fallen behind the price increases for all items, and certainly well below the prices of food purchased from restaurants. This indicates that greater concentration at the retail grocery level has not had a negative impact on consumer prices.

Figure 3.26



In particular reference to British Columbia, the province has been experiencing similar overall trends as the rest of Canada with regard to grocer concentration. That is, the number of chain owned stores is increasing and the number of unaffiliated or independents has been decreasing.[16] This however, does not imply that there is a lack of competition in BC. The province is home to dynamic and strong grocers such as Overwaitea and Thrifty. In addition, the Sobey purchase of H.Y. Louie has provided that firm with additional resources and competitive market access. Loblaw's Westfair division has also significantly increased its presence in British Columbia. In fact, during the last three years, western Canada and BC have been the most competitive markets in Canada with regard to price.

[16] Canadian Grocery "Who's Who 1998-1999 and 2000-2001

BC grocers have of course not been isolated from the ongoing consolidation-taking place in the manufacturing sector. Manufacturing consolidation means that BC grocers are procuring products from fewer and fewer manufacturers, often with head offices in other countries or Toronto. In every segment or category, BC grocers are seeing supplier lists thinned due to mergers in the manufacturing sector.

3.4.5 Summary and Conclusions

Concentration in the Canadian food industry has unquestionably resulted in fewer domestic buyers for both raw agricultural products and manufactured food products. In addition, British Columbia has been uniquely impacted as more buyer head offices in the manufacturing and distribution sectors have centralized outside of the province. On the surface, the fact that there are fewer buyers means that producers have less bargaining leverage and hence greater potential to endure lower prices. Alternatively, the fact that there are fewer firms means that the surviving firms are likely larger and more cost efficient. At the very least the fact that there are fewer firms in a market is simple testimony to the natural evolution of the firms in the market. In addition, with more open borders around the world, it cannot be stated that fewer firms in BC or Canada necessarily means fewer buyers for producers in the province.

There is a great deal of academic research regarding the impacts of concentration on the producer sector. At the very least, this research returns mixed results as to whether concentration is a positive or negative for producers. One point that can be agreed upon is that there are fewer, more powerful buyers for BC agricultural products. Whether this is an opportunity to sell more products to larger buyers or a threat as a result of negative leverage being enacted, is a topic beyond the scope of this research.

3.4.6 Implications for Regulated Marketing

One of the original arguments in favor of regulated marketing was that since there are many sellers and few buyers, that there was a need for countervailing balance in the market. This countervailing balance was the regulatory power granted to producers in the form of marketing boards. The fact that there are fewer, more powerful buyers today than 30 years ago appears to be a compelling argument in favor of continued regulations to protect producers from these firms.

However, powerful buyers do not need to purchase product from British Columbia. Fresh and processed food products can be procured from the United States and around the world and sold to British Columbia consumers. This means that the theory of countervailing market power of marketing boards, particularly in the non-supply managed commodities, is largely irrelevant. The concentration of buyers is just as much of a threat or opportunity to producers within regulated marketing as it is to producers of non-regulated products. Whether the product is part of a regulated marketing scheme or plan is immaterial as a first or second factor in the buyer's purchase decision. It is most important to buyers that the product be competitively priced and possess competitive quality characteristics.

The key challenge for BC's regulated marketing system is to become valuable suppliers to both large and smaller scale buyers. The value will come in the form of producing a highly defined, differentiated product that is demanded by buyers and consumers in BC, Canada and the world.

As a final point in this regard, there has been a great deal of discussion in the industry and the trade journals regarding the fact that the larger multinationals are gaining at the expense of the smaller Canadian firms. What is not noted, however, is that the growth of private label products in Canada has resulted in excellent production and manufacturing opportunities for smaller Canadian firms.[17] Loblaw in particular, but also Overwaitea and others in BC, have built stronger relationships with smaller Canadian firms in order to build their competitive opportunities.

While this discussion overlaps with the "Market Segmentation" thrust of this report, it should be noted that concentration leads to the opportunities of larger market access for BC production and a greater need for concentrated grocers to differentiate their offerings.

3.5 SUPPLY MANAGEMENT ISSUES AND CHALLENGES

The supply managed sectors comprise over 60% of the farm gate income from all of the regulated marketing sectors in BC. By their very natures, the supply managed commodities are the most highly regulated, involving the greatest amount of oversight, management and national coordination. In addition because of the issue of quota values, and the amount of power and authority exercised by the supply managed commodities' marketing boards, these sectors are often the most controversial of all the regulated marketing sectors.

The purpose of this section is to examine some of the specific supply managed issues, markets and challenges facing the industry today.

3.5.1 Production and Marketing Quota

Quota values result from relatively high, stable prices for supply managed commodities and the nature of production costs. Farm prices of supply-managed commodities tend to be set by pricing formulas, which relate production costs to output prices. In other cases, prices result from negotiation/arbitration processes between producers and processors. In either case, farm prices tend to remain robustly stable and high relative to both production costs and prices in competing nations. Therefore, the system produces known and stable profits. When new people buy into the industry, they know this and bid the profits into the quota value.

[17] Canadian Grocer, May 2002

The following is a listing of the key aspects of the outlook for quota values:

3.5.1.1 Domestic Factors

Changes in product prices. For a given level of production cost, an increase in the price received by farmers increases farm profitability.
Changes in production cost and efficiency. For a given level of price, if input prices decrease or the efficiency in which inputs are used increases, quota values will increase.
Changes in Aggregate Quota Level. If more quota is issued, and if the additional volume does not depress the product price (and supply management authorities rarely increase the of amount quota if it would decrease the product price), it has the effect of increasing the amount produced. If this shift takes farms into a range of increasing average costs, the quota value will fall; if the shift takes farms into a range of decreasing costs, quota values will tend to increase or be unaffected.
Changes in Demand structure. If product demands change (eg. an increase in demand for cheese) in such a way that pool revenue increases, prices will increase, thus increasing quota values.
Changes in marketing structure. Changes in the marketing system impact pool revenues and, therefore, the prices received by farmers. For example, changes in interprovincial pooling arrangements influence the revenue available to finance producer prices in each province

3.5.1.2 International Trade Policy Factors

International trade policy decisions typically relate to market access and/or the price that can be obtained by the supply management program. Improved foreign country access to the Canadian market means that Canada would either need to reduce the amount of quota in the domestic market to maintain the current market price, or reduce the market price in order to maintain sales volume, or some combination or both. Any of the three will lead to lower quota value. An agreement to significantly reduce tariffs will lead to lower product prices in the domestic market and, therefore, lower quota prices.

3.5.2 The Markets and Prospects for Supply Managed Products

3.5.2.1 Dairy

The general character of the Canadian dairy market is very stable, especially on the supply side because production quota dictates the volume of milk sold in the domestic market. However, the mix of manufactured products demanded varies, thereby affecting pool returns. Major trends are as follows:

- Based on 2000-2001 utilization, approximately 78% of milk was used in fluid, cheese manufacturing, or butter manufacturing. These categories all have been experiencing increases in consumption.
- Export milk marketed under the former milk classes 5(d) and (e) is no longer part of the revenue pool as a result of Canada's adjustment to the WTO challenge brought by the US and New Zealand. While this removes revenue from the pool, it is not

expected to have a significant impact because the revenue continues to be generated outside the pool through export sales.

The result of these generally positive demand conditions, along with successful promotional efforts on behalf of the Dairy Farmers of Canada, has been to maintain stable and increasing milk prices. We see no reason to expect this trend to change.

Feed, replacement heifers, interest and labour are the major cost factors. Cost of production formulas are maintained to index producer prices received for changes in input costs, though they are not always used to directly adjust milk prices. The following observations on input costs can be made:

- The last four years have witnessed very low grain prices, and they are not likely to go much lower or higher because of US farm programs (this also applies to the poultry complex).
- Hay and forage costs have been volatile due to consecutive years of very wet and very dry weather in eastern Canada and consecutive dry years in the West.
- Replacement heifer prices have strengthened over the last number of years; this is some reflection of the increase in Canadian milk prices. Heifer prices are also influenced by profitability conditions in the US and the US/Canada exchange rate. US milk prices are strong currently and many 1500 to 3500 cow units are being built or expanded in the upper Midwest. Thus the demand for heifers is strong.

3.5.2.2 Broiler Chickens

The chicken market is the fastest growing market within supply management. Its most significant problem has been how to manage the supply under ever increasing demand. Major trends are:

- During the past ten years, growth in production averaged over 5% per year. Canadian chicken production totaled 925 million kilograms in 2001.
- There were 2,800 chicken farmers in Canada in 2000 with average gross sales of $470,000 for about 200,000 birds produced (latest figures available). Of these, 1879 producers were in Ontario and Quebec.
- Chicken demand increased each year for the past 20 years. Growth occurred at both the retail and foodservice sectors, and occurred in all segments including cut-up parts, further processed and frozen. At least moderate growth in demand is expected to continue.

The key negotiation points related to chicken pricing (and therefore quota values) are feed costs and wholesale market trends. In essence, especially with recent changes in Ontario, it is a formula approach to pricing in which arbitrators seek to ensure that overall processor and producer margins are stable. We see no reason to expect this to change. Therefore, system profits will continue to rise since the formula approach will not fully reflect changes in efficiency.

3.5.2.3 Eggs

Egg production amounted to 568 million dozen in 2001 and is growing for both the table and, especially, the processing components. At the end of 2001, there were 1,146 egg producers in Canada, down slightly from the 1,577 in 1991. Forty-nine percent of them were located in Western Canada, while forty-five percent were located in Ontario and Quebec. But 57% of production is in Ontario and Quebec. The most common size of farm is well under 20,000 hens with sales of about $480,000, although farms range in size from several hundred to 300,000 hens.

The farm price of eggs is based on a cost of production formula. This formula is bountiful with regard to the returns that it provides to producers. It assumes worse feed conversion and higher labour costs than growers incur. Moreover, it provides for interest (well above current market rates) and a profit for 100% of invested capital, and includes the levies charged by the marketing board to remove eggs from the higher priced table market to sell on the processing market as a cost for table eggs.

With likely growth in demand for both table and processing eggs and steadily improving genetic efficiency, it is not likely that profitability will fall in this industry. The major internal risk is that regulatory authorities may, at some point, require a more independent and outcome based pricing system.

3.5.2.4 Turkey

The Canadian turkey market experienced overall stability and growth in recent years. However, the demand for whole birds, which comprise the greatest product volume, and for dark meat is declining, while breast meat and further processed markets are growing and expanding rapidly.

Turkey production costs are influenced by many of the same factors affecting broiler chickens. The general cost structure and feed rations are similar. An emerging issue in turkey production costs relates to the demand for larger birds (heavy hens and toms) relative to the production cost. Heavier birds are in high demand for the breast meat and further processed market. However, as the birds get heavier, their rate of feed conversion decreases. Thus, premiums must be paid to maintain larger bird supplies.

3.5.3 Domestic Marketing Issues

The national agencies control the supply management systems. Producer representatives appointed by their provincial marketing boards control these national bodies. The primary purpose of these agencies is to control production to ensure that producer prices are maintained at profitable levels. The main challenges are jurisdictional disputes regarding provincial production volumes. These disputes are the only real domestic threats to the viability and profitability of the system, but they are very low-level risks because the trade-off is that a province may gain market share, but lose the benefits of the cartel. In addition, while there are often pricing disputes between processors and producers, for the most part, primary processors are also large net beneficiaries of supply management.

Moreover, the process for change under the domestic rules is cumbersome and very difficult to undertake. Essentially, all provincial producer representatives must agree to even minor changes in the national system. Furthermore, other than jurisdictional production disputes, there is very little incentive for change. The system works very well for those in the industry. As a result, the prospects for domestically generated changes that would result in harm to producer incomes are almost non-existent.

In addition to the strong profits in the industries, the lynchpin of the system remains quota and the ability to restrict entry to those holding quota. Those exiting the system must sell quota and those wishing to enter the industry must purchase quota. The entry barrier is what provides the cartel benefits. The opportunity to sell on exit is what, finally, provides the mechanism for reaping those benefits. An existing egg producer with only 20,000 hens of quota, for example, currently has a market value for the quota of over $2.2 mil. Most people can live comfortably in their retirement years with the interest on $2.2 mil. People with quota understand this, and are not likely to make decisions that will remove the value just to gain a bit of market share.

3.5.4 2002 US Farm Bill

The new US Farm Bill is of some interest to the dairy industry. Many of the provisions of the new Farm Bill serve to maintain existing US dairy policy. The support price for milk (which is implemented using support prices and "make allowances" for butter, cheese, and skim milk powder) remains at $ 9.90/cwt. The Dairy Export Incentive Program (an export subsidy program) is extended to 2007.

However, the major new initiative for the dairy industry in this Farm Bill is in a deficiency payment scheme, referred to as National Dairy Market Loss Payments. Under this program, a target price of $16.94/cwt is set for fluid milk at Boston. If the price falls below this level, a deficiency payment is triggered that will cover 45% of the difference. This payment is made on actual production enrolled in the program, up to 2.4 million lbs annual production. Based on average milk production per cow of 20,000 lbs/year, this is the equivalent of about 120 cows.

The effect of this scheme will be to put a sliding floor under the milk price, particularly for herds under 120 cows. For herds larger than 120 cows, payments would only be made on the first 2.4 million lbs annual production or its monthly equivalent. The anticipated impact therefore will be to:

- increase producer revenue;
- increased milk production, resulting from the increased revenue;
- lower the milk price and, consequently, producer returns because the deficiency payment only covers 45% of the price fall below the target

The net effect of this increased revenue-increased supply-decreased revenue dynamic has been estimated by the Food and Agricultural Policy Research Institute (FAPRI). Their initial estimates on producer revenue (from milk sales and direct payments) for states in the Pacific Northwest are as follows:

- Washington: + $.56/cwt
- Oregon: +$.19/cwt
- Idaho: -$.02/cwt
- Montana: +$.45/cwt
- US Average: +$.27/cwt

The ultimate impact will differ across farms, but based on 2.4 million lbs of milk (24,000 cwt) and the FAPRI revenue estimate, a Washington dairy farm could receive as much as $13,440 in increased income as a result of the program. An average US farm would receive about half of that.

3.6 INTERNATIONAL TRADE ISSUES

International trade issues fall into two general categories – Disputes and Trade Treaty Negotiations.

3.6.1 Disputes

Most trade disputes are either about dumping or unfair subsidies. Few trade disputes have occurred for Canada in the supply managed commodities because Canada exports so little of them. For example, in broilers only about 6% of production in exported. In other commodities exports are greater but are still small relative to production. Prior to the reform of the dairy export marketing system, up to 10% of milk production in Canada was moved through export classes. This appears to have decreased since the development of export contracts; for example, in 2000-2001 Ontario exported 4.7% of dairy production. In turkeys, exports have increased to over 12% of production in recent years.

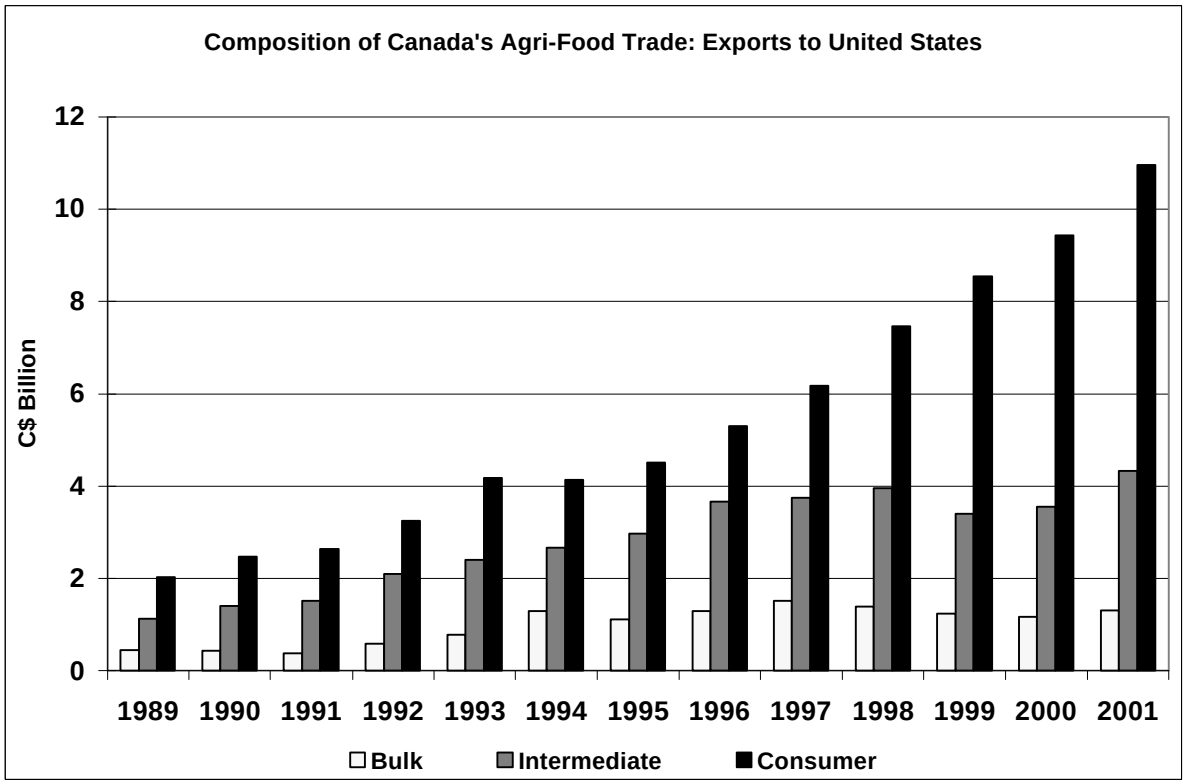
The most recent dispute in supply management is the dairy export case brought against Canada by the US and New Zealand. The US and New Zealand argue that Canadian dairy exports occur by virtue of government involvement, because government-mandated supply management agencies determine export volumes, and that this government involvement constitutes a subsidy. Canada changed its dairy export marketing policy such that exports occur outside the supply management system. This system was successfully defended in a recent WTO decision, however the US and New Zealand continue to pursue action against Canadian dairy exports.

Final resolution of this argument may have a small effect on quota prices. If the export market can grow, then we will likely see adjustments in farm size in Canada. This will reduce non-quota production costs because of economies of size. The result may well be continued increases in quota value. At the limit however, if Canadian exports become significant, then the industries will face anti-dumping actions that will be very difficult to defend because, by definition, a two price system means selling in the export market at prices lower than the domestic market, and likely below total cost of production (US authorities will likely include the cost of quota in calculating the margin of dump. This will lead to very large tariffs.).

3.6.2 Trade Treaty Negotiations

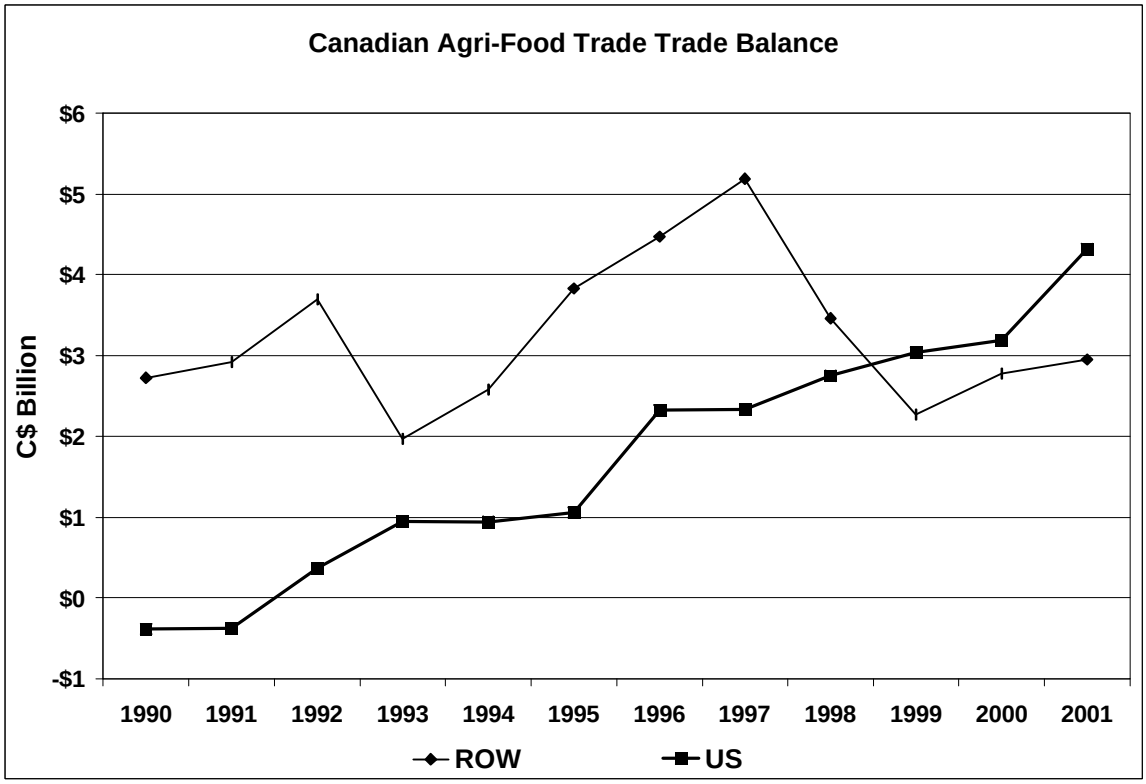
As a result of the CUSTA and NAFTA trade agreements, and the Uruguay Round Agreement on Agriculture, most of the non-supply managed agricultural commodities produced in Canada have little or no domestic protection. Figure 3.27 shows the changes in Canadian agri-food exports to the US since CUSTA took effect. Not only have the value of exports increased significantly, but the composition of these exports has also changed with the growing importance of consumer ready products. Bulk products would be grain, intermediate would be hogs and cattle, and consumer ready would be beef and pork.

Figure 3.27



Overall, Canada has increased its agri-food trade balance (exports minus imports) over the past decade, as shown in Figure 3.28.

Figure 3.28



The supply managed commodities, however, still enjoy a significant degree of protection. There is some risk that the current round of trade negotiations under the WTO will result in less protection for the Canadian domestic market, and lower or no quota values. A number of the parties to this process, including the US, the Cairns Group and most developing countries want to see much better market access for agri-food products. This means, most likely, an increase in tariff rate quotas (TRQs)[18] for the supply managed commodities and/or a reduction in Canadian tariffs on these commodities. An increase in TRQs means all countries which use them would be required to increase them over some period of time. A reduction in tariffs means that all countries would agree to reduce them over time. The questions will be:

- How large will the increases be in TRQs? The larger the increases, the more access to Canada's domestic market for foreign product, the more difficult to maintain the system and quota values in Canada.
- How large will the tariff reductions be? For most of these commodities, Canadian tariffs are from 150-300% (US tariffs on milk and sugar are 125-150%). These are so high that a 50% reduction would have little effect on the domestic market.

[18] TRQs represent a portion of a country's market that can be accessed duty free by other countries. The Canadian TRQs for eggs are roughly 5% of the domestic table egg market. This means that the first 5% that comes into Canada do not have to pay a tariff. Imports outside of the tariff must pay roughly 150% tariffs. Thus an increase in the TRQs means foreign countries have increased duty free access to Canada's market.

- How fast will increases in TRQs and/or reductions in tariffs be phased in? (and how long will the negotiations go on before the phasing in starts!?). After the last round, developed countries had six years. After CUSTA/NAFTA, there were either five or ten year (most agricultural products were 10 years), and even some 15 year phase-ins. The shorter the phase-in, the more pressure we will see on the supply managed industries. Slower phase-ins will allow for orderly transitions for producers, but quota values will decline during the phase-in.

3.6.3 Conclusions and Implications for Quota Values

Our conclusions based on the foregoing are:

- *Quota values are expected to remain firm over the next five to ten years.*

- *The major threat to this statement is the potential impact of trade negotiations*

While we expect that the negotiations will result in reduced protection, it is not clear by how much. If it is not a significant reduction, it will have little effect on quota values in the long term. If it is significant, it will cause them to decline over time. However, we will be very surprised if the phase-in period will be less than 10 years. Moreover, the negotiations will not be completed until 2005 (optimistically). So, the phase-in may not begin for another year or two.

- *If there are significant reductions in trade protection, the act of agreement will have an immediate large negative effect on quota values just as was the case in 1994*.

Many smaller or older producers will want to exit and will want to take their retirement funds, thereby ensuring that the funds will be smaller by selling off quota. They will then likely rise subsequently as people begin to understand the implications of a long phase-in. How far they go in the longer term depends totally on how much the protection is reduced. If it's a 50% reduction in tariffs, or a small increase in TRQ's, then there will not be much effect.

- *We do not yet see much threat to quota value from the internal forces or the dairy trade dispute.*

The vested interest in maintaining quota price is huge. The only real threat is that the regulatory authority will exercise some responsibility in the case of the egg pricing formula. There is no sign this will occur.

- *Any significant change in trade protection will not be made overnight.*

In the last round, it was very clear well before the decisions were finally made that tariffication was likely to occur. This means that the Government and marketing boards need to carefully monitor the WTO negotiations and be prepared to adjust quota policies if the process appears to be headed somewhere.

- *The only other threat to quota values would be a sustained increase in profitability of other industries.*

This would likely have to be led by the grain and oilseed industry, and we do not see this as likely unless weather patterns change markedly in a number of producing regions. Otherwise, the horticultural industry is too small to absorb very many resources, the hog industry is in the midst of another expansion that will reduce its profitability soon and the beef industry is only likely to see strong profits in the breeding herd component. These prospects do not cause us to expect a drop in quota prices because of rising opportunity costs.

4.0 RELEVANCE OF THE HISTORICAL OBJECTIVES

The purpose of this section is to examine the objectives originally assigned to the regulated marketing system in British Columbia and to discuss their relevancy to the industry today. This section will also examine what objectives might be most appropriate for the regulated marketing system today in light of the industry and its performance as outlined in the previous section.

4.1 HISTORICAL OBJECTIVES

As noted in Part One of the Core Review on Regulated Marketing, "various reports and authors suggest similar but slightly different objectives for regulated marketing. The 1942 report by Judge Harper notes that the objectives of regulated marketing are: orderly marketing, greater efficiency in distribution, better grading and quality, better prices for the grower, and more equality of opportunity for the grower in the sale of his own product (Harper, 1942). Other reports suggest similar objectives and define market efficiency in terms of price stability, and predictable supplies (Poetschke & Mackenzie, 1957; Coffin et al., 1989, Proulx et al., 1989). They also add the objective of promoting independently owned farm businesses and the desire to offset the emerging trend to vertical integration and contract farming."

Eventually it was determined that the following list provides the best summary of the early objectives of regulated marketing:

1. Improve and stabilize producer incomes
2. Improve the stability and predictability of commodity prices by 'dampening' volatile price swings
3. Ensure stable, predictable and adequate supplies
4. Promote and encourage the economic viability of small closely held (family) farm businesses.

While it does not seem to make the list of objectives in the historical context, our consultations with the industry indicated that "equity" was and is a very important consideration for participants in some industries. In BC, this issue seems to have at least three elements:

- Price discrimination: this follows from the section above on industry concentration. The concern is that highly concentrated buyers have the power to discriminate on price against small individual producers.
- Market access: the fear is that small, individual producers will not have access to some parts of the market, and cannot deliver.
- Regional access: there appears to be a large concern about fairness of access by producers in different regions. The concern is that end users will unfairly discriminate against producers from various regions.

Our point in discussing this here is not that we agree or disagree with the issues. Rather, whether or not it was a stated objective of the policy that established the

regulatory bodies, it is an important driver of much of the regulation. Therefore, it must be addressed consciously.

4.2 ASSESSING THE RELEVANCE OF THE HISTORIC OBJECTIVES

This section of the report analyzes the merits of the existing objectives within the context of today's market environment, and whether the existing regulatory system has met them.

4.2.1 Improve and stabilize producer incomes

This objective could be assigned to most industries and individual firms. Most industries would like to see their incomes improved and stabilized (preferably rising in a fast, stable trend line). In addition, most try to avoid volatile price swings and they seek to reduce supply fluctuations and variability.

Is it relevant for today? Incomes may be inadequate and tend to be unstable in all commodity markets. Therefore, it may be an objective of public policy to improve and stabilize them. The problem is that as the market tends to be less commodity oriented and more differentiated, the nature of the problem changes. Income adequacy can occur because of general market conditions, or it can result from one or more producers having the wrong product characteristics for the segment they are trying to serve. Hence both adequacy and stability of incomes are affected by individual production and marketing decisions, as well as aggregate quantities.

Another aspect of this issue is whether the goal of public policy should be to simply ensure that incomes are adequate, or to help with income adequacy when the jurisdiction has a reasonable competitive advantage in the production of the product. To illustrate, assume a producer decides to grow bananas in a green house in the Peace River region. Is it reasonable to expect the public to ensure the adequacy of income for such an operation? Not likely. Therefore, an alternative way to state this type of objective is to encourage and facilitate economic growth and development in the agriculture and food industry.

4.2.2 Improve the stability and predictability of commodity prices by 'dampening' volatile price swings

Since income is price times quantity, it is our view that this objective is really part of the previous one. From the perspective of potential instruments of public policy, the only difference is that the first objective concentrates on only income, while this one focuses on prices. We see no need to say the same thing twice.

4.2.3 Ensure stable, predictable and adequate supplies

This objective is apparently aimed at consumers. Our interpretation is that it means that the intent is to ensure supply for end users. In our view it is no longer an appropriate

objective of public policy for two reasons. First, from a domestic perspective, if public policy can ensure economic growth and development in the agriculture and food industry, then supply will be assured, barring acts of God. Hence, emphasis on the first objective will accomplish this from a BC perspective.

The second issue is that, for most of the products in question, BC produces relatively miniscule quantities (as will be shown later) of regulated marketing products. For vegetables, there are no meaningful border controls. This has two implications. First, since BC buyers can (in theory for supply managed commodities, and in practice for vegetables) buy from anywhere, a substantial decline in BC production would generally not threaten the adequacy of the supply of food for BC consumers. Second, since BC is such a small producer, actions taken in BC would have very little impact on the total supply.

In addition to these factors, all of the products under consideration are readily substitutable: e.g. if potato prices rise because of a shortage of potatoes, consumers can substitute other sources of carbohydrates in their diets. Therefore, in the large sense, it does not seem that BC has the market position to have much impact on adequacy of supply.

4.2.4 Promote and encourage the economic viability of small closely held (family) farm businesses

This is impossible to assess, define and defend. Governments or researchers have never successfully managed to define what a “family farm” means. Some have used the word “family” as a proxy to mean small. This is inappropriate given that independent families in fact run most of the largest farms in British Columbia. Furthermore, if the goal was small family operations, the “family” aspect of the operation in fact has often afforded the opportunity to skirt the restrictions on size of operation in the regulations.

As an additional point, it is an indefensible argument from a legal perspective to state that independent, family operations are preferable to other forms of business structure such as a corporation, cooperative or partnership. In fact, many family farms are also corporations or partnerships.

4.3 PROPOSED OBJECTIVES FOR THE FUTURE

British Columbia’s regulated marketing system requires objectives that are relevant and unique to the province. In addition, British Columbia’s regulated marketing system requires new objectives that are compatible with the realities of the British Columbia food and agriculture industry today. Finally, British Columbia’s regulated marketing system requires objectives that are focused on the workings or mechanics of the system as well as desired outcomes.

In order to bring forward new objectives, it is necessary to provide a criteria within which to evaluate their relevance today. We suggest the following criteria are useful in evaluating economic objectives for any industry and any marketing system:

- Are consumer signals sent and received?
- Can the industry adjust to and respond to the signals?
- Are there unnecessary costs from the regulations?
- What economic benefits result from the regulations?

These criteria result directly from the concepts of competitiveness discussed in Section 3.0, and represent a simplification of our competitiveness test for regulation. On the ground that businesses attain competitiveness through a combination of differentiation and cost strategies, the criteria are designed to reflect the basics of the two strategies.

The first asks whether the regulatory system is set up so that consumer signals about their preferences can be clearly sent by consumers and received by producers. The second asks whether or not regulations allow producers to make the adjustments required in order to respond to customer needs. These both get at the issue of differentiation.

The third focuses on the cost side of the differentiation concept. The final one responds to the revenue component; a regulation may impose additional costs, but if it enhances revenue, then it adds to their competitiveness.

Based on the foregoing and the discussion of relevant issues in Section 3.0, it is suggested that the following objectives are appropriate for the BC regulated marketing system as it adjusts and moves forward as a part of the provincial, national and international food industry.

The objectives of the British Columbia regulated marketing system are to assist the system to:

1. Encourage and facilitate economic growth and development in the agriculture and food industry
2. Efficiently meet the needs of new and developing markets, technologies and opportunities
3. Efficiently send market signals about consumer preferences to producers
4. Respond to market requirements by producer members.

This set of objectives follows from the discussion of historic objectives in section 4.2, and from the earlier discussion on competitiveness. These objectives implicitly suggest that a regulatory system should assist industry to seize and capitalize on its economic opportunities, and do so by efficiently responding to market opportunities. These objectives clearly address the issue of market segmentation discussed in Section 3.0. Similarly, they are in line with Canada's WTO obligations.

The objectives only indirectly address the issue of market concentration. Concentration occurs if larger entities are more cost efficient and/or respond better to customer needs

than smaller entities. The negative consequences of concentration are high "costs" associated with monopoly rents and the build up of bureaucracies that blunt the ability to respond to market signals. These objectives have no place for either monopoly rents or blunted market signals.

4.4 IMPLICATIONS OF THE CURRENT AND PROPOSED OBJECTIVES FOR SUPPLY MANAGED COMMODITIES

This evaluation of the current regulatory system in British Columbia is written from a relatively high level, using the concepts of the criteria for competitiveness in the previous section, as well as addressing how well the current regulatory structure addresses the income objective. The scope of this project is not sufficient to claim that we have undertaken a detailed analysis of the regulations of the various boards and commissions. Rather, a broad analysis of their regulatory framework is the basis of the following discussion. This discussion begins in this section with an overview of the supply managed commodities and then address the other commodities in the following section.

The supply managed boards have clearly been able to enhance and stabilize the incomes of producers. This is because, first, the national system, of which BC is a part, has been exempted from the Competition Act and, as a result, has control over supply and pricing within the domestic market. In addition, before the 1995 WTO Agreement, imports were controlled by tight import quotas. Since 1995, the historic import quota regime was replaced by extremely high tariffs, as well as binding tariff rate quotas.

As a result, the regulatory system has direct control over domestic supply and price, while import restrictions limit external supply. Therefore, farm incomes have been raised and stabilized.

The nature of the national allocation systems have, as we saw in section 3.0, also increased BC's market share for some supply managed commodities, but not others. In the latter case, the system directly manages supply and price of table eggs, but not "breaker" or processing eggs. Most of the growth in Canadian egg product has occurred in the breaker portion, and it has occurred in parts of the country that have feed and transportation cost advantages over BC.

The supply managed industries currently would have difficulty achieving most of these new objectives. The nature of supply management makes it very difficult and costly for producers to enter these markets, primarily due to the cost of quota but also due to regulations that generally do not encourage new entrants (eg. new dairy quota can only be awarded to current producers). These barriers to entry do not encourage and facilitate economic growth.

The objective of meeting the needs of new and developing markets, technologies and opportunities has significant implications for the supply managed sector. As discussed in Section 3.0, the market for food products is becoming more and more segmented,

and especially so in British Columbia. Market segmentation, therefore, represents an important opportunity for the supply managed industries to grow their markets. However, attempts by various Boards to accommodate the development of new markets have not been satisfactory to those producers who have attempted to exploit such markets. Programs that are in place, such as the dairy Cottage Industry Program and the chicken New Entrant, Niche Market and Specialty program, are a step in the right direction, but a very small one. These programs recognize that specialty markets exist, but they do very little to encourage and facilitate the development of such markets, and therefore, economic growth.

The nature of the supply management system (i.e. production quota, national allocation system) does make it difficult to meet the needs of new and developing markets, however there are ways to overcome this. It is important for producers who currently own quota to understand that this is not a zero-sum game – encouraging the development of new markets does not necessarily mean that the 'old' market will shrink accordingly. Rather, the development of new markets can only mean greater long-term economic health for the industry as a whole.

The supply management system also makes it difficult to efficiently send market signals to producers. Market signals are masked by the national allocation system, significant import barriers, and the Boards' powers to set producer prices. A desire to work together, and cooperation between producers, the Boards, processors and retailers is necessary if market signals are to reach producers as efficiently as possible, notwithstanding the inherent restrictions of supply management.

4.5 Implications of the Current and Proposed Objectives for Non-Supply Managed Commodities

Non-supply managed commodities are in a totally different market situation than are the supply-managed commodities. There are no material border measures for these products. So, a grocer in BC can buy potatoes or mushrooms from suppliers in BC or anywhere else. Similarly, the regulatory regime does not control domestic supply in BC in the way that is done by the supply managed industries, although they provide a system of delivery quotas that give producers equal access to the market. Prices are not controlled by the regulatory agencies, but are rather articulated in the context of prices of similar products from outside BC.

It is difficult for us to conclude that this regulatory regime can effectively increase or stabilize farm incomes. In most cases, BC's production is a fraction of the production in surrounding regions. This is illustrated by Figures 4.1 – 4.3. They contain BC's production of potatoes, tomatoes, and cucumbers as a percentage of production in Washington, Oregon and Idaho, or of California. In all three cases, BC's production is less than 10% of production in the US jurisdiction. Given the lack of border control, it is difficult to understand how a delivery quota system that operates on product within the province can have much impact on either the level or volatility of prices and incomes for these products. One assumes that they may affect day-to day price changes but, since

the total amount of product is not controlled, it is not clear why the overall volatility would be materially different than in an unregulated market. What is most unclear about this is how individual producers or their agents would learn to adjust absent the regulatory regime.

Figure 4.1

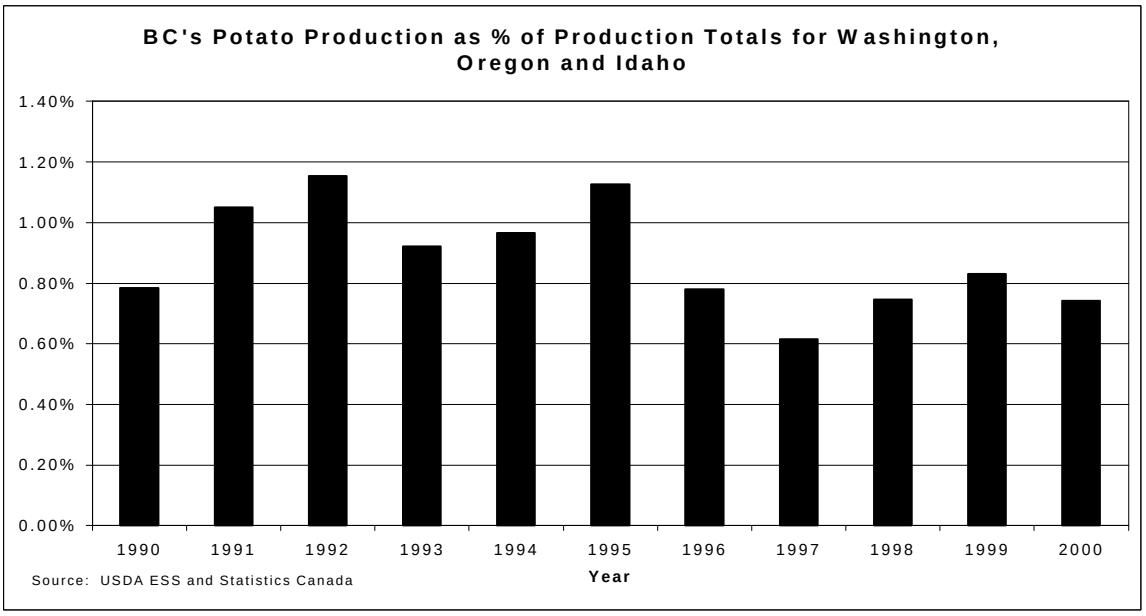


Figure 4.2

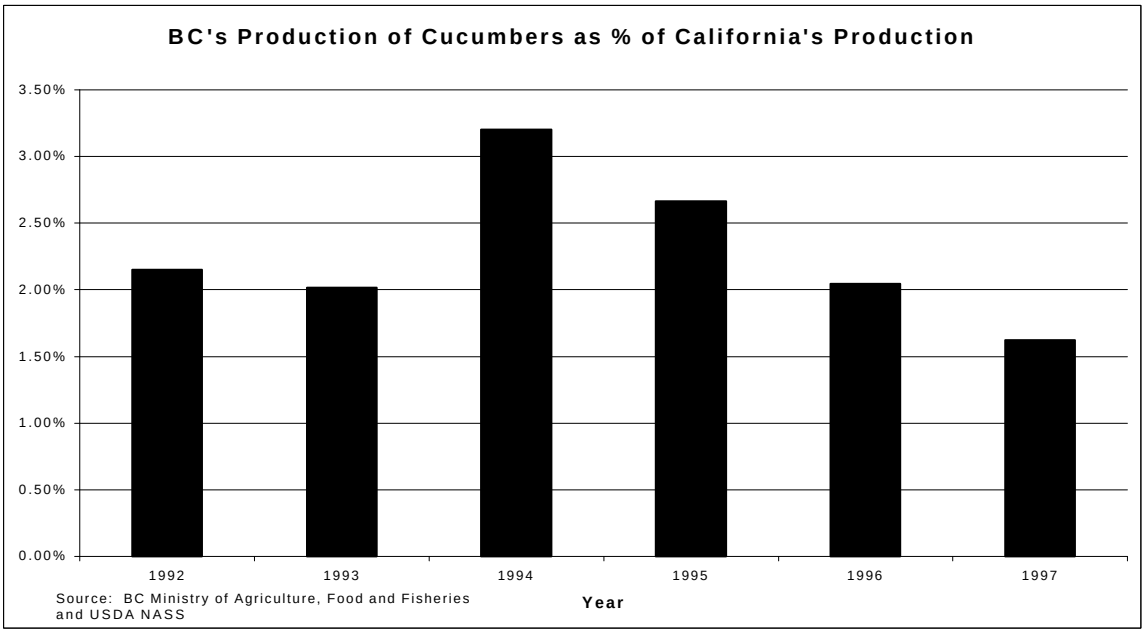
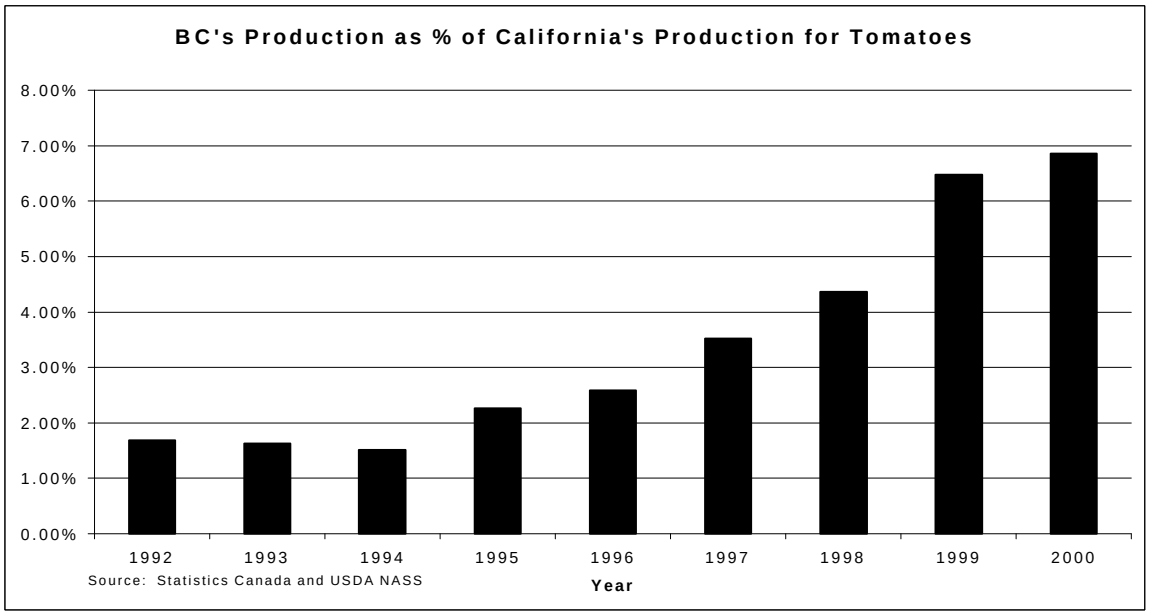


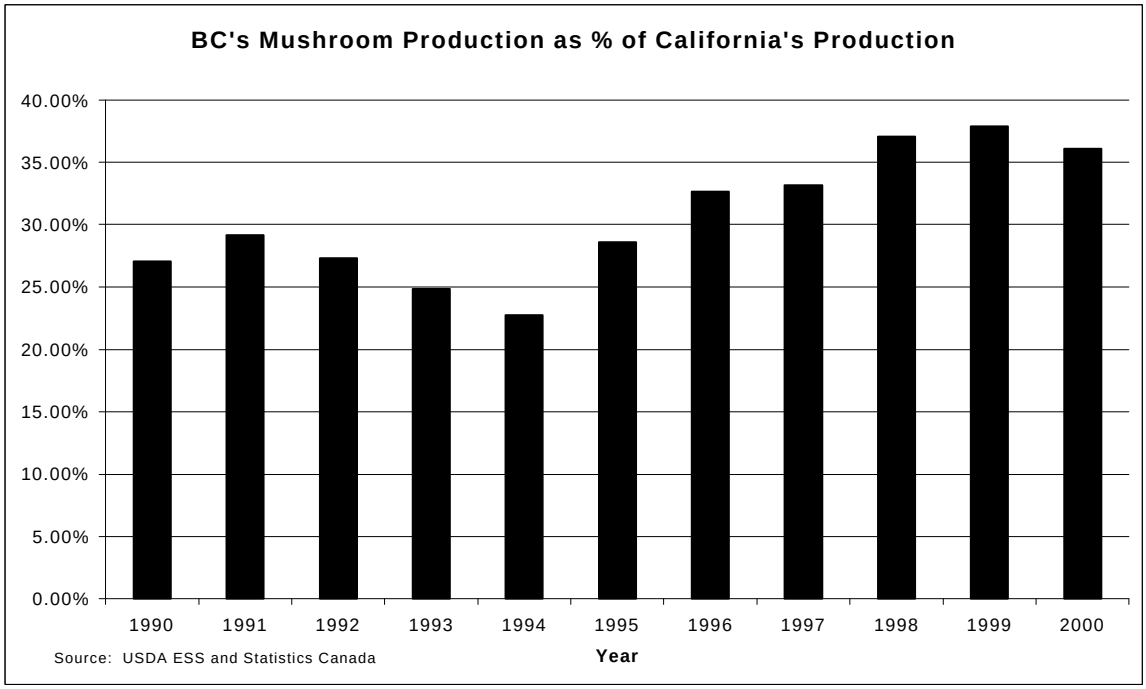
Figure 4.3



Our understanding is that the Mushroom Commission is moving away from the quota system and moving toward a system that encourages quality and marketing capability. This change underlines our questioning of the effectiveness of the quota system. As Figure 4.4 shows, BC's production of mushrooms relative to California's is much greater than the earlier three. Therefore, if a quota program is not seen as important there, its value in markets where BC's production is proportionately smaller can be questioned.

At least one argument from the Vegetable Commission is that the current system protects producers from being taken advantage of by a highly concentrated set of buyers. Our counter would be that the price reporting function of the Commission should already be affording that protection because it provides the same information as buyers have.

Figure 4.4



The impact of regulations in the non-supply managed industries on the remaining objectives is more difficult to assess without an in-depth study. The fundamental issue is whether being required to sell through approved agencies provides limitations to the industry, which hamper growth and differentiation. If the agencies work in ways that allow differentiation to occur for those end users who want it and for those producers who want to pursue it, then there may not be a problem with the current structure. On the surface, however, we anticipate that for the Vegetable Commission, differentiation is not a particularly valued topic. This is in part because of the quota program, which appears to allocate market to producers according to when it is their turn, as opposed to product that is demanded in the marketplace. It is also because of the reaction of the General Manager in our consultations. It would appear that the focus of the Commission is on equity of market access for producers. Therefore, it implies that products are regarded very much as commodities.

Our understanding is that the Cranberry Commission generally does not use its regulatory power, although it has been invoked recently to help head off a potential trade dispute with the US.

An issue that seems to be generic to all the regulatory organizations in BC is regional restrictions. They are imposed to ensure equity of access. Generally when these kinds of restrictions are required, it implies that the market wants to move production among regions. The restrictions, therefore, end up ensuring that production and distribution costs are higher than necessary because adjustment is restricted.

5.0 RECOMMENDATIONS FOR POLICY CHANGE

The following alternatives are considered as potential changes that could be made in BC to meet the challenges of the current and future economic environment. The alternatives are divided into two broad sections, supply managed and non-supply managed. This is done because the former is based in part on national legislation as well as federal/provincial agreements, while the latter is based solely on provincial legislation.

Similarly, while we put forward four policy objectives in the previous section, fundamentally, they collapse to two issues: increasing system efficiency (reducing system costs), and enhancing the ability to differentiate. Hence the focus of the discussion around options is on these two factors. It is ironic that in her wonderful little book, *The Nature of Economies,*[19] Jane Jacobs argues that the process of development is universally (i.e. in biology, economics, indeed the universe) about differentiation emerging from generality. And each new differentiation results in a new generality that can be differentiated. So, differentiation is central to both the first and remaining objectives. Similarly, in a regional economic sense, once differentiated, an economic activity will not continue to be undertaken in an area unless the area's consumers can obtain it at lower cost from local producers than from elsewhere. Thus, differentiation and efficiency go hand-in-hand: differentiation creates value and competitiveness, while efficiency maintains competitiveness. For most organizations, differentiation is usually the source of breakthroughs, while efficiency is a process of continuous improvement.

For each alternative, we attempt to identify the potential policy alternatives, then provide a discussion of their economic consequences.

5.1 SUPPLY MANAGEMENT

The supply management regulations are written with the understanding that British Columbia is a part of the national supply management systems for dairy and poultry. BC consumers, retailers and processors will have to deal with a national supply managed system regardless of what the province may desire. In other words, the national system is not going to materially change regardless of BC's wishes, although it could change somewhat in response to actions taken by BC.

5.1.1 Identifying the Options to Encourage Differentiation

In the supply management milieu, as we discussed earlier, differentiation is very difficult to deal with, and it is complicated by the fact that BC's total production allocations are arrived at through national agreements. So, there is conflict **within** a province between the traditional and unique or differentiated products because of initial market development costs for the unique products, potential for differential growth in demand for the unique and traditional products, and because the system creates economic rents that many people want to share. On top of this is similar conflict **between** provinces for

[19] Jacobs, Jane, *The Nature of Economies.* Toronto: Vantage Press, 2000.

all the same reasons, as well as the fact that different provinces face very different market conditions. All potential solutions are less than globally optimal, but there are four options for the BC supply managed industries:

- **Remain a part of the national system.** Under this option, as now, the national boards essentially determine a national amount of production and provincial boards produce a share based on mutual decisions about the share allocation. Perhaps this process is clearest for chicken, where national maximum growth rates are established as well as maximum growth rates for regions.

- **Operate a system separate from the national system.** Under this option, BC poultry and dairy boards would not remain part of the national system, but rather would operate a separate system in parallel to it. Quotas and pricing mechanisms would be retained, but would not be constrained by the national rules. The most obvious potential reasons for an individual provincial industry to do this would be to produce more and/or to set prices at levels distinctly different from those across the country.

- **Renegotiate the federal/provincial agreement.** As indicated in earlier sections, there is substantial conflict between traditional product and specialty product producers in some of the commodities. Fundamentally, the problem is that, because the supply managed commodities are managed at levels of output and prices that are quite profitable, there is little incentive to produce specialized products within the current agreement. In other words, existing producers of traditional products would be willing to produce more traditional product – and likely make investments to increase their capacity under the current system. In most cases, specialty products require new investment and market development expenses. Hence, while they may ultimately be as or more profitable than traditional product, the short term has large costs and large uncertainties.

  The issue of increasing specialty products is not unique to BC, although it may have more opportunity for BC. Therefore, other provinces may be interested in exploring ways to encourage its growth without discouraging traditional production. By definition, specialty product is different from traditional product. To some extent, specialty products are not direct substitutes for traditional products. Therefore, they would be expected to have a different rate of demand growth. Following this, it makes sense to initiate, in the federal/provincial agreement, one or more new classes of quota. If one, it would be specialty products. If more than one, it could be “organic” and other specialty products.

  In our view, such categories would only be created if they rely on distinctly different production processes, something that is a clear innovation in production, and/or that gives a final product with characteristics that are distinguishable to consumers. Producers with specialty quota would have separate facilities (but there is no reason to require that the same producer cannot be involved in the

production of two or more types of product). Initial quota allocations could be given to producers or sold to them.

We would see administration of national and provincial quota for specialty categories being done in a manner similar to the current system – i.e. an assessment is made of the national demand to establish the national quota, the demand by province for the provincial allocation, and an appropriate pricing mechanism could be established to reflect differences in production systems. The key elements of the system would be the uniqueness of the product, and a different growth rate of the amount of quota to reflect different determinants of demand.

- **Withdraw from the federal/provincial agreement and dismantle supply management.** This alternative is relatively straight forward in terms of its application. It simply means that BC dissolve its boards (or, more likely, transform them to producer bargaining associations) and allow the market to function. Most likely, for these products, the markets would go to contract production, although a cash market is possible if not likely. Processors would be in a position to determine the quantities of output that would be produced – perhaps after prices are negotiated for one or more production periods.

  At the same time, this structure would allow negotiation of contracts for specialty and traditional products. A potential model for this structure is the Ontario Vegetable Growers Marketing Board, which negotiates contracts for processing vegetables with processors on behalf of growers. This board has separate contracts for canned tomatoes and for tomato paste – products that require separate raw product characteristics. In fact, this board negotiates separate contracts with different processors for paste depending on the processor's manufacturing capabilities and needs.

5.1.2 Evaluating the Alternatives

In this section, an analysis of the likely economic implications of each of the alternatives is presented.

- **Remain part of the national systems.** Remaining part of the national systems likely means that not much would change. They are profitable for their participants and, therefore, they will not likely go through significant change from internal pressures. They face the threat of change from external forces if the WTO comes to agreement on a significant reduction in border measures, a prospect that appears to be highly unlikely in the current decade.

  This means that the BC industries would continue to grow their production at the rate determined by growth in national quota. This may be a relatively positive development for the BC industries because of feed costs. Given its location and natural resource allocation, BC has relatively high feed costs and its level of

production precludes some economies of size in processing of livestock products. Therefore, absent the protection afforded by the supply management programs, it is unlikely that production of these products would grow as fast without the national supply management program as with it. The growth rates attained by BC would not likely be attained and other provinces could supply BC at lower cost.

At the same time, BC's high cost and relatively low volume dairy and poultry industries will likely continue to discourage processing of commodity products in BC. Faced with lower prices and larger actual or potential volumes in the Prairies, the economics likely favour processing there and shipping to BC.

Quota values are likely to continue to rise with this option because production does not increase as fast as demand, the systems remove most market uncertainty, and costs can be significantly lowered with new capital investment. The latter contributes to increased quota values because, at the margin, producers with new capital that is cost reducing and output increasing are always at less than full capacity. They can pay high prices for new units of quota because of the overall effects on their costs. Moreover, the national system relies on the federal supervisory board to maintain discipline, but it has little power or inclination to do so. For example, there is a widespread perception that the quota and pricing system for eggs are set up in ways that tend to maximize quota prices, but little is done to brake them.

Continuing as at present would likely do little to encourage the production or processing of specialty products. As indicated above, the current systems provide positive returns to existing producers to produce commodity products.

- **Operate a system separate from the national system.** This alternative has risks and potentials. The potential is that BC could increase its market share and, depending upon whether product prices are established lower or higher than competing regions, it could encourage processing. This, of course, also depends on BC's production volume because of the inverse relationship between volume and cost of processing per unit. At the same time, it may well be easier to introduce specialty categories of quota if BC was not part of the national organization.

  The risks of withdrawing and operating a separate system are two-fold. At one extreme is the possibility that BC boards would increase prices, thereby raising quota values even higher and providing less incentive for value adding in the province. At the other extreme is the risk if raw product production is increased substantially and prices are reduced. At some point, this would invite retaliation from the national agencies and neighboring provinces, who have advantages in feed and, likely, labour costs. One can easily see the development of a two-price system by the national agency aimed at retaliating against BC. To some degree,

BC's location gives protection, but at the limit, the Prairies likely have the advantage.

A confrontational situation with the national board is likely to cause uncertainty in the minds of processors. This will reduce the likelihood of their investment in processing facilities: nothing is more discouraging than to do capital budgeting based on relatively high production and low product prices outside the national system, and then to see BC return to the fold with high raw product prices and low volumes. Any prospect of this would cause onerous discount rates to be used in any private firm's capital budget.

- **Renegotiate the federal/provincial agreement.** The advantage of this alternative is clearly that it would be a way to accommodate specialty production. Also, by having separate quota, there would be transparency about how well the market accepts the specialty product, or at least its acceptance given the regulatory program.

  Separate quota categories would at least ensure that competition between specialty and traditional product is transparent and would, therefore, facilitate the evolution of a pricing system that would accommodate both. Separate quota would also facilitate any necessary adjustment by producers. A producer who wants to switch from one category to the other can do so by selling quota in the current category and using it to buy quota in the other.

  The major problem with this suggestion will be to get it done. It will take the agreement of all the provinces and the federal government, which will take a significant amount of time and negotiation. Undoubtedly, there will be those who feel threatened and will resist such changes.

- **Withdraw from the federal/provincial agreement and dismantle supply management.** This is clearly an extreme case of the second alternative. It has the potential advantages that it could, in the short term, increase economic activity, reduce consumer costs, make introduction of specialty products as easy as in any unregulated product, encourage processing, and eliminate quota costs.

  Unfortunately, the alternative has two major downsides. The first is that it would almost certainly encourage retaliation from the national agencies and the Prairie Provinces. Again, at the limit this could be quite disruptive for BC, especially in the production and processing of traditional commodities.

  The second disadvantage is that removing supply management, especially if it were to be done in a short period of time, would cause very considerable disruption among existing producers. Many have operations that do not have the capital structure to compete in a non-regulated market. They would need to make considerable investment or remove themselves from the market. For those with less than optimal scale, their salvage value would be low. Similarly, and very

importantly, several hundred million dollars of quota value would disappear from balance sheets, and those who have borrowed heavily against it would likely be placed in bankruptcy.

One could contemplate moving to a non- or less- regulated system over time. But the issues here are, first, that it is not clear what the intermediate steps would be to get there. Second, this would give the national agencies fair warning to plan their responses. Third, any indication of the end of the system would immediately have a major negative effect on quota values.

The only way we see that this could occur is for government to compensate growers for some portion of their quota value as an encouragement to either exit or invest in new capital. Even if this was done, the threat of retaliation and BC's position as a relatively high cost producer mean that the risk of ultimately losing a large portion of the industries is high.

5.1.3 Our View of the Alternatives

For what it is worth, our view of these alternatives is that the best outcome for BC would result from pursuing a new federal/provincial agreement that would develop separate categories of quota. We believe that the WTO will allow sufficient protection to allow supply management to go on for a number of years. Given BC's relatively high feed costs, the best outcome for it will be to continue to gain or maintain market share of the traditional market and to obtain as much share as possible for new products. A new agreement is the best way to do that.

Continuing with the current system is tantamount to continuing with the current problems. Running a parallel supply management system or threatening to do so may be a good short term tactic to encourage a new agreement. Dismantling the system completely while the rest of the country maintains it will invite tremendous dislocation and likely retaliation from the rest of the country.

If the federal/provincial agreement cannot be renegotiated, then it will be very difficult to do very much development of differentiation. The system is stacked against adjustment. Some alternatives that could help, either with or without a new agreement, include:

- **Reserve a minimum percentage of any new quota for specialty markets**. This could be given to new entrants or those who want to start new ventures. Or, rather than giving new quota away to existing producers, auction it off. The proceeds from the auction could be distributed to current quota holders on the basis of how much quota they own. The latter would compensate those in the business who cannot obtain new quota. On the other hand, it adds to the costs of establishment and market development for those who want to try the specialty route.

- **Eliminate restrictions regarding the ability of current quota holders to obtain new quota for the purpose of serving specialty markets**. The only restrictions on current quota holders that are required are that specialty quota be produced in facilities with new investment and/or they develop a product with different characteristics. Some boards do not allow new operations to include existing interests or existing producers. This eliminates a substantial portion of the knowledgeable people who could develop differentiated products, for no obvious reason. In most aspects of business, differentiators have separate facilities, brands and/or products for alternative market segments. We see no reason to penalize existing producers who want to try something new.

- **Boards could be assessed and measured by the supervisory body based on the steps taken to encourage market segmentations based on consumer demands**. Market segments such as environmental stewardship, animal welfare or organics should be encouraged within the quota system. Such encouragement is required at the Board level, both in terms of attitudes toward development of specialty markets and in terms of actual regulations. These issues are largely related to governance, which is being addressed in Part Three of this Review.

- **As part of the foregoing, Boards could be required to develop programs designed to facilitate trace-back and identity preservation.** Trace-back and IP are likely to be a key part of the manner in which differentiation occurs. Some of the boards seem to resist the move toward these potentials. So, perhaps by requiring them to go through the entire process of assessment and development of protocols, it would cause more of them to understand and encourage the possibilities.

5.1.4 Reducing System/Production Costs

The major (non-quota) costs that are affected by the regulatory structure are those associated with size and location. They can affect costs by limiting economies of size, collection, and location. In other words by restricting the size of quota holding, or the ability of two or more producers to operate together at one location, the ability of producers to obtain economies of size in production are lost.

What is often lost in arguments about economies of size is that there are frequently costs associated with size and the distribution of inputs (e.g. feed), or the collection of product. Small farming operations mean that distribution and collection (e.g. of milk, eggs, or poultry) costs are higher than need be because the number of stops required to obtain a full load is increased, as may be the total distance traveled to obtain a full load. Another potential aspect is that they may result is loss of economies of size in transport operations. Still another is loss of economies of size in input manufacturing or product processing. For example, a widely dispersed network of small producers may lead to a high cost feed manufacturing industry or egg grading stations that are small and costly because of the high cost of collection.

Similarly, forcing production to stay within a high-cost producing region can increase cost.

Assuming that one of the alternatives is chosen from above that would retain supply management, a number of alternatives are available that could assist in reducing system costs. They are not mutually exclusive: so, more than one of them could be adopted. They are:

- **Remove limits on quota holdings or farm size**. A number of the boards have these limits. Removing them will allow farms to invest in capital to increase economies of size, distribution and collection. One advantage of the quota system is that it allows the most efficient to bid the highest for quota. Therefore, if there are advantages in terms of size, then removing restrictions on quota holdings will allow adjustments to occur. Moreover, it will enhance the ability of environmental considerations and/or regulations to have appropriate influence in determining optimum farm size.

  There is also an element of risk management in this suggestion. There has been a rapid consolidation of livestock enterprises in the US. For example, most new dairy facilities in the upper Midwest are in the range of 1000 – 3500 cows. These operations have tremendous production cost advantages, as well as collection and distribution advantages. If the WTO negotiation process does eventually result in commitments to substantially reduce trade barriers, then Canada will need to adjust. If economies of size and collection costs are important, then a lack of action in Canada beforehand will mean much more hardship when it is needed. If the supply management system can encourage efficient adjustment in the interim, then the problems of adjustment after a WTO settlement will be much less. Ironically, efficient adjustment may also lessen the internal and external pressures on the system.

  One consequence of removing size constraints is that it will invite integrators to invest in farm production. Supply management ensures profits and removes most market risk. These are two characteristics that most corporations love. Size limits were imposed in the first instance in order to discourage corporate ownership. If the populist notion that farms should be independently owned is important in BC, then this will cause a problem, the best solution to which is likely to impose restriction on who can or cannot own quota. This “solution” will present quite interesting problems of enforcement because of the creative ways people will find to invest in these profitable industries.

- **Eliminate regulations that force production in specific regions or locations**. In other words, allow quota to trade across regional boundaries. The economic reasoning for this alternative is self evident from what was written above. There may be good political reasons not to do this, but that is a tradeoff we cannot make. Where there are environmental concerns, these should be addressed through environmental regulations, not through regional quota restrictions.

- **Encourage (do not limit the ability of) small operations to combine**. Some of the boards limit existing quota holders from combining small quota holdings into larger, more efficient joint ones. As a result, six 40-cow or 6000-hen operations are geographically dispersed, causing distribution and collection costs to be high, and preventing the producers from enjoying economies of size. Allowing them to collaboratively build and operate one facility would enhance their, and the province's, cost competitiveness.

5.2 NON-SUPPLY MANAGED ALTERNATIVES

The non-supply management alternatives are written with the knowledge that many boards do deliver necessary marketing functions for their producers. As discussed in Section 4.0, the Mushroom Marketing Commission is moving away from regulating production through quotas and instead plans to focus on regulating the quality and food safety of mushroom production. The Cranberry Board has used their regulations infrequently, most recently to avoid a trade dispute with the US. The Hog Marketing Commission is already well on its way to deregulation, having made significant changes over the past few years. The focus of these recommendations, therefore, is on the issue of quota and licensing of marketing agencies by the Vegetable Commission.

5.2.1 Options for Structural Changes

There are four alternatives that can be identified for the potential structure of the Commission. They are:

- **No change.** This is self explanatory.

- **Require the Commission to prove that its regulatory functions accomplish their objectives.** As indicated in section 4.0, the value of the Commission's marketing quotas is dubious, in terms of both system costs and differentiation, and their impact on price stability. Similarly with the current agency licensing arrangements. In order to encourage competition and innovation in the supply chain, it is not clear why the number of marketing agencies is limited and otherwise regulated to the extent they are.

  However, since our task here is not to conduct a thorough analysis of these programs, it is possible that we are missing something. Hence, one alternative is to follow the Australian policy of requiring regulatory bodies that have the power to restrain trade to prove the value of these regulations[20]. If the benefits cannot

[20] Australia provides a good example of this type of regulatory review, as they have recently subjected their regulations to a 'public interest test'. This test says that legislation should not restrict competition unless it can be demonstrated that the benefits to the community as a whole (i.e. not just those who are regulated) outweigh the costs; and the objectives of the legislation can only be accomplished by restricting competition.

be shown, then the quota program should likely be held only for emergency uses such as the Cranberry Board has done to stave off a trade dispute with the US.

- **Transform the Commission to an Association Status.** This may follow from the foregoing. It would remove the Commission's regulatory powers, but give it responsibility to provide current price and other market intelligence to individuals or marketing organizations to facilitate their production and marketing decisions. All producers marketing the commodity would forward check-off fees for this set of functions.

  This structure would be similar to that of the Ontario Tender Fruit Marketing Board. This organization provides market information and suggested wholesale prices producers. The Board also conducts cooperative advertising and promotion programs with retailers. It also helps to coordinate product flows between buyers and producers on a voluntary basis, i.e. a quota system is not utilized.

- **Restructure the Commission Into an Industry Association and a Voluntary Marketing Organization**. This alternative would be similar to what has been done with the Prairie and BC hog boards. The industry association component would provide industry services as described in the previous alternative. A second component would be for the Commission, with associated agencies, to provide marketing services to producers on a voluntary basis. Those producers that utilize the services of this unit would pay fees accordingly. All other producers would market their products as they see fit through agencies as defined above.

5.2.1 Evaluating the Alternatives

- **No change.** Our perception is that continuing on with the status quo leaves the industry with high costs, does not encourage differentiation and is not likely to achieve the policy objectives we have proposed. In order for the industry to move forward, there needs to be changes to the Vegetable Commission and its associated regulations.

- **Require the Commission to prove that its regulatory functions accomplish their objectives.** The benefit of this option is that it would provide the Commission, producers and the BC government with a precise accounting of the benefits (or costs) of the Commission. The downside to this alternative is that it would take time to conduct the study, thus taking longer to make the changes necessary to achieve an optimum structure.

- **Transform the Commission to an Association.** This option would reduce system costs by significantly reducing the regulation the industry is subject to. This would give producers and marketers greater ability to differentiate their product, and producers would also make their own decision about who to market

their product to. Under this option, the Commission would still be a third party providing a public good to the industry. The economies of having a single industry organization collecting, analyzing and distributing market information would be retained, and there are also likely some economies in doing joint promotions. The disadvantage to this option is that there will be producers who do not wish to market their product on their own.

- **Restructure the Commission Into an Industry Association and a Voluntary Marketing Organization.** This alternative has all of the same benefits of the previous alternative, but eliminates the disadvantage of producers who will not want to be left on their own to market their product. The voluntary marketing organization component of this alternative provides producers with marketing choice – they can either make use of the voluntary marketing arm, or market their product on their own. This option would provide the best of both worlds, while still accomplishing the structural change that is needed.

5.1.3 Reducing System Costs and Encouraging Differentiation

The structural changes discussed above are significant changes that are not likely to happen immediately. Until such structural changes can take place, there are some changes that can be made which would reduce the costs associated with the system and encourage product differentiation.

- **Revised Agency Licensing.** If an agency wants to operate, it should be allowed to, so long as it has the financial resources and business integrity to perform. This means changing the agency licensing requirements to require only these characteristics. The new entity would still need to be bonded and show good faith in past business practices. In that way, if a small group of producers want to cooperate in marketing a set of specialty products, then they can hire an agency, develop their own, or form an alliance with one. This change in agency licensing would encourage the formation of new agencies and competition between agencies for producers' business. Success in carrying out its business plan would then determine the long term viability of an agency, rather than regulation.

- **Development of Trace-back and IP Systems.** Finally, as with the supply management boards, a very useful function of the Commission would be to assist in developing and administering Identity Preservation and trace-back systems for producers who want to develop specialty products and would require such systems.