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Broilers and Eggs

Peter L. Arcus



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TECHNICAL REPORT NO. E/I 3

BROILERS AND EGGS

by

Peter L. Arcus



The findings of this Technical Report are the personal responsibility of the author, and, as such, have not been endorsed by members of the Economic Council of Canada.

Preface

This Technical Report was jointly sponsored by the Economic Council of Canada and The Institute for Research on Public Policy. It is one of a number of studies on regulation and government intervention in Canadian agriculture prepared for the Economic Council's Regulation Reference and the Institute for Research on Public Policy's Regulation and Government Intervention Program.

Analysis of public policy issues are inevitably coloured by the discussant's own beliefs and values. This is all the more likely in a highly controversial area such as agricultural policy, where quantitative information is incomplete and an important element of judgement is required to come to terms with many of the basic issues. This need not detract from the usefulness of the analysis, but it does require the reader to exercise particular caution in assessing the assumptions and the argumentation of those advocating a particular policy perspective. It also adds to the importance of the Council's usual disclaimer that "the findings ... are the personal responsibility of the author and, as such, have not been endorsed by members of the Economic Council of Canada." Similarly, "Conclusions or recommendations in The Institute's publications are solely those of the author, and should not be attributed to the Board of Directors, Council of Trustees, or contributors to The Institute."

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FOREWORD

This study is one of a series commissioned jointly by the Economic Council's Regulation Reference and the Institute for Research on Public Policy which deals with various aspects of agricultural regulation. These studies do not profess to cover the whole field of agricultural regulation but they do focus on several important areas of concern.

The following is a list (alphabetically by author) of agricultural studies expected to be published in this series:

- * Arcus, Peter L., Broilers and Eggs
- * Barichello, Richard R., The Economics of Canadian Dairy Industry Regulation
- Brinkman, George L., Farm Incomes in Canada
- Forbes, J.D., Institutions and Influence Groups in the Canadian Food Policy Process
- Forbes, J.D., D.R. Huges and T.K. Warley, Regulation and Government Intervention in Canadian Agriculture
- Gilson, J.C., Evolution of the Hog Marketing System in Canada
- Harvey, D.R., Government Intervention and Regulation in the Canadian Grains Industry
- Josling, Tim, Intervention and Regulation in Canadian Agriculture: A Comparison of Costs and Benefits among Sectors
- * Martin, Larry, Economic Intervention and Regulation in the Beef and Pork Sectors
- Prescott, D.M., The Role of Marketing Boards in the Processed Tomato and Asparagus Industries

* Already published

Preface

This study is one of several prepared as part of "A Study of Government Intervention and Regulation in Canadian Agriculture," undertaken by Broadwith Hughes and Associates Ltd. of Guelph, Ontario for the Economic Council of Canada, Ottawa.

The author is Dr. Peter L. Arcus, Consulting Economist of Vancouver, B.C. The study was conducted during the period January through April, 1980.

The author wishes to thank all those who contributed data to the analysis and those who provided comments-in-review of the drafts of this report.

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Résumé

Le présent rapport étudie les répercussions économiques de la réglementation canadienne du secteur des poulets à gril et des oeufs au Canada.

Nous savons, en effet, que la production et la mise en marché de ces produits sont réglementées par un ensemble d'offices de commercialisation provinciaux et d'organismes nationaux contrôlés par les producteurs. Le système est axé sur l'approvisionnement du marché intérieur, mais il existe aussi des contrôles dans toutes les provinces sur le prix que reçoivent les producteurs pour le poulet à gril, et un organisme national règle de façon semblable le prix des oeufs.

Le coût de la réglementation dans le sous-secteur de la production des oeufs a été évalué à environ 56 millions de dollars par année. Ce coût est principalement défrayé par le consommateur qui doit payer plus cher sa douzaine d'oeufs. Les bénéfices de la réglementation du marché se traduisent par un revenu annuel moyen d'environ 20 000 dollars par producteur d'oeufs.

Dans l'industrie du poulet à gril, le coût de la

réglementation a été évalué à environ 77 millions de dollars par année. Encore une fois, c'est le consommateur qui paie un prix plus élevé pour compenser ces coûts, et le producteur tire des bénéfices moyens de l'ordre de 30 000 dollars.

L'auteur conclut que le maintien des politiques actuelles de réglementation pour la production du poulet à grill et des oeufs au Canada entraînera une hausse continue des coûts pour le consommateur et une augmentation continue des bénéfices pour le producteur. Il recommande, à court terme, que la composition et les pouvoirs des organismes de surveillance fédéraux et provinciaux, ainsi que l'appui dont ils bénéficient, soient examinés de près. À long terme, il est d'avis que, dans la mesure jugée convenable, ces organismes devraient être rendus plus conformes à l'intérêt public, et que la possibilité d'utiliser d'autres moyens de fournir un soutien du revenu aux producteurs de poulets à grill et d'oeufs, tels que des paiements directs ou des versements de compensation, devrait faire l'objet d'études plus poussées.

Summary

This report examines the economic impact of regulation in the broiler chicken and egg sector in Canada.

The production and marketing of these commodities, effectively, is controlled by a system of producer controlled provincial marketing boards and national agencies. The main focus is on the supply of products to the domestic market but there are also controls on producer prices in all provinces, and nationally for eggs.

The cost of regulation in the egg sub-sector is estimated to be about \$56 million per year. This cost is paid largely by consumers through higher prices for table eggs. Producer benefits from market regulation in eggs are an annual average income of about \$20,000 per producer.

Regulation in the broiler industry is estimated to cost about \$77 million per annum. This amount is obtained through higher prices for broiler chickens to consumers. These costs generate benefits to producers of broilers in Canada of an average of about \$30,000 per producer nationwide.

The author concludes that continuation of existing policies for broiler and egg regulation in Canada implies increasing costs to consumers and increasing benefits to producers. He recommends that, in the short term, the composition, powers and support given to federal and provincial supervisory agencies for poultry and eggs should be reviewed and, to the extent it is thought appropriate, these bodies should be made more representative of the public interest in market regulation for the longer term, alternative means of providing income support to broiler and egg producers, such as by direct payments or deficiency payments, be more extensively explored.

Chapter I

INTRODUCTION

This report concerns the regulation of broiler chicken production and marketing and the regulation of egg production and marketing in Canada. The emphasis is on conditions existing at the beginning of the year 1980.

A brief statistical description of the broiler and egg industries is provided in Chapter II. Data relates to 1979 and details of production, international trade, industry size and number of persons involved are provided.

Chapter III discusses regulation in these two industries. The objectives of regulation are reviewed first. The framework for regulation is then introduced. Specific responsibilities for regulation are then identified. The actual regulations in effect at the beginning of 1980 are then described in detail. Tables describing the structure of production and marketing in each province and Canada are presented in the last section of this paper.

Chapter IV examines the economic impact of these regulations. The quota value is used as the main instrument of evaluation. The benefits of regulation to producers are examined first. Later, the impacts on allied industries and consumers are considered. Administrative and taxpayer costs, as well as direct costs and benefits are examined.

In Chapter V, an evaluation of the effects of regulation observed in Chapter IV is made. The criteria for this evaluation are the goals of regulation identified in Chapter III. Producer goals and government responses are focused on. A comparison is

also made to two other regulated industries. The evaluation includes consideration of the achievement of the goals of other parties to, or parties impacted by, the existing regulations.

In Chapter VI, consideration is turned to alternatives to the existing pattern of regulation for the broiler and egg industries. Attention is focused on the period 1980-1985. Eight policy alternatives are examined.

Chapter VII presents the conclusions of the study and Chapter VIII the recommendations. These two chapters together constitute the Executive Summary.

Numbers appearing in brackets in the script thus: (16), refer to references appearing in the list of references at the end of the report.

Chapter II

THE CANADIAN BROILER AND EGG INDUSTRIES

In this chapter, the main features of the broiler and egg production industries in Canada are described. The broiler industry is discussed first and then the egg industry. In both cases the industry is described in terms of the volume of production, the number of producers, the amount of international trade in the commodity, and the value of production and sales at different levels of the marketing chain. Reference is also made to the number of participants in allied industries, such as feed companies and hatcheries, poultry processors and egg grading stations.

Data is presented for the year 1979, the latest available. Data for previous years can be obtained from the references cited in the footnotes to the tables or by the procedures described in other footnotes.

BROILER INDUSTRY

In this section several aspects of the broiler industry are discussed. The first is production.

Broiler Production

As of February 1980 there were approximately 2300 broiler producers in Canada. These persons, or their predecessors, produced a total of 856 million pounds of broiler chicken in 1979. Details of the location of these producers and the amounts of their broiler production are presented in Table 1. Most of the broiler chicken production in Canada takes place in the Provinces of Ontario and Quebec, where between them, 68.7% of the volume was produced in 1979. British Columbia comes a distant third with a further 10.3% of production.

TABLE 1: Broiler Production in Canada, by Province

| | Number of <u>Producers</u> ¹ | Production 1979 ^a | | |
|----------------------|--|------------------------------|--------------------------|-----------------------------|
| | | <u>Birds</u> | <u>Lbs.</u> ² | <u>Percent</u> ³ |
| | | (000's) | | |
| British Columbia | 190 | 29,260 | 88,718 | 10.3 |
| Alberta | 160 | 25,937 | 68,869 | 8.0 |
| Saskatchewan | 60 | 6,498 | 17,804 | 2.1 |
| Manitoba | 120 | 11,012 | 32,518 | 3.8 |
| Ontario | 715 | 105,685 | 316,062 | 36.5 |
| Quebec | 925 | 85,249 | 278,630 | 32.2 |
| New Brunswick | 44 | 7,316 | 21,868 | 2.5 |
| Nova Scotia | 75 | 11,061 | 32,163 | 3.7 |
| Prince Edward Island | 1 | 2 949 | 8 679 | 1 0 |
| Newfoundland | <u>21</u> | <u> </u> | <u> </u> | <u> </u> |
| Canada | 2,311 | 284,967 | 856,311 | 100.0 |

Sources: Industry discussions and (1, p.8).

a. For previous years, see (2).

1. Regulated producers (except Newfoundland) February, 1980.

2. Eviscerated weight.

3. Of pounds.

Trade

The supply of broiler chicken to the Canadian market was supplemented by imports (mainly from the United States of America) of live chickens, carcass meat and chicken parts during 1979. The amounts of these imports are tabulated in Table 2. About 60% of the imports were in the form of live birds.

There was a small volume of exports of broilers, mainly in the form of carcass meat, during 1979. The net trade balance favoured imports in that year in a total amount of about 51 million pounds of eviscerated weight equivalent. This amount represents approximately 5.6% of supply or approximately 6% of production. With these net imports, the total supply of chicken in Canada for 1979 was 907.5 million pounds eviscerated weight.

EGG INDUSTRY

Production

Egg production in Canada totalled approximately 463 million dozen eggs in 1979. As of February 1980, there were approximately 2300 producers in the industry. Details of the amounts and location of production appear in Table 3. This table shows that Ontario has the largest single share of production with 905 producers producing 38.9% of the total production in 1979. Quebec has the next largest volume of production at 16.2%, followed by British Columbia at 12.7%, and Manitoba at 10.6% of production in 1979.

Trade

In 1979 there were no exports of eggs from Canada. There were, however, imports and details of these appear in Table 4. The amount of this international trade was 11.4 million dozen eggs or 2.4% of total supply. Most of these imports were delivered

TABLE 2: Canada: International Broiler Chicken Trade, 1979

| | <u>Exports</u> | <u>Imports</u> | <u>Net Imports</u> |
|-----------------------------------|------------------------|----------------|------------------------|
| | (000's lbs. Lwt.) | | |
| <u>Live Birds</u> | 55 | 40,030 | 39,975 |
| | (000's lbs. Evis. Wt.) | | |
| <u>Carcass Meat</u> | 365 | 12,960 | 12,595 |
| <u>Chicken Parts</u> ¹ | | | |
| Cut Up Whole Carcass | | 2,491 | 2,491 |
| Legs | | 1,761 | 1,761 |
| Breasts | | 2,873 | 2,873 |
| Other Portions | | <u>1,490</u> | <u>1,490</u> |
| Total Parts | | 8,614 | 8,614 |
| <u>Total Trade</u> ² | <u>420</u> | <u>51,597</u> | <u>51,190</u> |

Source: (1, p.10)

1. No exports reported.

2. Eviserated weight. Live bird trade converted to eviserated weight in ratio of 1.00 : 0.75.

TABLE 3: Egg Production in Canada, by Province

| | Number of <u>Producers</u> ¹ | <u>Production 1979</u> | |
|----------------------|--|----------------------------|-----------------------------|
| | | <u>Amount</u> ² | <u>Percent</u> ³ |
| | | (000's doz.) | |
| British Columbia | 192 | 58,653 | 12.7 |
| Alberta | 285 | 44,097 | 9.5 |
| Saskatchewan | 125 | 20,562 | 4.4 |
| Manitoba | 300 | 48,943 | 10.6 |
| Ontario | 905 | 180,204 | 38.9 |
| Quebec | 308 | 74,838 | 16.2 |
| New Brunswick | 42 | 8,900 | 1.9 |
| Nova Scotia | 53 | 16,801 | 3.6 |
| Prince Edward Island | 45 | 2,710 | 0.6 |
| Newfoundland | <u>38</u> | <u>7,146</u> | <u>1.5</u> |
| Canada | 2,293 | 462,854 | 100.0 |

Source: Industry discussions and (16, December 1979. Table 4, p.9).

1. Regulated producers. February 1980. Unregulated producers were estimated to number 7,995 in 1977/78. (4, 1977/78, Table 5A, p.12.) None of these producers had more than 500 layers.
2. Includes hatching eggs.
3. For previous years see (17).

TABLE 4: Egg Production, Imports and Supply in Canada, 1979

| | <u>Production</u> | <u>Imports</u> ¹ (000's dozen) | <u>Supply</u> |
|----------------------|-------------------|--|---------------|
| British Columbia | 58,653 | 213 | 58,866 |
| Alberta | 44,097 | 86 | 44,183 |
| Saskatchewan | 20,562 | - | 20,562 |
| Manitoba | 48,943 | 468 | 49,411 |
| Ontario | 180,204 | 8,385 | 188,589 |
| Quebec | 74,838 | 1,605 | 76,443 |
| New Brunswick | 8,900 | 486 | 9,386 |
| Nova Scotia | 16,801 | 158 | 16,959 |
| Prince Edward Island | 2,701 | - | 2,701 |
| Newfoundland | <u>7,146</u> | <u>23</u> | <u>7,169</u> |
| Canada | 462,854 | 11,424 | 474,278 |

Sources: Table 3 and (1, p.3).

¹. International Trade. No exports in 1979. Data converted from boxes to dozens.

to the Province of Ontario (73%) with Quebec receiving the next largest quantity (14%).

The total supply of eggs in Canada for 1979 was 474 million dozen eggs and the division of this supply between the ten Provinces is indicated in Column 3 of Table 4. Ontario has the greatest total supply of any of the Provinces.

ALLIED INDUSTRIES

In addition to the approximately 4600 producers of broilers and eggs in Canada, there are a large number of businesses affiliated with these two production activities. Amongst those supplying broiler and egg producers, are hatcheries, feed manufacturers, feed supplement suppliers and drug suppliers. A listing of the numbers of these types of firms supplying material and services to broiler and egg producers in each of the Provinces, appears in the first part of Table 5. A total of 143 hatcheries, 133 feed manufacturers, 91 feed supplement suppliers, and 73 drug suppliers; 440 suppliers in total, depend in part or completely on the broiler and egg industries for their business.

In addition to the suppliers listed in Table 5, there are other suppliers. These include banks and finance companies who provide debt capital to production units, and Federal and Provincial Ministries of Agriculture who provide research and extension services to the producers in these industries.

Beyond the farm gate, there are a number of people involved in handling broilers and eggs before they reach the consumers. In the case of broilers, there are the poultry processors and these numbered 207 in Canada in 1979. The distribution of these processing plants by province is displayed in the second part of Table 5. Most of the processors are, as would be expected,

TABLE 5: Canada: Brouler and Egg Industries: Suppliers, Processors and Consumers. By Province, 1979.

| Item | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|---|-------|-------|------|-------|------------------------------------|-------|-----|-----|-----|------|--------|
| <u>Suppliers</u> | | | | | (Numbers of persons ¹) | | | | | | |
| Hatcheries | 10 | 15 | 14 | 21 | 44 | 24 | 4 | 8 | 3 | | 143 |
| Feed Manufacturers | 18 | 20 | 13 | 17 | 44 | 11 | 5 | 3 | | 2 | 133 |
| Feed Supplement Suppliers | 11 | 14 | 4 | 7 | 32 | 19 | 1 | 3 | | | 91 |
| Drug Suppliers | 8 | 13 | 2 | 9 | 20 | 18 | 1 | 2 | | | 73 |
| Total | 47 | 62 | 33 | 54 | 140 | 72 | 11 | 16 | 3 | 2 | 440 |
| <u>Processors</u> | | | | | | | | | | | |
| <u>Poultry Meats</u> | | | | | | | | | | | |
| HOA Inspected | 9 | 8 | 4 | 10 | 22 | 26 | 2 | 2 | 2 | 2 | 87 |
| Other | 8 | | | 55 | 26 | 11 | | 1 | 10 | | 111 |
| Producer Graders | 4 | | | 1 | | 3 | 1 | | | | 9 |
| Total | 21 | 8 | 4 | 66 | 48 | 40 | 3 | 3 | 12 | 2 | 207 |
| <u>Eggs</u> | | | | | | | | | | | |
| Egg Grading and/or Egg Packing Stations | 23 | 25 | 45 | 52 | 122 | 124 | 20 | 31 | 21 | 29 | 492 |
| Egg Product Processors | 3 | 1 | | 2 | 8 | 3 | | | | | 17 |
| Total | 26 | 26 | 45 | 54 | 130 | 127 | 20 | 31 | 21 | 29 | 509 |
| <u>Consumers</u> | | | | | | | | | | | |
| Population (000's) | 2,567 | 2,009 | 957 | 1,031 | 8,500 | 6,299 | 701 | 847 | 123 | 574 | 23,618 |

Sources: Derived from (7) and (14).

1. Legal persons: May be individuals, partnerships or corporations.

located close to production, the majority of which is in Ontario and Quebec.

Most eggs are handled through egg grading stations. There, eggs are washed, graded and packed ready for retail sale. The total number of firms operating in this aspect of the egg industry in 1979 was 492. In addition to these persons, there are a number of egg product processors (sometimes referred to as "breakers") who prepare processed egg products: liquid, dried, or frozen egg products, from shell eggs. The total number of these persons in Canada in 1979 was 17. The distribution of egg grading stations and egg product processors by Province, is displayed in the third part of Table 5. Again, the majority is in Ontario and Quebec.

At the end of the production and marketing chain, there are some 23.6 million Canadian consumers. The distribution of these persons by Province is shown at the bottom of Table 5.

Because the supplies of eggs do not exactly match the demands for eggs from consumers by province, there is some movement of eggs between Provinces. The main flows are from Manitoba to Ontario, and from Ontario to Quebec. There are smaller flows from Saskatchewan to Alberta, Quebec to Ontario, and from Nova Scotia to New Brunswick, P.E.I., and Newfoundland (4, 5). The amount of this inter-provincial movement in eggs is estimated to be about 10% of total supply.

The consumption of chicken in Canada, based on the supplies described above and the number of consumers listed in Table 5, was an average 38.4 pounds (eviscerated weight) per capita in 1979. This amount has been increasing steadily (4, 1977/78, Table 6, Col.4) and has risen by approximately 10 pounds per

capita since 1969. Egg consumption in 1979, similarly calculated, was 20.08 dozen per capita in 1979. Egg consumption per capita in Canada has declined from 1957 to 1978 (4, 1977/78, Table 6, Col.2; and 17). The data for 1979 tends to suggest that this trend may be reversing itself at the present time.

ECONOMIC ACTIVITY

Broiler Industry

The Canadian broiler industry had an estimated value of sales at retail of just short of \$1 billion in 1979. The total value of retail sales (consumption) from Canadian production is estimated to have been \$914 million in 1979, and to this is added a further \$46 million worth of imported product sales. This gives a total of \$960 million of sales at the retail level.

The farm value of domestic production of broiler meat in Canada is estimated to have been \$460 million in 1979. Table 6 gives details. The marketing margin in broiler meats is approximately equal to the value of production, and for 1979 is estimated to have been approximately \$454 million.

Only approximately 25% of the value of broiler production stays on the farm as rewards to farm factors of production. The other 75% is paid out for the purchase of inputs; chicks, feed and labour. The total amount of these expenditures for 1979 in the broiler industry is estimated to have been \$345 million.

These values for consumption, production, marketing margin and purchased inputs in the broiler industry are all substantial numbers. A large number of people are involved in each of the provinces in both the industry, and in allied trades on each side of the farm production of broiler chickens. The distribution of the Canadian values of consumption, production, marketing margin and purchased inputs reported above, by province

TABLE 6: Canada: Broiler Industry: Value at Producers' Purchases, and Values of Production, Marketing Margin and Consumption. 1979^a.

| | <u>Purchased Inputs¹</u> | <u>Production²</u> | <u>Marketing Margin</u> | <u>Consumption²</u> |
|---------------|---|-------------------------------|-----------------------------|--------------------------------|
| | (\$ 000's) | | | |
| B.C. | 35,931 | 47,908 | 55,005 | 102,913 |
| Alberta | 27,892 | 37,189 | 42,699 | 79,888 |
| Saskatchewan | 7,211 | 9,614 | 11,038 | 20,653 |
| Manitoba | 13,170 | 17,560 | 15,934 | 33,494 |
| Ontario | 128,005 | 170,673 | 154,870 | 325,544 |
| Quebec | 108,666 | 144,888 | 142,101 | 286,989 |
| New Brunswick | 8,529 | 11,371 | 11,153 | 22,524 |
| Nova Scotia | 12,544 | 16,725 | 16,403 | 33,128 |
| P.E.I.) | 3 385 | 4 513 | 4 426 | 8 939 |
| Newfoundland) | | | | |
| Canada | <u>345,333</u> | <u>460,442</u> | <u>453,629</u> | <u>914,072</u> |

a. Excludes value of marketing margin and consumption of imported product, for which see text.

1. Based on 75 per cent of value of production (Col. 2) being paid out for chick, feed and labour.

2. Production from Table 1, valued at the annual average price producer price for production, retail price for consumption in Vancouver, for B.C., Alberta and Saskatchewan; in Toronto for Manitoba and Ontario; in Montreal for Eastern Canada, as reported in (3).

is displayed in Table 6. The Provinces of Ontario, Quebec and British Columbia are the major beneficiaries of this economic activity.

Egg Industry

The aggregate values of retail sales, production, marketing, and inputs purchased for the egg industry, are presented in Table 7.

The value of retail sales of eggs (consumption) is estimated to have been about \$448 million in 1979. Of this amount, approximately 76% or \$342 million was paid to producers for their part in producing the eggs. The marketing margin is estimated to have been approximately \$107 million. The total amount retained by producers as rewards for their on-farm resources is about 25% of total receipts. Thus, approximately \$256 million were paid out by egg producers in 1979 for the purchase of pullets, feed and labour.

The distribution of each of these Canadian total amounts by province can be observed by inspection of Table 7. Ontario, Quebec and British Columbia are again the major beneficiaries of this economic activity but Manitoba and Alberta are more significant in the egg industry than in the broiler industry.

The value of the broiler and egg industries taken together is approximately \$1400 million in retail sales. This is approximately 7.2% of retail food store sales in 1979 (18). At the production level, the total value of production is approximately \$800 million. This is an estimated 5.7% of all farm production in Canada as measured by farm cash receipts for 1979 (13).

Further details on the structure of the broiler and egg

TABLE 7: Canada. Egg Industry. Value of Egg Producers' Purchases and Value of Production, Marketing Margin and Consumption, 1979

| | <u>Purchased Inputs¹</u> | <u>Production²</u> | <u>Marketing Margin³</u> | <u>Consumption⁴</u> |
|----------------------|---|-------------------------------|---|--------------------------------|
| | (\$000's) | | | |
| British Columbia | 33,698 | 44,930 | 13,936 | 58,866 |
| Alberta | 23,615 | 31,486 | 12,697 | 44,183 |
| Saskatchewan | 9,877 | 13,169 | 7,393 | 20,562 |
| Manitoba | 24,008 | 32,010 | 12,460 | 44,470 |
| Ontario | 98,576 | 131,435 | 38,295 | 169,730 |
| Quebec | 44,688 | 59,584 | 15,330 | 74,914 |
| New Brunswick | 5,513 | 7,351 | 1,847 | 9,198 |
| Nova Scotia | 10,132 | 13,509 | 3,111 | 16,620 |
| Prince Edward Island | 1,557 | 2,076 | 571 | 2,647 |
| Newfoundland | <u>4,609</u> | <u>6,146</u> | <u>880</u> | <u>7,026</u> |
| Canada | 256,272 | 341,696 | 106,521 | 448,216 |

1. Based on 75 percent of farm cash receipts (Col. 2) being paid out for pullets, feed and labour.
2. Farm Cash Receipts. (13, December 1979. Newfoundland estimate based on production (Table 3) and 52 week cumulative all grades weighted price to producers as reported by Agriculture Canada, (1, p.4).
3. Col. 4 minus Col. 2.
4. Supply, from Table 4 assumed consumed in same province, at 1979 annual average retail prices for grade "A" medium eggs in Vancouver for B.C., Alberta and Saskatchewan, Toronto for Ontario and Manitoba, Montreal for eastern Canada. (3).

industries (particularly production) is reported in Chapter III which follows. This chapter covers the regulation of each of these two industries as it occurs under a number of provincial and federal statutes and regulations.

Chapter III

REGULATION

Both the broiler and egg industries in Canada are extensively regulated by both federal and provincial statutes and regulations pursuant to those statutes. In this chapter, the objectives of this regulation are addressed first. Subsequently, the general pattern of regulation is described and the regulatory responsibilities noted. Finally, at the end of the chapter, the regulations currently in effect in each of the two industries are reported.

OBJECTIVES

At first glance it might appear that the regulatory process itself attempts to attain certain goals. However on closer examination we find that it is not the process of regulation which has goals but rather the people involved in making the regulations who have goals. Thus, the discussion of objectives is more nearly one of an examination of the process by which regulations come into being and the goals of the persons and groups who are parties to the formulation of regulations.

The Process

The process of economic regulation generally begins with a real or perceived decline in incomes received by a group of producers. In both the broiler and egg cases, the initial problem was one of a decline in gross income arising from decline in prices. The decline in price was generated in part by changes in technology and in part by cyclical fluctuation in the market due to the biological nature of production and atomistic competition amongst producers in these two industries prior to regulation. The process of regulation thus begins with an appeal by the group of producers for some compensation for income loss.

The appeal can take one of many focuses. The target in the broiler and the egg cases was price itself. Other targets are control of quantity (either production or imports or both), interprovincial trade, income supplements, restrictive grading and other non-trade barriers including quality control.

This appeal for benefits is directed to somebody having the power to respond. Generally this is either a provincial government or the federal government. The ability of government to respond is represented by the legislature's willingness and ability to pass legislation and, pursuant to legislation, regulations which will address the grievance of the proponent group. However, the legislators are by no means required to respond to the applicants. Whether or not they choose to do so depends on their goals and whether these can be achieved by acting in the manner requested. The response of the legislators will depend on a number of factors not the least of which is whether they perceive the desired changes as contributing to their likelihood of being reelected.

We thus observe that objectives, in the regulatory process, are those of the participants in the regulatory process, and, that the primary groups are the applicants or proponent group and the legislators.

In addition to the proponents and the legislators there are usually other participants in the process, although their interest might well come later. These include the consumers, tax payers, farm product processors, distributors, wholesalers and retailers and the persons charged with implementation and supervision of any legislation and regulations passed pursuant to request by producers to establish a program of benefits. The interests of these groups is generally self-interest although from time to time there are coalitions of interest.

The objectives of each of the participants change over time. These changes tend to emphasize the evolutionary nature of the regulatory process and, as will be noted below, give rise to changes in the emphasis given by both proponents and opponents in the initial applications for benefits and the subsequent responses of governments.

It is typical of the evolutionary process in regulation that the competition which gives rise to the disadvantages originally claimed or perceived by the applicant group, does not go away as regulations are formed to deal with them. Rather it just relocates. The general pattern of this relocation of competition is illustrated by the sequence of developments in egg marketing over the last twenty years.

Initially, in the early sixties, there was no regulation in egg marketing in Canada. Then, as the technology of controlled lighting and closed barns provided an opportunity of year-round production, supplies increased and prices declined. Competition between individual producers was intense. Those who were financially weak were forced out of the industry. Those remaining in it grew larger. Dissatisfaction with this kind of competition gave rise to the initial application for marketing board regulations at the provincial level. After some time, a measure of price and quantity stability was achieved by this means and there was general satisfaction amongst producers within a province. However the competition relocated to appear in inter-provincial trade. Under provincial legislation, control of production and marketing was achieved within a province but there was no provision for the control of imports received from other provinces or exports made to other provinces. This problem, combined with large grain supplies in the prairies in the late sixties, led to intensified competition in inter-provincial trade, a condition commonly referred to as the "chicken and egg war"

of that period. This situation gave rise to a second application for regulation, this time at the federal level. Skogstad (11) describes the application and response in detail.

The Farm Products Marketing Agencies Act of the federal government passed in January 1972 was the legislators response to this application. Pursuant to this Act, a Canadian Egg Marketing Agency (CEMA) was established. This Agency was authorized to regulate inter-provincial marketing of the eggs. Later control was extended to include regulation of quantities of eggs produced in Canada as well as price and inter-provincial movements. After some period of experimentation, control of egg prices and production was effectively achieved in Canada in 1976.

The competition then relocated to appear in international trade in eggs. The focus of this concern became the application by CEMA for first receivership of all imported eggs. To date this application has been refused. However, pursuant to a provision of the General Agreement on Tariffs and Trade (GATT), the Government of Canada has agreed to establish import quotas for eggs and to require special applications for supplementary quotas for imports in excess of a basic amount.

Now there is competition between the table egg market and the breaker egg market. As well, there is competition between eggs and substitute products such as pork and chicken. The competition between the table egg and breaker egg markets has been partially regulated by CEMA through its control of supplies of eggs to the breaker market, but the competition between eggs and other commodities remains.

Further, it is noted that the reduction in competition between producers achieved to date is, in part, illusory. Only if producers remain content with their initial quota allocation is the competition between them eliminated. When production conditions change, or when producers want to change the amount of their

production, they must compete amongst themselves for any increase in market share which they then require. This competition shows in the price of quotas traded between producers within a province and in the competition for provincial market shares of the national quota, when discussion of the latter takes place within CEMA.

This brief review of the pattern development of regulation in egg markets in Canada emphasizes both the evolutionary nature of market regulation and the shifting of objectives of the participants over time. We now turn to a detailed examination of the types and nature of goals adopted by the various participants in this process from time to time. We deal first with the producer goals and objectives, then with the government goals and objectives. In a third section we deal with the goals and objectives of other participants.

Goals of the Applicant Group

The applicants in this case are the producers of broilers and eggs in Canada. Historically, the applicants have espoused some or all of the following goals.

- Higher Prices
- Increased income
- Price stability
- Maintenance of the family farm
- Control (prohibition) of integration
 - On farms (horizontal integration)
 - In the industry (vertical integration)
- Domestic self-sufficiency in food supply
- Redistribution of income amongst producers
- Reduction of uncertainty
- Producer control of marketing
- Equity of access to the available market
- Democratic process (amongst producers) in the formation and enforcement of regulations
- Equity of return to resources
- A balance of power between producers and those to whom they sell and from whom they buy.

The order of priority amongst these goals varies with the circumstances of the producers and the stage of the evolution in the regulatory process. To a certain extent, however, the first two reasons, namely higher prices and increased income subsume all the others. Economic regulation is sought by producers primarily to increase incomes for the majority of the applicant group. The other goals listed above may merely be reasons for and/or supporting mechanisms for the attainment of this goal. Some discussion of each goal follows.

Increased income as noted above is almost always a goal of economic regulation in agriculture. The cases of broilers and eggs is no exception. Increased income can be generated in a number of ways. The most obvious is an increase in price. Other ways include increased sales (by way of market promotion, export development, or new products), cost reduction(s), and improved technological efficiency in production. A regulatory response to any one of these factors will have the desired effect. The pattern to date has been to focus primarily on price and secondarily on quantity. In respect to the latter it is noted that the approach has not been one of increased sales but rather one of regulating quantities reaching the market in order to maintain a particular price.

Lack of price stability is frequently a motivating factor for regulation. Broiler and egg markets are no exception. Demand for these products, particularly eggs, tends to be inelastic and increasing only slowly over time. Consequently, small swings in available supply give rise to sharp swings in price. When these swings are downward, the income lost is greater than any increase in sales. Increases in price are then demanded by producers to reverse this effect. Because the level at which prices are stabilized is important, and because the pressure on prices is upward in pursuing this goal, it can, and frequently does result in a (de facto) income increase.

Protection of the family farm is another common goal of broiler and egg producers. As a protective or defensive interest it has obvious benefits for those already in the industry and probably appears for this reason. To the extent it can be used to generate prices and incomes which support the family size farm units it also protects these units from horizontal and vertical integration as well as bankruptcy. It is not obvious, although it is frequently claimed to be so, that family farms are more efficient production units than other sizes and types of farm structures. There is a strong appeal in this goal to a broad social interest which can be readily identified by the consumers and politicians as well as others. These people are all members of families themselves and understand the necessity for adequate family incomes.

Prevention of integration is another producer goal. Two types of integration are identified. These are: horizontal integration and vertical integration. Horizontal integration takes place when one producer buys out another producer. In this case the **one** producer gets larger and the other one ceases to participate in the industry. This is thought to be undesirable when producer unit sizes exceed those which can be managed by family size farm management and labour units. There is thus an appeal from this particular goal to the family farm goal.

The second type of integration which is considered undesirable is vertical integration. This is the condition existing when production units are purchased and operated by some element of the marketing chain (handling the product or supplying materials (such as feed) to the production unit) other than producers. This condition is commonly regarded as undesirable mainly because it places people who would otherwise be independent farmers in the position of plant manager or plant labourer. These types of employment, while possibly equally or

more lucrative, are considered undesirable by groups of small independent farm businessmen. The advantage of vertical integration in providing working or fixed capital for production units is overlooked in this argument.

Encouragement of domestic self-sufficiency in food supply is another goal which, at times, is stated by producers. The argument is that, without domestic supplies available, the consuming public is left at the mercy of the international market and foreign supplies which may be the subject of temporary or permanent cut-offs and over which Canadian consumers have no control in respect to price. This particular argument ignores the substitutability of foods one for another and, in respect to any one commodity, is therefore a rather limited argument. Taken in respect of all foods the argument is somewhat stronger as it is to the "all-food" level of decision-making, namely provincial and federal ministries of agriculture that this appeal is most likely to be made and probably most likely to succeed. The argument overlooks the cost factor associated with any particular degree of self-sufficiency. This is, or will become, a factor in policy-making.

Redistribution of income amongst producers is another, sometimes stated, goal of producers. This goal is very much secondary to that of increasing income of producers. It arises as an adjunct to the goal of equal access to the marketplace for all producers (see below). The argument seems to be that, in a limited market for the commodity where competition between producers (and would-be producers) is eliminated, all of those who get to participate should in some sense be treated equally. Pursuit of the equal access goal then leads to income redistribution. In some respects this redistribution of income is more likely an outcome of the regulatory process than in fact the goal.

Reduction of uncertainty is a general goal of producers of all agricultural commodities. Due to the biological nature of production, long planning times generally involved in production, uncertainty with respect to the market and its returns is common. Reduction in this uncertainty by way of price stability, stable marketing systems, stabilization of pricing procedures if not prices themselves, and rigidity in the allocation of market access all contribute to the reduction of uncertainty in regulated markets. This reduction of uncertainty creates benefits to producers by allowing them to commit, for example, to building and production expansions with a reasonable expectation of profit.

Producer control is a definite and distinct goal of producers in the regulatory process. The number of producers of agricultural commodities, including producers of broilers and eggs, generally outweigh the numbers of processors and distributors to whom the product is sold and also the number of firms and businesses from whom producers buy materials. This situation tends to allow conditions of oligopoly pricing in the sales of materials to the farmers and oligopsonistic pricing on the part of those buyers purchasing broilers and eggs from farmers. Such conditions can give rise to excessive profits on the part of both suppliers and buyers and the fear of this condition generates a desire in producers to control their own destiny with respect to these two aspects of their businesses. Furthermore an appeal to democratic procedures can be made in circumstances where producers are allowed to elect their own control boards. This procedure allows producers to determine from amongst their own number those whom they think set appropriate policies for the industry. This is preferred by producers over alternatives where the regulators are appointed by government or determined in some other way.

Finally equity in access to available markets is a concern of producing groups. Again this goal ties in with the

goal of democratic process, equal rights for the small producer as well as the large producer: equal rights for all producers regardless of size. This goal counters the condition ordinarily encountered in markets where larger producers are frequently able to achieve preferred positions in the marketing of their products, in purchasing supplies and in financing.

We thus see that producers have a number of goals. The exact mix of emphasis on each varies with the stage of regulation reached for the commodity. We now turn to consideration of the goals of the respondents to these requests for regulation: governments.

Goals of the Government

The first goal of any government is to get reelected. Pursuit of this goal in respect of any policy question placed before it leads to decisions which will favour the applicant group provided that the conferring of the benefit upon this group is not of such order of magnitude as to upset or substantially disadvantage some other group or groups in society. In other words there is a tendency inherent in the system for the government to respond favourably to the applicants. This goal amongst respondees to regulation applications is probably universal. Some of the other goals of respondees listed below may vary according to party affiliation or philosophy of the government responding to the application.

One subsidiary goal of governments, at least historically, in respect of broiler and egg market regulations in Canada, has been the minimization of treasury cost. This is witnessed by the fact that marketing boards do not draw on the federal or provincial treasuries for the cost of their operations or the cost of any additional returns to producers which may be

generated as a consequence of board actions. These come from the market place and are contributed by consumers and other non-producer members of the production and marketing system. The funds in the provincial and federal treasuries are thus left largely untouched by this regulatory system and are therefore available for other government programs and policies.

A second subsidiary goal of governments may be that of avoiding a bureaucracy in respect of market regulation for agricultural products. Producer marketing boards are elected by producers and are paid by producers. They are generally small in number, three to five members, and the cost to the government of maintaining and operating these boards is generally nothing. The only government involvement in the regulatory process in the producer marketing board system is the provision of a supervisory board of some kind in each province and a national super-board (the National Farm Products Marketing Council) at the federal level. These boards are, in many provinces, part time operations and do not represent any substantial drain on provincial treasuries or any great amount of bureaucracy.

These two subsidiary goals above suggest the existence of another goal. This is a goal of minimum intervention by the state in the marketing process for agricultural commodities. Farmers operations are frequently perceived as one of the last bastions of private enterprise and independent businessmen. It is possible for governments to support these beliefs while at the same time providing the regulation requested when producer marketing boards are used as the means of regulation.

There can also be an appeal to the democratic process in the response of government to producer applications for regulation. The government itself is elected by democratic process and the election of a producer marketing board by the same process can be appealing to some members of the government.

The question of self-sufficiency in food supplies has been mentioned as a possible producer goal and is again mentioned here as a possible goal of government. The goal is one more nearly applicable to food supplies in general, for which a government is generally perceived to have overall responsibility, rather than for specific commodities. However, without some attention to specific commodities the overall goal obviously cannot be attained. Thus the appeal can be effective.

Finally, we mention the desire on the part of some governments, and particularly ministers of agriculture, to minimize the number of occasions on which the applicants return to the government for further assistance. This goal can be, and has been, achieved by passing enabling legislation under which marketing boards can be set up for producers and then left pretty much alone. This process minimizes the number of times upon which the minister or the Ministry of Agriculture has to deal with questions of marketing of agricultural commodities. This frees the minister and the ministries for other work and the pursuit of other government goals in agricultural and the country at large.

These goals of government appear from an analysis of the history of marketing boards to date. They may or may not continue to be goals of governments in the future. The evolutionary process in market regulation applies equally to the respondents as to the applicants.

Goals of Other Participants

Other participants in the regulatory system include food processors, distributors, wholesalers, retailers, food consumers, market regulators, (mostly super-boards), individual ministers of agriculture, members of the ministries of agriculture's staff, and the members of the individual producer marketing

boards. Ministers and ministries of agriculture generally have as one of their goals the satisfaction of producer interest. This can be best achieved by a system which works smoothly with a minimum of intervention on the part of these two parties. The food system beyond the farm gate, represented by processors, wholesalers, retailers, while not generally being particularly enamoured of marketing boards, have nevertheless developed a tolerance for them over time and now exhibit goals which are mainly concerned with equity of treatment amongst themselves by marketing boards so that no particular advantage accrues to anyone of them as a consequence of the trading patterns which evolve.

Consumers on the other hand are generally antagonistic to producer marketing boards for the good, sufficient and obvious reason that any benefits which producer marketing boards gain are paid for directly by consumers. Consumer goals tend to focus on the minimization of consumer costs of benefits accruing to producers from the operations of market regulations by boards. Nevertheless, it is sometimes allowed by organized consumer groups that some test of reasonableness should be applied. It has been said that it is not the intention of consumer groups to eliminate farmers, it is only the intent to see that the benefits conferred are reasonable. The problem lies with what is a suitable and workable definition of "reasonable".

Consumers are also concerned about the way transfers between groups in society are made. In the broiler and egg marketing cases, part of this concern is with the regressive structure of the transfers from consumers to producers, i.e., when the benefit is assembled and distributed on a per unit of product basis, consumers whose incomes are lowest contribute proportionally more to the transfer than those with high incomes. This is considered undesirable.

These, then, are some of the objectives of the various people involved in regulated marketing in respect of broilers and eggs. We now turn to a detailed examination of the structure and conduct of regulation for broilers and eggs in Canada.

STRUCTURE

In this section the general structure of broiler and egg production and marketing regulations are described. The pattern of regulatory control is such that the broad perspectives for both industries can be described under one heading.

The fundamental regulatory mechanisms for both industries are a provincial Marketing Act in each of the provinces, and a federal Marketing Act. The names of the provincial marketing acts vary by province. Examples include the following: the Farm Products Marketing Act, Natural Products Marketing Act, or Agricultural Products Marketing Act. The federal marketing act is the Farm Products Marketing Agency's Act. (See Appendix A for details of these and other regulatory authorities).

Under each of the provincial acts, marketing schemes or plans, and marketing boards for specific agricultural and natural products may be authorized. Generally the procedure requires that a plebiscite of producers be conducted, and when this is favourable to market regulation, a marketing scheme and a marketing board for that commodity is established by order in council of the legislature of the province. Generally the schemes establish a producer-controlled marketing board with powers to regulate the quantity (supply) of a particular commodity which can be marketed in that province and to establish prices at which producers will be paid for the regulated volume of product. Producers are generally elected to membership on the commodity marketing board although there have been the occasional instances of appointments to these boards by a provincial Minister of Agriculture.

In addition to having the authority of the legislature delegated to them to control quantity and price, marketing boards in the provinces also usually enjoy powers to license (and not to license) individuals as producers. This authority allows a marketing board to restrict both vertical and horizontal integration in the production sector.

The powers of the provincial legislatures to regulate marketing in this fashion are generally considered to derive from Section 92 (16) of the British North America Act. This section of the B.N.A. Act defines the provincial domain to include all matters of an essentially local nature. Production and marketing within a Province are generally considered to fit within this category. However, not included within this category is any inter-provincial trade. This area of jurisdiction is reserved for the federal government pursuant to Section 91(2) of the same Act. Accordingly, when provincial marketing boards seek to control the movement of the commodities across provincial boundaries, and in particular to restrict imports into a province, the Supreme Court of Canada has determined that this is beyond a provincial government's competence. Thus, a federal act, to provide for regulation of inter-provincial trade has been necessary. This act is the Farm Products Marketing Agencies Act.

Under the Farm Products Marketing Agency's Act, national commodity marketing agencies may be established. For poultry and poultry products, these agencies may control inter-provincial and export trade and prices. At the present time, there are national agencies for broiler chickens, shell eggs, and turkeys. The broiler agency is known as the Canadian Chicken Marketing Agency, and the egg agency is called the Canadian Egg Marketing Agency.

There are certain rules in the legislation about the composition of the membership of these agencies and the functions

which they can undertake. One of the main restrictions is that a majority of the members of a marketing agency shall be primary producers. This means that national agencies are controlled by producers in a similar fashion to the provincial marketing boards.

Because of the jurisdictional split in legislative authority between the provinces and the federal government, neither of these parties has complete control over the marketing of any one agricultural commodity in Canada. The provinces have, or at least claim to have, complete control of intra-provincial marketing, while the federal government clearly has control over inter-provincial trade and international trade. Thus, in order for a regulatory mechanism to work in Canada, it has been necessary for the provinces and the federal government to cooperate. This is done by way of agreements between the Provinces and the Federal Government in which the powers of the two parties are aggregated to create the necessary working mechanism. These agreements involve a concept of parallelism wherein the provinces and the federal government each contribute their powers of regulation to a national marketing plan. Under the agreement, each of the parties agrees to implement regulations as required, to support a concept of national supply management and, in the case of eggs only, a national pricing policy. References to the agreements for the national plans for broilers and eggs can be found at the end of Appendix A.

Supervision of these marketing schemes is provided for in both the provincial and the federal acts. At the provincial level, there is generally a body known as the Provincial Marketing Board, Provincial Marketing Council, or Farm Products Marketing Council. These bodies are frequently called "provincial super-boards". These "super-boards" are both super in respect of being

above the provincial commodity marketing boards, and super in the sense of providing supervision of those boards. Membership of the "super-boards" is by appointment of the Lieutenant Governor in Council in each of the provinces,

At the national level, the supervisory body is the National Farm Products Marketing Council. Membership in this body is by appointment of the Governor in Council of Canada. However, there is a legislative restriction on the composition of this Council. In this case, at least 50% of the members of the Council must be primary producers. As well, the Governor in Council is constrained by the legislation to "try to appoint one-third of the members of the Council from the four Western Provinces, one-third from the two Central Provinces, and one-third from the four Atlantic Provinces".

In some provinces, the control over commodity marketing boards is quite rigid in the sense that the power flows through the super-board to the Commodity Boards. Alberta and Ontario would be examples of this type of supervision. In other cases, the super-board is somewhat more to the side in that the power in these cases flows directly from the Lt. Governor in Council, through the marketing scheme, to the commodity marketing board, with the super-board only being in the position of review and recommendation. This is the case in British Columbia and some other provinces.

The process of supply management of broilers and eggs is further assisted by the existence of certain clauses in the international General Agreement on Tariffs and Trade. Under this agreement, to which Canada is a party, any country which operates a program of domestic supply management may restrict the importation of the same class of product from another country to the

level of the previous five years average. This power has been deployed in the cases of both broilers and eggs in Canada.

Imports are thus generally restricted to the five-year average amount, (although supplementary import permits may be allowed under extenuating circumstances).

Returns to Canadian producers of these broilers and eggs are also influenced by the existence of a customs tariff on these products coming into Canada. This fact does not so much limit the quantity of product coming into the country but more nearly affects the prices which can be charged for products within Canada. The amounts of the currently existing tariffs on broilers and eggs are quite modest in per unit terms, although the affect of them in the aggregate can be quite significant. Live chicken attracts a tariff of two cents per pound in most cases, and between five and ten cents per pound when imported on an eviscerated weight basis. Shell eggs attract a three and one-half cent tariff when coming from a most favoured nation (MFN) category country. Details of these and other customs tariffs appear in Appendix B.

REGULATORY RESPONSIBILITIES

In the broadest terms, regulatory responsibility lies with the federal government for inter-provincial trade and international trade in the marketing of broilers and eggs and with the provincial governments for intra-provincial trade in these commodities. This means that the provinces are responsible for the initial legislation covering regulation within a province and for the appointments to, and the operations of provincial super-boards and for the powers conferred upon producer marketing boards for these commodities in each province. In each case, the powers conferred on the Commodity Boards are powers delegated and the Lieutenant Governor in Council is responsible for any and all consequences of this delegation of power.

The Federal Government is responsible for the Farm Products Marketing Agency's Act and for appointments to the National Farm Products Marketing Council. It is also responsible for the powers over inter-provincial and international trade accorded to the national agencies in terms of the proclamations establishing those agencies. Both the federal and provincial governments are responsible, together with their respective super-boards and the producers, as represented through their commodity boards and agencies, for the national marketing plans for broilers and eggs. In these plans, the powers of all parties are brought together and each is responsible for their part as a signatory to these agreements.

The responsibility of all participants in the present regulatory program is to all of the people in each of the provinces, in the case of provincial authorities and governments, and to all the people in Canada, in the case of the federal authority. The process of regulation as described above, has been and continues to be one of evolution and of change. Accordingly, each of the participants in the present regulatory mechanism needs to continue to be cognizant of both the sources of satisfaction and the sources of dissatisfaction with this mechanism, in order for it to improve and adjust to current and forthcoming conditions.

REGULATIONS

The preceding material has described the general framework in which the regulation of production and marketing of broilers and eggs currently takes place. The controls which are presently in position, derive within this system and are mainly the result of producer commodity marketing board orders in each of the provinces and orders of the Canadian Chicken Marketing Agency and the Canadian Egg Marketing Agency at the national level.

Broiler Industry

The production and marketing of broilers is regulated

at the provincial level in all provinces except Prince Edward Island and Newfoundland. In Prince Edward Island there is only one broiler producer and in Newfoundland there is not, at the present time, any Broiler Marketing Board or other Provincial regulation of broiler chicken production and/or marketing.

In each of the provinces where provincial regulation is in effect, there is generally a control over the volume of broiler production per production cycle, sometimes per year, with minimum and maximum limits on individual producer size being established by the provincial Broiler Marketing Board. Details appear in Table 8. Maximum size of production units varies quite considerably between provinces. The range lies between 30,000 birds per cycle in Manitoba, to 114,000 birds per cycle in Alberta. High upper limits are also observed in Quebec and New Brunswick.

Floor space is generally restricted in some way or another. Most broiler marketing boards have placed a minimum restriction on the square footage required in a broiler barn to grow any given number of birds. The range in requirements is currently between 0.75 square feet per bird (in British Columbia), and one square foot per bird (in Alberta). The amount of production can also be controlled and thereby varied, by the length of the production cycle. In fact, it only takes about fifty-two days (7.4 weeks) to rear a broiler chicken to regular broiler weight. However, most provincial Broiler Marketing Boards require a period of barn vacancy after the production period (for disease control) and this period can be extended in order to slow down the annual rate of output from any given amount of broiler barn capacity. Current cycle lengths range from nine weeks in Alberta to twelve weeks in Ontario and Quebec.

At the federal level, output of broiler chicken meat is regulated under the National Marketing Plan by the Canadian

TABLE 8: Canada. Description. Regulated Broiler Production. By Province. February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI ¹ | Nfld ² | Canada |
|---|---|-------------|------------------|------------------|----------------|--------------|------------|------------|------------|------------------|-------------------|--------|
| Provincial Quotas ³ | m.lb. evis.wt. | 92.0 | 69.3 | 21.0 | 33.0 | 298.0 | 295.0 | 23.0 | 31.5 | 2.1 | 8.5 | 873.4 |
| Average Liveweight per bird ⁴ | lbs. | 4.0 | 3.5 | 3.7 | 3.9 | 4.0 | 4.4 | 4.0 | 3.9 | | | |
| Producers | number | 190 | 160 | 60 | 120 | 715 | 925 | 44 | 75 | | | 2289 |
| Individual Producer Unit Sizes | | | | | | | | | | | | |
| Maximum Limit | 000's | 56 | 114 ^a | 40 | 30 | 75 | 100 | 100 | 40 | | | |
| Average ⁵ | birds | 34 | 28 | 25 | 18 | 32 | 22 | 37 | 29 | | | |
| Minimum for regulation | per cycle | 10 | 2 ^b | 1 | 1 ^b | | | 2 | | | | |
| Floor space limits | lbs. Lwt. per sq. ft. sq. ft. per bird | 5.4 0.75 | 3.5 1.0 | 4.9 0.75 | 4.4 0.90 | 4.75 0.84 | 4.0 0.9 | 5.0 0.8 | 4.9 0.8 | | | |
| Cycle length | weeks | 11 | 9 | 4 x 10 1 x 12 | 10 | 12 | 12 | 11 | 10 | | | |
| Cycles per year | # | 4.7 | 5.8 | 5.0 | 5.2 | 4.3 | 4.3 | 4.7 | 5.0 | | | |
| Quota Trade | F = Free T = Tied to farm | F | T | T | T | F | F | F | T | | | |

Source: Compiled from regulations, reports and industry discussions

¹. Provincial Board inactive.

². No provincial regulation of broiler production in Newfoundland.

³. Canadian Chicken Marketing Agency, November 30, 1979 allocations (5).

⁴. Liveweight per bird taken to be the average eviscerated weight per bird slaughtered, as derived from data reported by Agriculture Canada for 1979 in (1, p.8) assuming eviscerated weight to be 75 per cent at liveweight.

⁵. Derived as production per producer required to fill the provincial quotas, given the number of producers, liveweights per bird and cycle lengths listed.

a. 3% of Issued Quota

b. per year

Chicken Marketing Agency. Under this plan, the agency establishes annual allocations of production for each province and varies these quarterly. The amounts of each of the allocations established in November 1979 for application during 1980, are those presented in Table 8, line 1. The mechanism of quarterly adjustments means that the amount of output can be varied as demand for chicken meat changes.

There is no national regulation of prices paid to producers for broiler chickens. Prices paid to producers in each province are set by the local Broiler Marketing Boards. There is, however, a national restriction on imports of chicken. This restriction is to a maximum amount of 48.5 million pounds eviscerated weight for 1980, and 52 million pounds for 1981. In subsequent years, the annual import quota will be set at a level of 6.3% of the previous year's production (6, January 1980, page 10).

These interventions in the market place for broiler chicken meat in Canada mean that entry into the industry must be restricted. Only so much supply is authorized by the provincial boards pursuant to the National Marketing Plan, and to the extent that production is profitable at all, there will be competition for the licenses to produce the specified quantity of broilers. These licenses are generally known in the industry as quota, and quota is the subject of further regulations. These regulations vary by province. In some provinces, a quota may be traded freely between a willing buyer and a willing seller. In other provinces, the quota can only be traded in conjunction with a production unit with which it is associated. The last line in Table 8 identifies which Provincial Boards are associated with each of these policies. At the present time, there is no provision for trade in quotas between provinces by individuals (there is, of course, the possibility of a province gaining or losing quota by agreement under the National Plan).

Egg Industry

The production and marketing of eggs in Canada is regulated in a similar fashion to the broiler industry. In each province, there is an Egg Marketing Board which controls production in that province by way of quotas, establishes maximum and minimum sizes of production units subject to regulation, and sets the prices paid to producers for eggs. In the egg industry, control is exercised over production by way of restricting the number of laying birds (over twenty weeks of age) which a producer may hold. This control over production, as opposed to marketing, arose as a consequence of the failure of an earlier regulatory mechanism in which an attempt was made to control the number of eggs marketed in Canada. Production unit sizes are restricted to maximums, which vary by province, and range between 15,000 and 50,000 birds. Generally, producers who have less than 500 birds are not subject to regulation although the limit is lower in some provinces.

The total amount of egg production in any one province and also in Canada as a whole, is restricted under the Canadian National Egg Marketing Plan. Actually it is the number of birds laying those eggs which is restricted, not the number of eggs. The total number of layers authorized under the National Plan is presently 21,311 thousand birds and this is divided up between the Provinces in the manner described in Table 9, Line 1.

Prices for Grade A Large Eggs in each of the provinces are established by a national formula administered by the Canadian Egg Marketing Agency. This formula takes into account costs of egg production as determined by a farm survey, certain marketing costs and certain historic market differentials in price. The formula also involves a national weighting procedure for the cost of production components used in the formula. The result is set of Grade A Large egg prices, one for each of the provinces

TABLE 9: Canada: Description. Regulated Egg Production. By Province. February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|--------------------------------|--|--------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Provincial Quotas ¹ | 000's of birds | 2,662 | 1,684 | 779 | 2,504 | 8,276 | 3,535 | 396 | 917 | 137 | 421 | 21,311 |
| Producers | Number | 192 | 285 | 125 | 300 | 905 | 308 | 42 | 53 | 45 | 38 | 2,293 |
| Individual Producer | | | | | | | | | | | | |
| Unit Sizes | Number of birds | | | | | | | | | | | |
| Maximum | | 20,000 | 25,260 ^a | 30,000 | 20,000 | 30,000 | 50,000 | 25,000 | 50,000 | 15,000 | 25,000 | 50,000 |
| Average | | 13,865 | 5,909 | 6,232 | 8,347 | 9,145 | 11,477 | 9,429 | 17,302 | 3,044 | 11,079 | 9,300 |
| Minimum | | 500 | 300 | 300 | 500 | 500 | 250 | 200 | 500 | 300 | 500 | 200 |
| Quota Trade | F=Free B=Via Board only T=Tied to farm R=Rental | F | T | T | T | R | F | F | B | T | T | |

Source: Compiled from regulations, reports and industry discussions.

¹. N.F.P.M.C. data for 20 dozen eggs/bird/year (5).

a. 1-1/2 per cent of provincial quota outstanding.

in Canada, determined weekly, with up-dates on certain of the capital cost components being reflected quarterly. Individual provincial Egg Marketing Boards are obliged by their agreement under the National Plan to charge these prices for Grade A Large eggs in their province. However, the Provincial Boards have complete autonomy in the pricing of the other grades and sizes of eggs produced in their province.

The importation of eggs and egg products is controlled pursuant to the provisions of the G.A.T.T. agreement. The current maximum level of imports are: for shell eggs, 0.625% of Canadian production; for egg powder, 940,000 lbs; for liquid and frozen egg products, 2.4 million pounds. The total of these amounts is the equivalent of 509,550 boxes of eggs per year, or 7.6 million dozen eggs (5). These amounts may be supplemented in circumstances where the C.E.M.A. cannot supply products demanded, from Canadian sources.

The restrictions on the supply of eggs to the market in Canada, mean that the license to supply from Canadian sources must be restricted and therefore has value. Again, in a similar fashion to that in the Canadian broiler industry, some provincial Egg Marketing Boards allow the free trade in egg quotas. Others require that trade in quotas occur only with a production unit. The policies of each of the provincial Egg Boards in this respect is noted in the bottom line of Table 9.

These then are the major regulations controlling production and marketing of broilers and eggs in Canada at the present time. We now proceed to an evaluation of economic impacts of these regulations on the various parties (producers, consumers, and the allied trades) involved in these two industries.

Chapter IV

ECONOMIC IMPACTS

The economic impacts of regulation in the markets for broilers and eggs in Canada are several. The major ones are the impact on producers and consumers. Also to be considered, however, are those impacts occurring in the supply sector, in the processing, retailing and distribution sectors, and the impact on the taxpayers. These are considered below.

IMPACTS ON PRODUCERS

Impacts on producers are positive and derive mainly from higher prices paid by consumers. The reason for this is that, since there is no significant input from provincial or federal treasuries in the marketing system presently existing for broilers and eggs, benefits accruing to producers are necessarily those contributed by consumers. The criterion for evaluating the amount of these benefits to producers (and thereby costs to consumers) is the quota value.

Quota value has been chosen for this study for a number of reasons. First it is a comprehensive measurement of the benefits accruing to individual producers of any one regulated commodity in a specified province. It reflects the total benefits accruing to a farmer in that province from having the prices and quantities of his product regulated at the provincial and national levels. In general, where a quota is traded in the market place the value which is established reflects the marginal valuation of the amount of quota involved. As such the market value of quota may reflect some or all of the following factors; the marginal cost of production for the commodity, the expected marginal revenue, the time period over which the benefits are expected to last, and the cost of money or discount rate with which producers

are faced. Reflecting in these four factors may be other factors. Some of these which have been observed in quota markets are the following: superior technical efficiency in production, e.g., feed conversion efficiency; restrictions on who may buy and sell quotas; the price established for the product by the commodity marketing board; the amount of the quota outstanding and the probability of an increase or decrease in quotas in the foreseeable future, and uncertainty. The market value of quotas thus represents a producer's best estimate of the value of benefits, present and future, of being a producer of the regulated product, relative to his next best alternative, at a point in time.

It may be argued by some that this measurement is too comprehensive in that it packages together the benefits of taxation and other benefit programmes with the benefits of regulated marketing. This is true to a degree, but to the extent that quota value gives a measurement of total benefits to agriculture from all programmes it is a measure of the need for benefits from regulated marketing by itself. With a measure of the total benefits of all programmes to egg and broiler producers displayed it is then possible to look at whether or not the amount of regulation for these commodities needs to be increased or decreased relative to other sectors of society.

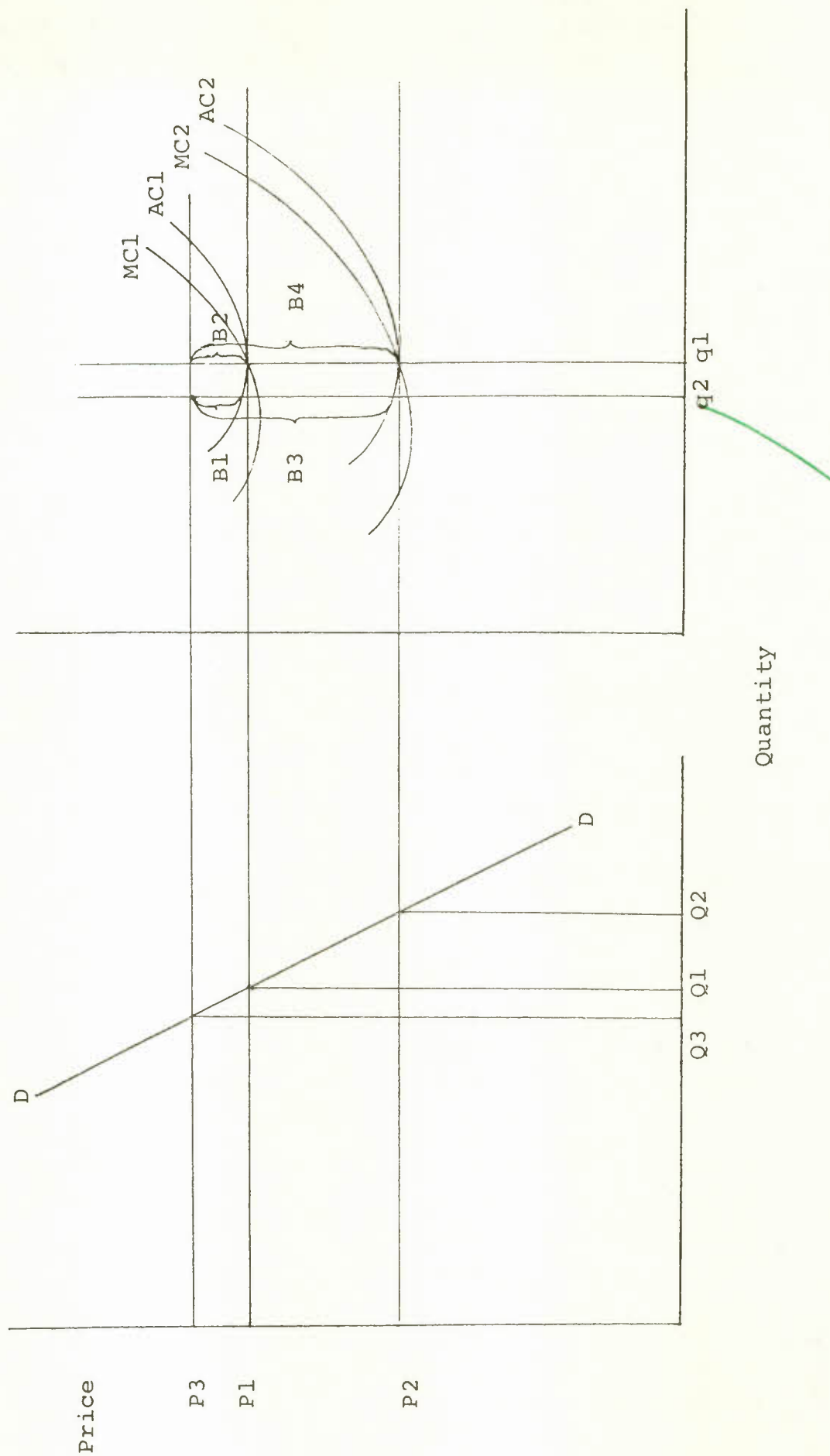
Another benefit of observing quota values is that they are uniquely Canadian. They reflect Canadian costs of production, Canadian prices, Canadian interest rates, Canadian taxation, and the uncertainties of doing business in Canada. The criterion thus avoids comparisons to other countries and assumptions which are necessary about production and market conditions in those countries inherent in such comparisons.

The economics of market regulations for broilers and eggs can be observed by reference to Figure 1. In this figure,

Figure 1. Effects of Technology and Supply Management Marketing Boards on Market Prices and Producer Profits.

Individual Producers

Industry



market conditions are represented on the left of the figure, and individual farmer production conditions are represented on the right hand side. An initial equilibrium is assumed at P_1 with an output of Q_1 in total and an output from each individual producer of q_1 . Producers, Type 1, having the cost curves MC_1 , AC_1 , supply all the product.

If demand increases and prices move upward to P_3 there is no problem as individual producers can expand along their MC_1 curve in the short run and more producers of Type 1 can enter the industry in the longer run.

The problems giving rise to marketing boards and market regulation are those generated when a change in technology or market conditions allows producers of Type 2 to enter the market. These producers are represented by the cost curves MC_2 and AC_2 on the right hand side of Figure 1. When supplies from these producers appear, prices tend towards P_2 , a situation which is disastrous for all Type 1 producers. This situation is the condition which gives rise to requests for the formation of marketing boards having powers to restrict quantity and set price.

Obviously what is needed in this situation is a restriction on the quantity reaching the market from Q_2 back to Q_1 so that prices are maintained at the level of P_1 or, better still, raised to the level of P_3 . A pro rata cutback in the quantities supplied by each producer, from q_1 to q_2 , on the right hand side of Figure 1 will reduce the total quantity Q_2 to Q_1 . Such a cutback, if it only goes as far as Q_1 will not satisfy the individual producers of Type 1. At q_2 and price P_1 , their average costs exceed their average revenue and they continue to be in a loss position. Accordingly, the cutback must be such as to raise prices to a level P_3 which is at least sufficient to cover the average costs of the Type 1 producers as shown on their AC_1 curve.

For the purposes of illustration the value of P3 established by the marketing board is shown at a level above the AC1 curve at q2, (it would however be sufficient if P3 intersected AC1 at the level q2). This situation then gives rise to quota values.

Quota Values

Several quota values evolve from the situation shown on the right hand side of Figure 1. The first is the value of the quota to the Type 1 producer. At q2 the Type 1 producer has an excess of average revenues over average costs equal to B1. Thus, if the Type 1 producer were to sell his production unit he could capitalize into the value of his sale, the value V1, equal to B1 times q2 for as many time periods (discounted to present value) as the benefit is expected to last. This would be the value of the quota to the Type 1 producer in a whole farm sale situation. Equally, this is the value of the quota to a new entrant to the industry were he to be a purchaser of a Type 1 unit.

A second quota valuation exists for individual producers of Type 1. This is the quota value existing when a Type 1 producer wishes to expand his production from q2 to q1. This expansion can be achieved if this producer can purchase a quota for the amount of this difference. In this case the value of the quota will be higher than in the whole farm sale case because the difference between average revenues and average costs, B2, is greater at q1 than q2.

The existence or potential existence of a Type 2 producer gives rise to other valuations of the quota. Again, two types of quota valuation are possible. There will be one value for whole farm sales, V3, incorporating B3, and another for marginal increments, V4, incorporating B4. Both these valuations will be greater than the valuations V1 and V2, since B3 and B4 are both greater than B1 and B2.

The Type 2 producer creates circumstances where it may pay the Type 1 producer to drop out of the industry completely. This would happen in circumstances where the value paid by the Type 2 producer was sufficiently large (in excess of V_1) to compensate the vendor of the Type 1 unit, not only for his quota but also for any losses which he might incur on the sale of his other assets: land, buildings and equipment, in moving them to their next best use. In this case, the Type 1 producer's quota might be subdivided and sold off in small portions to Type 2 producers who would use it to expand their production from q_2 to q_1 . Producers of Type 2 do not have to bid the full amount of their benefit V_4 to get the quota; only sufficiently more than V_1 to get the Type 1 producer to sell. V_4 is the maximum.

The benefit to producers of the marketing board and regulations in this case is measured by the bids, V_j , $j = 1, \dots, 4$, made in the market place for quota. There, all four categories of quota valuation will seek expression but, other things being equal, the highest value, namely that associated with marginal increments of production for the Type 2 producer will prevail. We thus have, in the quota value, an accurate measure of the benefits to producers of the market regulation for broilers and eggs.

Benefits

Benefits to producers, from the regulation of production and marketing are discussed in two parts: amount and distribution.

a. Amount

The amount of benefits accruing to producers of broilers and eggs under the existing market regulations has been determined by application of the principles discussed above.

Where quota is freely tradeable we can derive the amount of benefits accruing to producers in relatively simple fashion. This is done in the first part of Tables 10 and 11.

TABLE 10: Canada: Quota Values and Estimates of the Total Capital Value of Benefits of Regulation to Producers in the Broiler Industry. By Province. February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|-------------------------------------|--|-----------------------|--------------|-------------|--------------|-----------------------|---------------------------|---------------------|-------------|-----|------|--------|
| Provinces with Market Valuations | | | | | | | | | | | | |
| Quota Values | \$ bird \$ per sq.ft. | 12 16 ^a | | | | 9.5 ^a 8 | 6.14 ^a 6.75 | 4 5 ^a | | | | |
| Total Valuation ¹ | \$ millions | 77 | | | | 156 | 154 | 7 | | | | 394 |
| Provinces Without Market Valuations | | | | | | | | | | | | |
| Imputed Quota Values ² | \$ per bird ³ \$ per sq.ft. \$ millions | | 5 5 22 | 7 5 6 | 6 5 10 | | | | 6 5 9 | | | |
| Total Valuation ³ | | | | | | | | | | | | 47 |
| Canada | | | | | | | | | | | | |
| Total Valuation | \$ millions | | | | | | | | | | | 441 |

Source: Industry discussions.

1. Values per square foot times number of square feet required to fill annual quota under the floor space limits and number of cycles per year stated in Table 8, liveweight converted to eviscerated weight in the ratio of 1:0.75.
2. See text.
3. Derived from quota value at \$5 per sq. ft. using liveweights and floorspace restrictions from Table 8.
 - a. Derived using the liveweights and floorspace restrictions reported in Table 8.

TABLE 11: Canada, Quota Values and Estimates of Total Capital Value of Benefits of Regulation to Producers in the Egg Industry. By Province.
February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | P.E.I. | Nfld | Canada |
|---|-------------|-----------------|------|------|-----|-----------------|-----|----|----|--------|------|--------|
| <u>Provinces with market valuations</u> | | | | | | | | | | | | |
| Quota Values | \$ per bird | 32 ^a | | | | 15 ^b | 10 | 12 | 5 | | | |
| Total Valuation | \$ millions | 85 | | | | 124 | 35 | 5 | 5 | | | 254 |
| <u>Province without market valuations</u> | | | | | | | | | | | | |
| Imputed Quota Value | \$ per bird | | 5 | 5 | 5 | | | | | 5 | 5 | |
| Total Imputed Value | \$ millions | | 8 | 4 | 13 | | | | | 1 | 2 | 28 |
| <u>All Provinces</u> | | | | | | | | | | | | |
| Total Canada | \$ millions | | | | | | | | | | | 282 |

Source: Industry discussions.

a. Based on quota valuations of \$2,500 per case of 30 dozen eggs per week. 20 dozen eggs per bird per year.

b. Imputed from reported \$2.50 per layer per year rental. At interest rate of prime plus one = 16%, this rental gives value per bird of \$15.63.

Unit quota valuations are reported first. From these a total valuation of the benefits from regulated production is derived. The total for broilers is \$394 million and for eggs, \$254 million. These are capital valuations of the benefit.

Estimates of the benefits to producers from regulated marketing in provinces where free trade in quota is not allowed is more difficult. Fortunately, only 18% of regulated broiler production and 26% of regulated egg production falls in this category. For the purposes of this study an estimate of the benefit provided to producers in these provinces is obtained by using an assumption that the benefit does not exceed that of the lowest valuation observed in those provinces allowing free trade. The merits of this assumption are as follows; first, it is widely agreed that the value of the benefit in these provinces is not zero. It has some positive value. Second, it is reasonable to suppose that the egg and broiler quota markets tend towards some equilibrium as between provinces. While quota is not presently tradeable between provinces it is still possible for resources (notably egg and broiler producers) to move between provinces in a manner which allows for the sale of the quota in provinces having high quota valuations and the purchase of it in provinces having low quota valuations. This process, while unlikely to go to completion, is nevertheless an active one, and one which suggests values of quota towards the mid range of the observed values of quotas. The adoption of the lowest of these observed values for use in provinces where trade in quota is restricted, therefore probably represents a conservative estimate for these areas.

When these values for quotas are added to those for the provinces having free trade in quota, estimates of the total value of the benefits for broilers and eggs are respectively,

\$441 millions and \$282 millions. Again, it is to be emphasized that these are capitalizations of the benefits, not the annual stream of benefits. It is to this latter that we now turn.

b. Distribution of Benefits

The distribution of the benefits identified above varies by province. It also depends upon whether the beneficiary is a current quota holder or a person who has retired from the industry and has sold his quota. In the case of the latter person there are two benefits. The first is the benefit of higher prices and incomes received during the term of his participation in the regulated industry. Secondly, it is the benefit accruing to that person from the sale of the quota upon his retirement. This latter represents a capitalization of all future benefits expected to accrue to that quota after its sale by this person. In other words, this person benefits both during his lifetime as a farmer and, subsequently, during his retirement. In the latter period he has benefits by way of an income from the capital he obtained by selling the quota at the time he ceased farming.

For current holders of quota, the benefits of regulation are only those represented by the excess of current prices for their product over their costs of producing this product. In the event that a current holder purchased his quota from another producer this amount might be quite small or zero or even negative (if unit costs increase faster than prices). It is only when the marketing board raises prices relative to costs or when new quota is allocated free, that this producer becomes a beneficiary of the regulatory process. Needless to say, once in the system, this producer has strong motivations to seek both types of regulatory decision.

From these observations two conclusions can be drawn.

First, the value of quota does in fact become capitalized into the cost of production because it becomes a purchased input for new producers and, second, prices (relative to costs) must escalate over time in order to establish benefits for those producers replacing the original producers.

The distribution of benefits from regulation in broiler and egg industries in Canada have been investigated by way of an examination of the distribution of benefits among provinces and amongst producers having different sized operations. Because of the potential for benefits of regulation to accrue by both capitalization and annual increments to income, both forms of benefit are reported. This information appears in Tables 12 and 13. In these tables, the aggregate benefits appearing in Tables 10 and 11 are distributed, by province, on a "per producer" basis. Three levels of benefit are identified. These are: the benefit accruing to the smallest producer under regulation, the benefit to the average producer under regulation, and the benefit to the largest producer under regulation.

The national average benefit, as capital, is estimated to be \$193,000 per producer for broilers and \$123,000 per producer for eggs. The range in benefits, as capital, for the average producer, in different provinces, ranges from an estimated \$67,000 per producer in Nova Scotia to \$405,000 per producer in British Columbia for broilers. For eggs the range is between \$22,000 per producer in Prince Edward Island and \$443,000 per producer in British Columbia.

For producers at the maximum size limits of production in the three major producing provinces the benefits are higher. Capital values of the benefits for these producers fall in the range \$614,000 to \$713,000 for broiler producers and \$450,000 to \$640,000 for egg producers.

TABLE 12: Canada. Distribution of Benefits to Producers of Broiler Market Regulation. By Province. February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|----------------------------------|-------------|------|------|------|-----|------|------|-----|-----|-----|------|--------|
| <u>Capitalization</u> | | | | | | | | | | | | |
| Total ¹ | \$ millions | 77 | 22 | 6 | 10 | 156 | 154 | 7 | 9 | | | 441 |
| Per Producer | | | | | | | | | | | | |
| Minimum ² | \$ 000's | 120 | 2 | 7 | 1 | | - | 8 | - | | | - |
| Average ³ | \$ 000's | 405 | 138 | 100 | 83 | 218 | 166 | 159 | 67 | | | 193 |
| Maximum ⁴ | \$ 000's | 672 | 570 | 240 | 180 | 713 | 614 | 400 | 240 | | | 713 |
| <u>Annual Income⁵</u> | | | | | | | | | | | | |
| Total | \$ millions | 12.3 | 3.5 | 1.0 | 1.6 | 25.0 | 24.6 | 1.1 | 1.4 | | | 70.5 |
| Per Producer | | | | | | | | | | | | |
| Minimum | \$ 000's | 19 | a | 1 | a | - | - | 1 | - | | | - |
| Average | \$ 000's | 65 | 22 | 16 | 13 | 35 | 27 | 25 | 11 | | | 31 |
| Maximum | \$ 000's | 108 | 91 | 38 | 29 | 114 | 98 | 64 | 38 | | | 114 |

1. From Table 10.

2. Smallest regulated flock size.

3. Total value divided by number of producers.

4. Largest regulated flock size.

5. Calculated as the capital benefit annualized at interest of prime rate plus one percent = 16%, being the opportunity cost of the fund involved.

a. Less than \$500 per year.

TABLE 13: Canada. Distribution of Benefits to Producers of Regulation in the Egg Industry. By Province. February, 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|----------------------------------|-------------|------|------|------|-----|------|-----|-----|-----|-----|------|--------|
| <u>Capitalization</u> | | | | | | | | | | | | |
| Total ¹ | \$ millions | 85 | 8 | 4 | 13 | 124 | 35 | 5 | 5 | 1 | 2 | 282 |
| Per Producer | | | | | | | | | | | | |
| Minimum ² | \$ 000's | 16 | 2 | 2 | 3 | 8 | 3 | 2 | 3 | 2 | 3 | 2 |
| Average ³ | \$ 000's | 443 | 28 | 32 | 43 | 137 | 114 | 119 | 94 | 22 | 53 | 123 |
| Maximum ⁴ | \$ 000's | 640 | 126 | 150 | 100 | 450 | 500 | 300 | 250 | 75 | 125 | 640 |
| <u>Annual Income⁵</u> | | | | | | | | | | | | |
| Total | \$ millions | 13.6 | 1.3 | 0.6 | 2.1 | 19.8 | 5.6 | 0.8 | 0.8 | 0.2 | 0.3 | 45.1 |
| Per Producer | | | | | | | | | | | | |
| Minimum | \$ 000's | 3 | a | a | a | 1 | a | a | a | a | a | a |
| Average | \$ 000's | 70 | 4 | 5 | 7 | 22 | 18 | 18 | 14 | 4 | 8 | 20 |
| Maximum | \$ 000's | 102 | 20 | 24 | 16 | 72 | 80 | 48 | 40 | 12 | 20 | 102 |

1. From Table 11.

2. Smallest regulated flock size.

3. Total capitalization divided by the number of producers reported in Table 9.

4. Largest regulated flock size.

5. Calculated as the capital benefit annualized at interest at prime plus one percent = 16%, being the opportunity cost of the funds involved.
a. \$500 or less per annum.

The value of these benefits have been converted to an annual income equivalent by assuming an opportunity cost of capital in these industries of prime interest rate plus one percent. This rate is typical of rates paid by producers for funds borrowed for working and intermediate term capital of the type which might be used to finance the purchase of (additional) quota.

Inspection of the lower halves of Tables 12 and 13 reveals the amounts of these annual benefits. For broilers, the national average is \$31,000 per producer; for eggs, \$20,000 per producer. The range across the provinces in these average producer benefits is from \$11,000 to \$65,000 per producer of broilers and from \$4,000 to \$70,000 per producer in eggs.

Producers operating at the maximum allowable levels of production receive estimated benefits of between \$29,000 and \$114,000 each in broiler production and \$12,000 and \$102,000 each in egg production.

ADMINISTRATIVE COSTS

There are two categories of administrative cost associated with the present regulatory mechanisms for broilers and eggs in Canada. These are 1) the costs of the provincial commodity marketing boards and the national commodity marketing agencies and 2) the costs of supervision of these boards and agencies.

The first set of costs, 1), are incurred by producers. They finance these costs out of levies, per unit of product, taken against gross product (unit) prices. There are generally two levies: one for the provincial commodity marketing board operations, the other for the national agency operations.

The burden of these two levies is shared by producers and consumers. Consumers pay more per unit with the levies in place than they would without them. Producers sell less at the (consumer) price including the levy than one without it.

For any quota level of product sales consumer prices (at the farm gate) are the producer net price plus the sum of the levies.

The levies for the provincial board operations are currently about 1-1/2 cents per dozen for eggs and one-half a cent per pound live weight for broiler chickens.¹ The CEMA administrative levy is one cent per dozen and the CCMA levy is three cents per hundred pounds live weight.

At these levels of unit cost of administration and with production at the quota levels as reported in Tables 8 and 9, the total cost of producer operated administration is \$16.8 million. This amount is made up of \$6.1 million for broiler market administration and \$10.7 million for egg market administration. Details, by province, are included in Tables 15 and 16 following.

The second category of administrative cost is that of the statutory regulatory bodies: the provincial supervisory boards and the National Farm Products Marketing Council. These costs are funded by taxpayers since these operations are financed by the provincial and federal government treasuries, respectively.

Typically a provincial supervisory board or council supervises between six and twelve commodity boards. The costs of supervision are therefore spread over a number of commodities,

1. Actual values for B.C. Other provincial board levies assumed similar.

and since the super-boards' activities are not generally extensive (Alberta and Ontario excepted perhaps), this does not represent a substantial cost of regulation.

The cost of the National Farm Products Marketing Council can more nearly be identified as a cost specific to the operations of poultry market regulation. At the present time the overheads of this council must be attributed mainly to the supervision of the Canadian Egg Marketing Agency, the Canadian Turkey Marketing Agency and the Canadian Chicken Marketing Agency. The total expenditure for this council was reported for the year 1978-79 to have been \$687,700 (4, 1978/9) and is budgeted for the 1979-80 to be \$845,300 (5). To this we should add an additional "one-shot" taxpayer cost of \$100,000 as a start up cost, provided by the council to each of the national agencies when they were first proclaimed. These last amounts, however, are more in the nature of capital costs than continuing costs.

Estimates of taxpayer costs of supervisory regulation in these two industries appear in Table 14. The total for broilers and eggs together is just over \$1 million per year.

IMPACTS ON ALLIED INDUSTRIES

The impacts of market regulation on the broiler and egg supply (input) sector and on the processing, distribution and retail sectors are not well known.

Theoretical considerations suggest that the input sector is likely to be favoured and the processing, distribution and retail sectors are likely disadvantaged. The input sector is favoured when broiler and egg production is predictable and stable. Producers purchase more inputs, purchase more regularly, pay bills more promptly and may be willing to pay higher prices for inputs as well. The latter is certainly likely when output

TABLE 14: Estimates of Taxpayer Costs of Regulation of the
Broiler and Egg Marketing in Canada. 1979/80.

| <u>Cost Item</u> | <u>Broiler Industry</u> | <u>Egg Industry</u> |
|---|-----------------------------|-------------------------|
| | (\$000's/year) | |
| <u>Provincial "Super" Boards</u> | | |
| (Councils or Commissions) | | |
| 10 boards | | |
| \$100,000 expenditure, average, each, per year | | |
| 25% attributed to broiler regulation | 250 | |
| 25% attributed to egg regulation | | 250 |
| <u>National Farm Products Marketing Council</u> | | |
| \$845,300 expenditure (estimate) | | |
| 40% attributed to eggs | | 338 |
| 30% attributed to broilers (25% attributed to turkeys 5% attributed to other) | 254 | |
| | <hr/> | <hr/> |
| Total Broiler Industry Taxpayer Costs | 504 | |
| Total Egg Industry Taxpayer Costs | | 588 |
| Total Broiler and Egg Industry Taxpayer Costs | | 1,092 |

prices for broilers and eggs are set on the basis of "cost of production".

By contrast, the people and firms who handle the product after the farm gate, may be disadvantaged. To the extent that marketing boards and agencies are successful in restricting output and raising prices two effects are likely. First, the higher prices must be paid by processors for their input. Second, reduced volumes of product moving through the processing plants mean higher fixed costs per unit of their product. This means lower profits unless prices can be raised. Higher prices will be possible if competition from other sources is limited (as it is under the present arrangements of provincial, federal supply management) but there will still be competition from substitute products, such as beef and pork. When the supply of these products is not restricted - as is the present condition - this competition can be significant and can effectively limit the amount by which broiler and egg prices can be raised to compensate for higher unit input and fixed costs of processing. Thus, for the processing sector, lower profits are distinctly likely when marketing boards implement supply management.

The impacts of market regulation on related sectors has been examined by Funk and Rice (9). They interviewed 41 firms in agribusiness in Ontario who's operations were or might have been affected by the presence and operations of the Ontario Chicken Producers Marketing Board (OCPMB). Hatcheries, feed manufacturers and processors comprised the sample interviewed. Questions regarding prices of live chickens, gross marketing margins; importation of live chickens; intersector relationships; marketing strategies; demand and diversification; and technology, capacity and costs were asked.

The findings of this study tend to confirm the hypotheses

stated above. More particularly Funk and Rice found that, since the introduction of market regulation for broilers in Ontario, via the OCPMB,

1. Market power has moved from the supply and processing sectors to the production sector. Specifically, control over supply has moved from feed companies to the producer marketing board and prices are no longer determined by negotiation but by the OCPMB using a formula.
2. Ownership of production units by agribusiness (vertical integration) has been held constant at the level existing when the OCPMB was started.
3. Gross margins of hatcheries and feed companies have increased. These increases are attributed to an improved financial situation amongst producers, higher prices for chicks and feed and lower instances of bad debts.
4. Processors gross margins were found universally to be lower. Reasons noted were: the positioning of processors "between a relatively inflexible, cost of production determined price for their inputs and a downward (sloping), flexible, market determined, price for their processed product", and higher fixed costs per unit of product.
5. Most of the agribusiness managers interviewed thought that OCPMB pricing policies eliminated the possibility of developing new markets outside the province of Ontario.
6. Processors regarded increases in inventories of finished product, due, in their opinion, to "unrealistically high prices" and lack of incentives for producers to produce product specific to market demands.
7. Adoption of new technology in processing is discouraged by low growth in markets and low gross margins.
8. Processors operate at levels significantly below capacity.
9. Business risk has been transferred from the feed, hatchery and production sectors to the processing sector.

It is the general conclusion of this study that the impact of marketing boards is more direct and detrimental to firms in the output sectors (processing) than to firms in the input sectors (hatcheries and feed companies).

CONSUMER COSTS

As noted above the consumers of the broilers and eggs which are marketed through Canada's regulated system are the persons who pay most of the costs from which the producers benefits derive. These costs include the cost of producer benefits and the cost of provincial and federal producer administration of the system.

The data and calculations of the consumer costs by province are presented in Tables 15 and 16. Four estimates of consumer cost are displayed. First the total amount of the consumer cost in each province and nationally is displayed. Secondly the cost per pound of broiler meat and per dozen of eggs is presented. Third, a per capita per annum cost is displayed and, finally, a cost per family per year is noted.

In the case of broilers, Table 15, total costs per year are estimated to range between \$1.15 million for the Province of Saskatchewan and \$27.1 million for the Province of Ontario. On a per pound basis these costs are represented by additions to the prices (at the farm gate level) of between five and fourteen cents per pound of eviscerated weight. On a per capita basis, for Canada the annual cost per consumer is of the order of three dollars per person with a range of one to five dollars per person, depending on province of residence. Per family, the range of consumer costs is \$4.21 to \$16.65 with a national average of \$11.34.

The costs of the regulated egg marketing programmes are reflected in Table 16. Total amounts vary from about \$0.3 million

TABLE 15: Estimates of Costs to Consumers of Regulated markets for Broilers in Canada. By Province. 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|-------------------------------|-------------------|-------|-------|------|-------|-------|-------|------|------|------|------|--------|
| Population ¹ | 000's | 2,567 | 2,009 | 957 | 1,031 | 8,500 | 6,299 | 701 | 847 | 123 | 574 | 23,618 |
| Family Size ² | Number of persons | 3.3 | 3.5 | 3.5 | 3.4 | 3.4 | 3.5 | 3.7 | 3.5 | 3.7 | 4.0 | 3.5 |
| Consumer Cost ³ | | | | | | | | | | | | |
| Producer Benefit ⁴ | \$ millions | 12.3 | 3.5 | 1.0 | 1.6 | 25.0 | 24.6 | 1.1 | 1.4 | - | - | 70.5 |
| Administration | | | | | | | | | | | | |
| Provincial Board ⁵ | | .61 | .46 | .14 | .22 | 1.98 | 1.96 | .15 | .21 | - | - | 5.75 |
| CCMA ⁶ | \$ millions | .04 | a | .01 | .01 | .12 | .12 | .01 | .01 | .001 | a | .32 |
| Total | | 12.95 | 3.96 | 1.15 | 1.83 | 27.1 | 26.68 | 1.26 | 1.62 | .001 | - | 76.55 |
| per lb. ⁷ | cents | 14 | 6 | 5 | 6 | 9 | 9 | 5 | 5 | .05 | - | 9 |
| per capita | dollars | 5.04 | 1.97 | 1.20 | 1.77 | 3.19 | 4.24 | 1.80 | 1.91 | .01 | - | 3.24 |
| per family | dollars | 16.65 | 6.90 | 4.21 | 6.03 | 10.84 | 14.82 | 6.65 | 6.69 | .03 | - | 11.34 |

1. Ref. 14.

2. Ref. 15.

3. Assumes consumption in province of production

4. From Table 12.

5. At 0.5¢/lb. Lwt.

6. 3¢/100 lb. Lwt.

7. Evis. Wt.

a. Not presently a member of CCMA.

TABLE 16: Estimates of Costs to Consumers of Regulated Egg Marketing in Canada. By Province. 1980

| Item | Unit | BC | Alta | Sask | Man | Ont | Que | NB | NS | PEI | Nfld | Canada |
|--------------------------------|-------------------|-------|-------|------|-------|-------|-------|------|------|------|------|--------|
| Population ¹ | 000's | 2,567 | 2,009 | 957 | 1,031 | 8,500 | 6,299 | 701 | 847 | 123 | 574 | 23,618 |
| Family Size ² | number of persons | 3.3 | 3.5 | 3.5 | 3.4 | 3.4 | 3.5 | 3.7 | 3.5 | 3.7 | 4.0 | 3.5 |
| Consumer Cost ³ | | | | | | | | | | | | |
| Producer Benefit ⁴ | \$ millions | 13.6 | 1.3 | 0.6 | 2.1 | 19.8 | 5.6 | 0.8 | 0.8 | 0.2 | 0.3 | 45.1 |
| Administration | | | | | | | | | | | | |
| Provincial Boards ⁵ | \$ millions | 0.8 | 0.5 | 0.2 | 0.8 | 2.5 | 1.1 | 0.1 | 0.3 | .04 | 0.1 | 6.4 |
| CEMA ⁶ | \$ millions | 0.5 | 0.3 | 0.2 | 0.5 | 1.7 | 0.7 | 0.1 | 0.2 | .03 | 0.1 | 4.3 |
| Total | \$ millions | 14.9 | 2.1 | 1.0 | 3.4 | 23.9 | 7.4 | 1.0 | 1.3 | 0.3 | 0.5 | 55.8 |
| per dozen eggs | cents | 28 | 6 | 6 | 7 | 14 | 10 | 13 | 7 | 11 | 6 | 13 |
| per capita | dollars | 5.80 | 1.05 | 1.04 | 3.30 | 2.81 | 1.17 | 1.43 | 1.53 | 2.44 | 0.87 | 2.36 |
| per family | dollars | 19.14 | 3.68 | 3.64 | 11.22 | 9.55 | 4.10 | 5.29 | 5.36 | 9.03 | 3.48 | 8.26 |

1. Ref. 11.

2. Ref. 12.

3. Assumes consumption in province of production.

4. From Table 13.

5. At 1-1/2 cents per dozen.

6. At 1 cent per dozen.

7. Per dozen of provincial quota at 20 dozen eggs per layer per year.

per year in Prince Edward Island to \$23.9 million in Ontario. On a per dozen of eggs basis these costs vary in amounts from 6 to 28 cents per dozen. On a per capita basis these amounts represent between \$1 and \$6 per person per year, with a national average of \$2.36 per person. Per family, the costs vary between \$3.48 in Newfoundland and \$19.14 in B.C. The national average is \$8.26.

Total consumer costs of regulation in broilers in Canada are estimated to be \$76.6 million. For eggs the total is \$55.8 million. Together, the total cost is estimated to be \$132.4 million.

Chapter V

EVALUATION

This chapter undertakes an evaluation of the benefits and costs of economic regulation in the broiler and egg industries by way of evaluating the impacts reported in Chapter IV relative to the goals and objectives of the participants in the regulatory process identified in Chapter III. The evaluation is first in respect of the producer goals, then the government goals, and then the goals of other participants in the system.

PRODUCER GOALS

The evaluation of regulation in respect of producer goals is undertaken in two parts. This is considered desirable because there is a difference in the impacts on producers depending on whether they are or were original participants in the system when regulation was initiated or whether they are relative new-comers such as those persons who have just bought into the industry during, say, the last twelve months. We deal first with the situation of the original producers.

The original producers are those who were in the industry producing either broilers or eggs prior to or at the time of the commencement of market regulation for these two commodities. These people have been the recipients of an initial quota allocation and subsequent quota allocations reflecting market growth, free, and we assume that they have not at any time purchased quota in this analysis. For these people, there have indeed been substantial benefits to market regulation. The goals of producers, namely, higher prices, increased income and price stability, have all been attained and in substantial measure as reflected in the information reported in Tables 12 and 13. Prices are higher and annual incomes are higher by amounts of an estimated \$31,000 per producer of broilers and \$20,000 per producer of eggs on average in Canada. Furthermore, marketing board regulations at the provincial level have been effective

in maintaining operations at family farm sizes, thus supporting the maintenance of the family farm. Control of both vertical and horizontal integration have been largely effected through the limits on the size of individual producer operations and through restrictions on who may own these operations. Domestic self-sufficiency in food supplies has been aided by the restrictions on importations now associated with both broilers and egg supplies. The trade figures presented in Chapter II suggest self-sufficiency of close to 100% in both commodities in 1979.

There has also been some redistribution of income amongst these producers, the major effect coming from the Board-established limits to the maximum size of units. People with these maximum sized units have the fact of being required to give up most if not all opportunities to expand their operations. This has left more quota for allocation to smaller sized units, thereby redistributing the gross income from sales of broilers and eggs from the larger to the smaller units.

Market uncertainty has been modified. It is not clear that it has been removed altogether, however. Price uncertainty has been decreased. Prices are set by the Boards and are relatively stable. Market uncertainty with respect to the volume of sales continues, mainly due to the continuing competition between broilers and eggs and other food commodities, such as beef and pork. There have, however, been some gains due to controls on imports from other countries and a measure of regulation of the flows between Provinces within Canada.

The goals of producer control of marketing, equity in the access by producers to available markets, and a democratic process for determining the persons who will be the Boards and control the market, have all been attained. Further, it appears

that equity, a return to resources, has also been attained; this observation being made on the basis of the waiting lines of persons wishing to enter the industry, and the substantial bids being placed by both, producers and non-producers for the purchase of quotas in both the broiler and egg industries. Finally, a balance of power between producers and those from whom they buy and to whom they sell, has been attained. This balance is now more favourable to producers than prior to the commencement of market regulation.

Taken overall then, market regulation, for those persons who were in the broiler and egg industries prior to and at the time of the commencement of market regulation, has been positive and substantial.

Further, it has been possible for those people who have quit the industry since the commencement of regulation, to take with them the benefits of the regulatory process to that date. We refer here to the opportunities that have existed and continue to exist for producers to sell their quotas when they exit from the industry. This sale of quotas allows the exiting producer to create an asset worth several hundreds of thousands of dollars in many provinces. From this asset, a generous annual income can be obtained for the balance of that producer's life, and indeed, into the next generation as these assets are transferred.

The benefits of the regulatory system for new producers are quite different. For these producers, who are those who have purchased production facilities and the quota within, say, the last twelve months, the financial benefits are greatly reduced, if in fact they exist at all. For these people, prices are not in fact higher, nor is there any increased income deriving from the regulatory process. Those benefits have now been transferred

to the person who sold the production unit and quotas as described above. For these new producers, current prices are probably only sufficient to cover existing cash costs and debt service. Debt service includes servicing the capital now tied up in the quota. Thus this group of people, while actually receiving the annual net benefits of the program as described in Tables 12 and 13, do not keep these benefits. The extra national average thirty-one thousand or twenty thousand, dollars per year, for broiler and egg producers respectively, is required to pay the interest on the capital tied up in the quota. As such, it is transferred to the owner of the equity in this asset. In some cases, this will be a bank or other financial institution, possibly a Federal or Provincial mortgage funding authority, or in some cases, the owner of the operation himself. In event of this last situation being the case, there is still no net benefit from the program for this producer as his net return on this particular investment will be no more than the market rate of return for assets of a similar nature. The cash benefits for these producers, upon purchase, are zero.

The real benefits for these producers only come when the power which they collectively hold over their commodity marketing board (to elect a new board) is used to elect people who will raise prices and thereby create cash benefits for this class of producers. This is a slow process depending largely on retirements from the industry to create increases in the number of new producers.

For this category of producers, it is no longer clear that the regulatory mechanism is supporting the maintenance of the family farm. If the family has to come up with an additional several hundred thousand dollars in order to purchase the quota, it is hard to see that this additional financial burden is favourable to new families entering the industry. On the contrary, it is probably more likely that parties such as large corporations,

whose capacity to assemble and commit large blocks of funds, such as are now involved in broiler and egg operations in Canada to these industries, are favoured.

Control of vertical and horizontal integration continues to be a benefit of the market regulatory process for this second category of producers. Such profits as still exist in production remain with producers, particularly the smaller ones.

Domestic self-sufficiency in food supply may now be threatened by the existing regulatory mechanism to the extent that it requires continuing substantial transfers from consumers in order for its continued operation. The regulatory mechanism has now reached a point where it is attracting considerable attention from these people. In order to respond to this concern, retailers and wholesalers are increasingly encouraged to seek cheaper sources of supply. These can now only come from outside Canada. It is thus possible that the continuation of the present regulatory mechanism, may in fact result in decreased domestic self-sufficiency in food supply hereafter.

The benefits of redistribution of income amongst producers and a reduction of uncertainty, together with equity of access to the available market, and a democratic process for determining who controls the producer's sector of the market, are all benefits that still accrue to new entrants to the industry. On the question of equity of returns to resources, it would appear that the quota market is operating in such a way as to equalize the return to the resources between the opportunities, particularly for capital, and to a lesser extent for labour within the regulated broiler and egg sectors and between these and other sectors of the economy.

Finally, it must be noted that the category of people described above as new producers, is a group whose number is

increasing. Conversely, the number in the original producer's category, is declining (as these people age and retire). Thus, the net benefits of the regulatory program for producers is, over time, tending to decline. Benefits are tending to be transferred to persons not involved in production: retired producers and suppliers of equity funds or other inputs for production.

OTHER REGULATED INDUSTRIES

Another way to evaluate the benefits accruing to broiler and egg producers in Canada is to compare these benefits with those occurring under the regulated industries.

There are not many situations where strict parallels with agricultural marketing cases discussed above exist. However, it is this author's opinion that some parallels may exist in the licensing of fish boats in the west coast fisheries and also in taxi licensing in major cities across the country. Data for the west coast fishery is presented in Table 17. Information related to taxi licensing is presented in Table 18.

The average annual benefit of regulation to a fish boat license holder in the west coast fishery is estimated to be \$9,500 per annum. This is about one-third of the annual average benefit to broiler producers in Canada and about one half the annual average benefit to egg producers in Canada. Compared to broiler and egg production in the same province, British Columbia, the fishery regulation provides benefits of about one-sixth to one-seventh that provided to broiler and egg producers.

The information in Table 18 shows benefits to individual taxi license holders, where the number of licenses is restricted, to be between \$1,280 per annum (Montreal) and \$6,400 per annum (Vancouver) in 1978.

TABLE 17: Value of Benefits of Regulation in B.C. Coastal Fishery. February 1980

| <u>Item</u> | <u>Unit</u> | <u>Number</u> |
|----------------------------------|-------------|---------------|
| Total net tons licensed | Tons | 41,500 |
| Number of producers ¹ | # | 4,193 |
| Value of License | \$/Ton | 6,000 |
| <u>Capitalization</u> | | |
| Total | \$ Million | 249 |
| Per Boat ² | | |
| Small | \$ | 24,000 |
| Average | \$ | 59,385 |
| Large | \$ | 120,000 |
| <u>Annual Income³</u> | | |
| Total | \$ Million | 39.8 |
| Per Boat | | |
| Small | \$ | 3,840 |
| Average | \$ | 9,500 |
| Large | \$ | 19,200 |

Sources: Canada Dept. of Fisheries and Oceans, Vancouver, Industry Discussions, and (12).

1. Class "A" Licensees: Non-Indian, December, 1979.
2. Small boat = 4 net tons, Average = 9.9 net tons, Large = 20 net tons.
3. Calculated for an opportunity cost of capital at prime rate plus one percent = 16%.

TABLE 18: Value of Taxi Licenses. Representative Locations by Province. Canada. 1978.

| | | BC Vancouver | Alta Edmonton | Sask Regina | Man Winnipeg | Ont Toronto | Que Montreal | NB Freder- icton | NS Halifax | PEI Char- lotte town | Nfld St. Johns |
|----------------------------|------------------------|-----------------|------------------|----------------|-----------------|----------------|-----------------|------------------------|---------------|-------------------------------|-------------------|
| Fleet: Size : Limited | # Y = Yes N = No | 363 Y | 910 N | 120 Y | 400 Y | 2,491 Y | 6,431 Y | 40 N | 829 N | 106 N | 340 N |
| Value of License | \$ 000 | 40 | | | 15 | 25 | 8 | | | | |
| Capitalization | | | | | | | | | | | |
| Total Value of Licenses | \$ million | 15 | | | 6 | 62 | 51 | | | | |
| Annual Income ¹ | | | | | | | | | | | |
| Total | \$ million | 2.3 | | | 1.0 | 10.0 | 8.2 | | | | |
| Per car (owner) | \$ | 6,400 | | | 2,400 | 4,000 | 1,280 | | | | |

Sources: Unpublished data from the Economic Council of Canada. Regulation Reference.

¹ Calculated for an opportunity cost of money equal to prime rate plus one percent = 16% p.a.

Data for the period October 1, 1978 to September 1, 1979 for Vancouver (20) suggest values of licenses higher than those shown in Table 18 for Vancouver. Data from the source suggests a weighted average value for a taxi license in this city at \$55,000. This is 37.5% higher than the Table 18 value. If all cities had similar increases in values to September 1, 1979 the benefits per license holder would be \$1,760 per annum in Montreal, \$5,500 per annum in Toronto, \$3,300 per annum in Winnipeg, and \$8,800 per annum in Vancouver.

The amounts of these benefits to taxi license holders are all considerably below the benefits accruing to egg and broiler producers in the same province as the cities noted. In Vancouver the 1979 taxi benefit is about 12% of the average broiler and egg benefits in B.C. In Toronto it is between 25% of the average broiler benefit and 40% cent of the average egg benefit. In Montreal the taxi benefit is about seven percent of the average broiler regulation benefits and ten percent of the average egg regulation benefit.

GOVERNMENT GOALS

The first goal of government identified above is that of getting reelected. It is difficult to evaluate the accomplishment or otherwise of this particular goal in respect of the regulation of broilers and eggs particularly. The Federal Minister of Agriculture during recent Liberal Party governments, has been a very strong proponent of marketing boards, and provincial ministers have tended to take positions supporting Boards. None, to the knowledge of this author, have taken a position contrary to the support of marketing boards. These positions are certainly conducive to producer's support for the government at the time of elections.

It is not clear what the impact of such stances by the ministers of agriculture and the governments in each of the

provinces and federally, is or has been on other sectors of the economy and other voter groups. The Consumers Association of Canada is the most notably vocal group voicing opinions contrary to those taken by the federal and provincial governments, but it is not clear that this position has yet been sufficient as to significantly influence voting at the polls. It is interesting to note, however, that the Federal Minister of Agriculture did, recently take a position of saying that prices of eggs in Canada as established by the Canadian Egg Marketing Agency, are now too high (19).

The goal of governments to reduce treasury expenditure to a minimum can be judged to be successful. By means of the existing regulations, a \$115.6 million per annum transfer program has been established at a combined federal and provincial treasury cost of (currently) only about one million dollars per year. Equally it is fair to say that the goal of minimizing the bureaucracy involved in the regulation of the markets for broilers and eggs in Canada has been achieved. There is a minimum of state bureaucratic intervention in the marketing process for these commodities. Self-government of the producers by the producers is also a goal which has been met, and responsibility for the regulatory system can, in part, be placed firmly on the producers.

The goal of self-sufficiency in food production appears to have been largely accomplished in the case of broilers and eggs, although some threats to the present degree of self-sufficiency are starting to appear. The goal of having a system which largely runs itself, has also been attained, but again, there are increasing signs that the system will require more attention from governments and ministries of agriculture in all provinces in the future.

Taken overall then, it is possible to say that government's goals have been met in substantial part, and that the present system is operating reasonably smoothly, and, one expects to the reasonable satisfaction of federal and provincial governments at the present time. However, there are signs that this condition cannot be expected to persist very far into the future. It appears that adjustments may be necessary in order to continue the attainment of these goals and some new goals which are starting to appear, and which may have to be adopted over the next five years.

GOALS OF OTHER PARTICIPANTS

From the limited information available regarding the goals of other participants in the regulatory system and the impacts on these persons of the present regulatory mechanisms, the following observations are made. Suppliers of inputs and services to producers of broilers and eggs are probably better off with the regulations than without them. Firm prices and controlled output from producers provide an environment which is favourable to steady cash flows from producers to the suppliers of the feed, chicks and pullets, and both debt and equity financiers of production units. These influences are largely favourable to the input sector.

Processors to the extent we have information on them at all, appear to be impacted negatively. Gross margins appear to have contracted under regulation and investment and reinvestment in this phase of the industry appears to be partially compromised as a consequence. A further consequence of this condition in the processing sector is that firms in this area of the industry are trying to purchase supplies from non-Canadian sources and that this is now, and likely will tend to continue to be, a threat to the existing regulatory mechanism.

Distributors and retailers are faced with similar problems to processors and, by and large, have been put in a position of having to pass through to consumers the additional costs created at the farm gate level by the higher prices charged by producers. For this reason, distributors and retailers also seek lower cost sources of supply, and, while challenges to the regulatory mechanism via this channel have been but a few to this point in time, it is probably not unreasonable to expect these to increase in the future.

Consumers, at the end of the marketing chain, are increasingly unhappy with the magnitude of the transfers being made by them to producer via the present regulatory system. This group of people is probably the most visible proponent of modifications to the system. Further, it is likely that their point of view will increasingly be forcefully stated in the future as the order of magnitude of the benefits transferred continues to increase. This would suggest that governments and the regulatory process will increasingly have to respond to this group of people in the future.

Chapter VI

ALTERNATIVES

This chapter examines a number of alternatives for the continuing regulation of broiler and egg production in marketing in Canada. The focus is the period 1980 through 1985.

In order to develop suitable alternatives, it is first necessary to define some of the parameters of the situation which we might expect to encounter during this period. This we do below.

THE REGULATORY ENVIRONMENT 1980 TO 1985

At the beginning of the decade we start from a position of substantial benefit from market regulation to broiler and egg producers across the country. From the data presented in Chapter IV it is evident that approximately 2300 producers in each of these two industries receive an annual benefit of 70 and 45 million dollars respectively; the total being in the order of \$115 million a year to the 4600 producers. Further, not only are there annual benefits, there are benefits by way of capitalization to those producers in the industry that decide to quit in any one year. These people take with them all the future benefits of the existing program, leaving their replacements with no direct monetary benefits from the program at all.

Starting from this point it seems likely that several matters will be of continuing concern over the next five years. Obviously quota values will be one of these concerns. From the point of view of the consuming public and potential new entrants to both these industries, it is likely that the concern will be expressed in the form of a complaint about quota values being too high.

From the point of view of those persons who have just recently entered the industry by purchasing a farm and/or quota, the complaints will be about the lack of benefits to them. The demand from this group will likely be for higher prices to create a tangible benefit for them. This will require increasing spreads between marginal revenues and marginal costs.

Finally, there will be those producers who have been in the industry since the start of regulation. These people will have been the beneficiaries of higher incomes in the amounts already identified, plus the potential capital benefits should they wish to quit. These people, it can reasonably be expected, will put most of their energies into protecting the existing benefits, and, where appropriate, supporting the new entrants in their appeal for increased benefits.

It is also expected that quota values will become more visible over the next five years. Quota values have now reached magnitudes where it is no longer possible to publicly deny the existence of quota values. Further, the economic pressures which give rise to these values focus heavily on marketing board decision-makers where the quota is not freely tradeable. The intensities of these pressures is such as to encourage the marketing board personnel to make decisions in favor of free trade in quota rather than retaining policies of denying the quota values existence and trying to bury it in whole farm sales. Once free trade is established then, of course, the quota value is quite explicitly visible.

Increased visibility is also expected as the level of benefits rises and entry becomes more attractive. The costs of achieving entry therefore become more visible.

The quota value itself may or may not become the focal point of regulatory policy in broiler and egg marketing over the

period. Instead it is possible that some of the underlying factors may be those in the limelight. It may, for example, be that the focus appears on price. Alternatively, the issue may be that of the amount of licenses issued for the marketing of either broilers or eggs. In the event that there is any threat whatever to the existing level of benefits, the family farm will undoubtedly be an issue which is brought out by the protagonists. Another underlying issue is the returns to resources. All producers do, of course, have to pay for the resources which they purchase from others; for example, feed and chicks. It is for those resources which they own, namely, their own management and labour, plus land and buildings for which they seek an additional return via the market place. These returns may also become a focal point in the future debate.

THE LIKELY DEMANDS

The demands for changing policy in respect of production and marketing of broilers and eggs in Canada over the first half of the next decade are most likely to come from the producers. Consumers are also likely to present strong cases in opposition to the producer demands.

The demands from producers are most likely to be heard from those whose benefits from the existing system are least. These are the new entrants, the people who have just recently purchased production units and quota. As noted above, there are no monetary benefits in the system for these people. For benefits to be created there must be an increase in the difference between marginal revenues and marginal costs for these producers. We can therefore expect them to press for higher prices. Existing producers can be expected to support these requests.

There may also be a demand for marketing board allocations of additional quota to all producers, particularly new producers.

Quota which does not have to be purchased delivers benefits at something like the rate per unit received by existing producers. This is another way for new entrants to obtain some benefits from regulation. Equally and at the same time, those already in the industry will not be averse to these demands for increases in free quota. Consequently, it might well be expected that the producer lobby will, throughout the period, lock solidly behind increases in price and increases in board issued new quota, or at the very least to lock behind no changes in either of these amounts.

Appearing in opposition to these demands we expect to find the consumers and would-be new entrants to these two industries. The consumers point of view is clear. Prices are above free market clearing levels, and should be lowered. Benefits such as stable and continuous supplies of product, attention to quality of product, any concern for family farms and producers incomes are secondary and may easily be overlooked in light of the present levels of cash costs and benefits.

The would-be new entrants to production will have a slightly different focus. Their focus will be on the cost of getting into the business. This is likely to result in statements of concern about the exclusiveness of the club of existing producers, how all the benefits go to these people, and how the situation is all attributable to existing producers and the government working in concert. Accordingly, this group of people will want to reduce the exclusiveness of the club and modify the entry conditions (until they're in the club, whereupon they can be expected to espouse views similar to those already in the club, including exclusiveness).

Against this anticipated set of demands we are now in a position to consider alternative policies.

RESPONSE LEVEL

The demands identified above as being likely to appear in the next five years will initially focus on the commodity marketing boards themselves. These exist for eggs in all provinces and for broilers in each of the provinces except Newfoundland. In every case, they are producer marketing boards. Responses in favour of existing producers are expected from these bodies. Any change in policy will therefore have to come from the provincial supervisory boards and the national supervisory council or governments themselves.

The composition of the super-boards and the council will be important in the sense that the sympathies of the members of these boards and councils will influence the policies which they invoke. If these boards and council are sympathetic towards the producer interest then the policy questions may more nearly come to focus at the government level. If a balance of sympathies exist in the super-boards and the Council policy determination might well occur at this level.

This observation raises the question of the function of the super-boards and councils. Producers and producer marketing boards often perceive the role of the super-boards and the National Council as being one of assisting them in protecting the producer interest. Equally it is sometimes suggested that the proper role of these boards and the council is that of protecting the public interest. This latter position is more difficult for a public body to take since the definition of the public interest is frequently not clear, often internally conflicting, and frequently difficult to focus for the purposes of obtaining public support. Further, this particular position has the shortcoming that it places these boards in the position of being advocates of a particular position (the public interest) in a situation where in fact their supervisory role more nearly

calls for an adjudicator's position. In respect of this last, the suggestion made by Kane (10) is notable.

Kane's suggestion is that the role of super-boards should be that of determining the public interest rather than representing it. In this case the supervisory board would work to discover the public interest at any point in time, by such procedures as debates between the proponents of different points of view, rather than by being advocates of what they see as the public interest. This process could give rise to policy determination at the super-board level.

The alternative to policy determination at the super-board level is policy determination at the government level. In this case, the proponents address the government directly. A policy is determined by the government and then administered by super-boards and commodity boards. This approach is probably the more traditional and, since there is a more direct link between the government to the electorate, this process may in fact be a better policy procedure than one which determines policy at the super-board level.

In either case, a suitable policy response must be defined and implemented to deal with each of the demands expected to be forthcoming over the next five years. There are several positions which might be adopted. The following discussion attempts to lay out some of the advantages and disadvantages of each of these several policy alternatives.

ALTERNATE POLICY RESPONSES

1. Respond to Producers

Under this policy alternative super-boards and governments respond positively to producer demands. This would suggest keeping the existing regulatory mechanisms and allowing increases

in prices over marginal costs as requested. This way existing producers and new producers who have just bought into the industry both receive benefits; the amount of these benefits increasing for both categories of producers over time. The obvious advantage of this proposal is that it gives the producers what they want.

A clear disadvantage of this alternative is that we can expect the value of quota to continue escalating under this alternative. The analysis presented earlier suggests that these values are already quite high, already beyond the control of producer marketing boards, and becoming increasingly visible. This policy alternative therefore offers little, or nothing, to policy makers in the way of satisfying those demands which will come from non-producers and the rest of the economy. This conclusion suggests the necessity to consider a second alternative.

2. Stabilize Benefits at Present Levels

This policy would require a monitoring of prices and quantities produced (both in total and per producer) together with an analysis of costs in order to determine that the difference between marginal revenue (price) and marginal cost (exclusive of any cost associated with purchasing quota) remain unchanged over time. Since quota value reflects directly all of these factors a simple monitoring of the quota values may be sufficient to indicate when decisions need to be taken pursuant to this policy. If quota values continue to rise then actions must be taken to hold or reduce price or to increase the supply. Holding prices and increasing supply may result in the transfer of product from the primary market (such as table eggs), to the secondary market (such as breaker eggs), with the lower prices being taken in the secondary market. If so, the potential savings in costs of such a policy may only accrue in the secondary market. This distinction should be recognized.

One consequence of this policy, assuming it to be maintained over a period of time such as the five years suggested above, is that benefits would accrue to fewer and fewer producers over time. This would be so because as time elapses so does the number of turnovers in farms increase and as each turnover occurs capitalization of future benefits of the program would be made in favour of exiting producers. The new producers replacing them would receive no direct monetary benefits and, over time, this number of producers in this group would naturally increase. At the end of a whole generation when all farms have been turned over there would be no benefits left in the program. This would be so notwithstanding the fact that prices would still then be above marginal cost by the same amount as they are currently.

This policy clearly discourages entry because there are no new regulatory benefits to be had. It would encourage consolidation of existing units. The latter would occur in circumstances where existing and/or new capacity allowed for lower marginal costs than currently exist on an industry-wide average basis. It would be necessary, to be consistent with this policy, to de-emphasize opportunities for young farmers or new entrants to the industry. Their opportunities would be restricted to normal returns to resources and an opportunity to share in any growth in markets.

Consumers would benefit from this program because prices of broilers and eggs would henceforth only reflect changes in producers real costs plus the existing margin of benefits. There would be no increases in the amount transferred annually from the consumers to producers under this policy.

This policy would require the collection of certain data in order to effectively regulate the industry in respect of its pricing and quota policies. First it would be necessary

to have a mechanism to track quota values, that is, to create and keep a record of the prices paid by producers who purchase quota. It would also be necessary to know something about the conditions prevailing in that market, that is, whether whole farm sales are involved or whether marginal increments quota are being traded, the circumstances under which those trades took place, the definition of the quota traded, and other factors which influence the value obtained. If quota values themselves could not be monitored, as is the case in those provinces not allowing free trade in broilers and eggs quotas, then a "one-off" position would have to be adopted. This would involve periodic, if not constant, reviews of marginal returns relative to marginal costs in each of the provinces. This may be difficult as, while the prices are generally fairly visible and readily reported, costs, and particularly marginal costs in an industry having 2300 individual producers are much more difficult to observe or determine. Most analysts and policy-makers are already aware of this problem. Nevertheless, in face of policies of no trade in quota by itself this alternative would have to be explored and developed into a satisfactory degree of finesse.

There may also be some difficulties associated with the fact that there are presently different levels of benefit in each of the provinces. At the present the focus of reviews of benefits and costs of market regulation for broilers and eggs is taking place mainly at the national level. Here the National Farm Products Marketing Council is attempting to set boundaries on the benefits which are allowed to producers through price, on a national basis. Within this national basis, there is considerable variation in costs (as reflected in quota values). The implementation of a national policy may not be sufficient in the future. This may particularly be true as in those provinces where the greatest benefits currently accrue. In this case, attention would have to be paid to the policies of governments, super boards, and

commodity boards at the provincial level.

3. Respond to Consumers

In order to respond to consumer concerns, a reduction in the amounts transferred from consumers to producers would have to be achieved. In the extreme all transfers would be eliminated.

In order to obtain the extreme position all controls over price and quantity supplied would have to be removed. This policy would therefore result in a return to free market conditions in the marketing of broilers and eggs. There would then be some consequent loss of stability in prices and production. Wider fluctuations of price could be expected, the number of producers would likely decline as consolidation would be encouraged. It is not immediately clear whether integration in the industry would follow but it seems likely unless regulatory powers were retained to limit integration. Such an extreme position is unlikely. What is more likely is that there is some possibility of moving in that direction, thereby lowering costs to consumers and reducing benefits to producers.

This intermediate type of policy would still require that either prices be reduced relative to marginal costs or supplies increased. The first alternative addresses directly the consumers concerns over price levels. The second alternative may result in a transfer of cost savings from the primary market to the secondary market, as noted above under Alternative 2. It is therefore less direct in its effect. This policy would also require a monitoring of the difference between price and marginal costs. The same problems as discussed above under policy Alternative 2 would exist in this case. Equally, to the extent that quota values are visible and can be monitored this task would be simplified.

Taking away benefits which are already in position is a difficult policy to implement. Consequently, this policy would require considerable fortitude on the part of the policy decision-makers and their administrators. It is unlikely that such a policy would be adopted by any group (commodity or super board) which is dominated by producer interests.

This last observation suggests that pursuit of this particular policy may require a change in composition of supervisory boards, the National Farm Products Marketing Council, and possibly the commodity boards themselves. Any changes desired in the composition of the super boards and the council can be relatively easily undertaken since the composition of these boards is determined by appointment under the provincial and federal legislation respectively (although there are statutory limitations on the composition of the national council). Should a change in the composition of the commodity marketing boards be contemplated it should be realized that all of these are producer bodies at the provincial level and substantially producer bodies at the national level. Members are elected or appointed to their positions by producers and are responsible directly to producers. A change to include representation from interest groups other than producers on these boards would be fundamental and would call into question the whole notion of producer marketing boards across the country.

The main impact in consumer benefits pursuant to this particular policy can be gauged from inspection of Tables 15 and 16. The per unit gains are modest at best and widely dispersed. This suggests that the thanks from adopting this policy will be equally modest and the antagonism towards it much greater as is indicated by the order of magnitude of benefits per producer shown in Tables 12 and 13.

4. Dealing with the Capitalization Problem

As has been noted above, one of the problems with the existing system is that those people who leave the industry can take with them the future benefits of being a member of the industry. This leaves those who replace them without monetary benefits. One way to deal with this situation is to stop the problem at its source, namely, to see if there is an alternative to allowing the people who leave the industry taking with them the future benefits of regulation by selling their quotas.

One way to deal with the problem is simply make the license (quota) non-transferable. In other words, when an existing producer quits the industry his license reverts to the board and is cancelled. He cannot sell it to another individual. This will certainly deal with the question of capitalizing out of the industry. With the license no longer saleable the person exiting cannot realize from its sale. The problem, however, just shifts as, assuming that the production represented by the quota is still required, the board will now have to allocate this amount of quota to someone else. It is to be expected that the board will be faced with a large number of applications. Some will be from people who want to add additional production on their existing units. Other applications will be from people who wish to enter the industry. In essence, the board will be faced with the question of to whom shall it give this benefit. This decision is likely to present difficulties for boards particularly as the magnitudes of the benefits increase. To the extent that boards continue to make this decision it is likely that existing producers will be favoured. A second consequence of this policy could be that leasing or renting quota would replace sales of quota. This way present quota holders could retain the asset while ceasing to be a producer.

The major problem with this policy proposal is that it does not address the underlying economic pressures associated with quota values. It just endeavours to substitute one allocation mechanism for another.

5. Focus on Individual Personal Income

The need for the benefits of regulation derive from an inadequacy of personal (operator) income from farming under certain circumstances (declining prices). One alternative to deal with this situation is to address the question directly. This can be done by, for example, making payments directly to those persons whose income is deficient.

One of the first problems faced by a policy such as this would be that of determining who qualified to receive a benefit. Further, if proof of income deficiency is required, as it might well be, then income supplementation would have to be an ex-post facto event. Problems of timeliness are surely involved. There is also a question of the amount of the benefit. At what point is a person's income too low and up to what level should it be made? There is frequently general agreement on the desirability of income supplementation. However the questions of the boundaries in the case of egg and broiler producers would clearly require a period of debate, discussion and clarification before its implementation.

One way to deal with these problems would be to give all producers the same amount of money and to make it taxable for income tax purposes. This would have the effect of supplementing the incomes of all producers but having the greatest benefit go to those having the lowest earnings from egg or broiler sales. As a result of the progressive income taxation, those who were already well off from product sales would lose most of the benefit

to taxation. The example of an income supplement of \$20,000 per egg producer is presented in Table 19.

This analysis suggests that, under this policy, the average egg producer's income situation would be essentially unchanged. Benefits to small producers would increase substantially. Benefits to large producers would decline.

Several problems may be encountered if this policy is implemented. First, there may be an objection to everybody who is an egg producer receiving an income supplement of \$20,000 even though for the larger producers it would result in a decrease in disposable income. There may also be problems of whether or not this benefit is to be paid to individual egg producers on the basis of their personal income or whether, because the family farm concept is important, family income is that which should be considered.

Other potential problems include the definition of an egg producer. In this case, if we maintain the existing definitions of egg producers, any person raising more than 200 to 500 birds (depending on province of residence) would be eligible to receive the income supplement. This could start a trend towards part time farming in egg production, possibly a loss of quality in the product from these small units, and a general loss of efficiency in production and marketing in the egg industry. In order to deal with this particular question it would be appropriate to raise the minimum size to qualify. The logical extension of this, however, is simply to raise the minimum size to the level where market returns are sufficient to provide an adequate income from the volume of eggs sold. In this case there would be no need for income supplementation.

This policy would also shift the cost program from

TABLE 19: Example of a Lump-Sum Payment of \$20,000 to all Egg Producers

| Item | Producers | | |
|--------------------------------------|-----------|---------|----------|
| | Small | Average | Largest |
| Number of birds | | | |
| Egg Production ¹ | 500 | 9,300 | 50,000 |
| (dollars) | | | |
| <u>Present Policy</u> | | | |
| Revenues from Egg Sales ² | 7,780 | 144,700 | 778,000 |
| Cash Costs ³ | 5,835 | 108,525 | 583,500 |
| Income from Egg Production | 1,945 | 36,175 | 194,500 |
| Income Tax ⁴ | - | 12,560 | 108,945 |
| Income After Tax | 1,945 | 23,615 | 85,555 |
| <u>Income Supplement</u> | | | |
| Revenues from Egg Sales ⁵ | 6,780 | 126,108 | 678,000 |
| Income Supplement | 20,000 | 20,000 | 20,000 |
| Income Before Tax ⁶ | 20,945 | 37,583 | 114,500 |
| Income Tax ⁴ | 5,545 | 13,279 | 57,345 |
| Income After Tax | 15,400 | 24,304 | 57,155 |
| <u>Change</u> | 13,455 | 689 | (28,400) |

¹ From Table 9.

² At 77.8¢/dozen (Feb. 23/80 week national weighted average price for eggs in Canada (1), #8, 1980). 20 dozen eggs/bird/year.

³ At say 75% of sales.

⁴ 1979 rates. One personal deduction (\$2,650). Basic federal tax plus provincial tax at 50% of federal tax.

⁵ At price 10¢/dozen (the average amount of the present producer benefit) lower.

⁶ Cash costs unchanged.

consumers to the taxpayers. This would be advantageous from the point of view of consumers who, in the present situation, are effectively taxed regressively. Under this policy proposal they would be taxed progressively on their incomes to provide the funds for the treasury from which to make income supplement payments to egg and broiler producers.

This policy would maintain an over-commitment of farm labour and management resources to egg and broiler production. There would be clear encouragement for small producers to remain in the industry when their economic returns would not otherwise justify it.

6. Deficiency Payments

An alternative to the lump sum payment of Alternative 5, is a deficiency payment. This payment would be an amount of money paid per unit of product in order to make up returns from market realizations and market prices to some desired level of return. In this case the market operates without any regulation over price and quantity. It clears and producers take whatever income or the lack of it is generated by these market conditions. After they have completed production they file an application for a deficiency payment whereupon they are allocated so many cents per dozen on their egg sales or so many cents a pound on their broiler sales. This approach is similar to that already adopted for some other commodities under the (federal) Agricultural Stabilization Act.

An advantage of this system is that it shifts the burden of income support from consumers to tax payers. As such it can be imposed on a progressive basis rather than the regressive basis of the existing system.

Further, the dollar value of benefits is known and can

be monitored. Capitalization of the benefit is likely reduced since the certainty of whether or not the program can be continued from one government fiscal period to the next will likely be uncertain. Any capitalization will however not be explicit because no licensing is involved. Any capitalization which does get expressed will be in respect of the most limiting resources to that type of production. In the egg and broiler cases this may well be land and poultry barns.

A disadvantage of this policy is that it would require the size of the bureaucracy to increase. Producers would have to file sales records and periodic auditing of these plus major exercises in benefit determination for treasury payments would all have to be made. Another change would be that producer control over the production and marketing of these two commodities would be destroyed, or at least it would no longer be necessary. Uncertainty might well increase. Payments become an ex-post facto source of income. This would not be as attractive as income from sales which occurs on an "as made" basis. Finally, there are no benefits to non-qualifiers. Under the present system those who don't qualify to be members of the scheme also gain benefits by virtue of the umbrella established by the pricing authority for eggs and broilers in each province, i.e., producers having less than the minimum number of birds can sell their eggs or broilers at prices very similar to those obtained by regulated producers and thus obtain the benefit as well. Under the deficiency payment alternative these people would not qualify for benefits.

7. Increase the Amount of Quota Outstanding

Quotas have taken on value because they are scarce. This scarcely creates a benefit, provided only that marginal revenues are expected to exceed marginal costs over the foreseeable future. One way to reduce the value of quotas is to increase the supply of them. This can be done in either or

both of two ways: issue more quota in those provinces having the highest quota values, or allow trade in quotas between provinces.

The issue of more quotas (without increase in market size) is unlikely to be undertaken by producer marketing boards or agencies. To do so would increase production, bring pressure to bear on existing prices, and generally tend to dilute the existing level of benefits to producers. Inelastic demands for product suggest lower total returns for higher volumes of output and thus some of the newer producers (those with the higher costs) may be threatened as to their continued viability in the industry.

Interprovincial trade in quotas is another alternative, although it too has some limitations. The situation is examined in terms of a potential purchase by a producer of broilers in British Columbia of a quota presently held by broiler producers in Quebec.

According to the information reported in Table 10, broiler quota could be purchased in Quebec in February 1980 for about \$6.00 per bird. A broiler producer from B.C., where he is faced with paying \$12.00 per bird, would willingly pay \$6.00 per bird, and more (up to the \$12.00 per bird) to the Quebec producer to obtain the quota. That this trade would occur if allowed is not in doubt. The Quebec producer could obtain from the sale of his quota a sufficient amount to either cover the extra costs of producing a smaller amount of broilers in Quebec, or going out of business. The B.C. producer would be happy to get the quota at a price lower than the going price in B.C.

The major effects would be in the related industries. Feed suppliers, hatcheries, and processors in the selling

province would lose volume and be worse off. Feed suppliers hatcheries, and processors in the buying province would be better off. Truckers, who presently haul some products from Quebec to B.C. would be worse off.

Overall, production and marketing efficiency would tend to improve under this policy. In the short run over-capacity in the related industries of the selling province would exist. In the longer run, adjustments would occur so that these resources were efficiently located for production and marketing adjacent to market demand.

It is not clear that consumers in Canada would be advantaged by this policy. The aggregate amount of production would remain unchanged. What would happen would be a redistribution of costs and benefits of regulation from the selling provinces to the buying provinces. Given the relative number of consumers in each of the potential selling provinces compared to the number of consumers in the potential buying provinces, and, adding the concerns of the allied trades in the same provinces, the implementation of this policy seems likely to be contrary to the public interest.

As well, there would be a jurisdictional question, namely: how could a Quebec provincial production quota be used in British Columbia?

8. Increase Imports

Another alternative to continuing the present pattern of regulation is to increase imports.

This would require raising the existing limits on imports, allowing substantial supplementary import permits, or removing import restrictions completely. All three actions, or

any one of them could be taken by the federal government. The effect would be to increase supply and thereby apply downward pressure on domestic chicken and egg prices. Most of the impact would likely be in Ontario and Quebec where, historically, most of the imports of broilers and eggs (from the United States of America) have been dispersed.

Producer marketing boards are generally loath to cut prices (at the producer level). Faced with competition in the retail market place they more often cut production and try to retain producer prices at existing levels. If this strategy was followed in face of increased imports, consumers would obtain no benefit as prices to them would remain unchanged on the bulk of their purchases. Importers, wholesalers and retailers could benefit; importers through higher volume, wholesalers and retailers through higher margins. Domestic producers, their suppliers and processors would all be worse off due to the lower volumes of product handled.

Interestingly, the value of production quotas may go higher, temporarily, under this policy as producers bid higher prices to obtain quotas to allow them to use the existing production capacity made surplus by the cutback in total allocations. This could occur at a time when fewer producers are willing to sell (except to retire) due to the lowered throughput in their own operations. The problem of quota values appears to be **exacerbated** in this case.

Alternatively, producers cut price to meet the costs of imports. In this case, benefits would accrue to consumers as the price of all product, domestic and imported, would be lower.

The effect of allowing an increase in imported product, thus depends on the producer response. History, as noted above, favours the quantity control option by producers.

Chapter VII

CONCLUSIONS

The analysis in this report suggests the following conclusions.

1. The production and marketing of both broiler chickens and eggs is now effectively controlled by a system of producer controlled provincial marketing boards and national agencies. The main focus is on the supply of products to the domestic market but there are also controls on producer prices in all provinces, and nationally for eggs, and there are also regulations governing other aspects of these two industries.
2. The egg industry is the more highly regulated industry of the two. The cost of this regulation is estimated to be about \$56 million per year. This cost is paid largely by consumers through higher prices for table eggs. The costs per consumer are estimated to be about \$2 per person per year or, on a per dozen of eggs basis, about 13 cents. These amounts vary by province of residence. Producer benefits from market regulation in eggs are an annual average income of about \$20,000 per producer. Larger producers receive more, and the smaller producers less, than this amount under existing regulations. The range across the province in this average amount received is \$4 to \$70 thousand per producer.
3. These benefits accrue to producers in the industry and as well to any producer who has quit the industry. A producer who has quit the industry is able to take with him all future benefits accruing to him from the market regulation program by way of capitalizing his interest in the program through the sale of his quota at the time when he quits. This leaves no monetary benefits for those producers who replace him.

4. Replacement of the production from a producer who quits the industry is generally necessary in order to continue supplying the market. However, since this production no longer receives any monetary benefit of regulation its owner commonly seeks this benefit and this leads to escalation in product prices and the amount of benefits accruing to regulation. This observation leads to the conclusion that the existing structure of egg marketing regulation is inherently inflationary.

5. Broiler production in Canada is also well controlled by the producers in the industry. Provincial marketing boards operate in all except two provinces (P.E.I. and Newfoundland). A national marketing agency is also in position; is operated by producers, and is currently working hard to gain control of both price and quantities of chicken marketed at the national level.

6. Regulation in the broiler industry is estimated to cost about \$77 million per annum. This amount is obtained through higher prices to consumers who pay an average estimated nine cents per pound, or about \$3 per person per year, in order to support the system. These costs generate benefits to producers of broilers in Canada of an average of about \$30,000 per producer nationwide with a range of \$11,000 to \$65,000 per producer per annum in the average amount received by producers.

7. The structure of market regulations for broilers is similar to that for eggs. It results in the same kind of price escalation pressures as observed for eggs as broiler producers are allowed to capitalize out of the industry by selling their quotas too.

8. The regulatory mechanism for both broilers and eggs is therefore of benefit only to the existing producers. There is no provision in it to benefit future producers and, in fact, the existing programs create liabilities for future producers in the

sense that they must purchase quota in order to operate the broiler and egg production units. This purchase creates a real cost for these producers, a cost which becomes a liability to them in the case of any proposed or planned modification to the system.

9. The major policy alternatives are: to stay with the existing system (do nothing), stabilize benefits at the currently existing level, or reduce benefits. These three alternatives apply to policies applicable within the existing framework. Two other alternatives exist, namely shifting to deficiency payments or making income supplementary payments to need. These would both require changes to the structure of regulation and the manner of assembly and distribution of benefits. In this sense they are the more radical alternatives. Two other alternatives are: to increase the supply of quotas and to increase imports of broilers and eggs.

10. Continuation of existing policies for broiler and egg regulation in Canada implies increasing costs to consumers and increasing benefits to producers. This policy alternative is expected to make the amount of the benefits increasingly visible as quota values in both industries continue to rise. At some point in the future the question of "how high is high enough" will have to be addressed. Both consumers and would-be entrants to these two industries are expected to want answers.

11. Stabilization of benefits at their present level or a reduction in the amount of these benefits are alternatives which will appeal to consumers. They will however be difficult to attain within the existing structure as consumers are poorly represented and producers are well and strongly represented.

12. A switch to deficiency payments offers potential for continuing the existing benefits at the present levels. It

would create a treasury cost as opposed to a consumer cost and would likely require an increased bureaucracy in order to process the necessary applications and claims for benefits.

13. The income supplement approach deals more specifically with the circumstances of those producers whose incomes from broiler or egg production is insufficient. It does however raise the question of "why make payments to egg producers or broiler producers (as opposed to others in society)". It also creates very explicit questions about the amount of income supplementation and several difficult questions about what constitutes income and what is a reasonable level of income for egg and broiler producers in Canada.

14. The question of increasing the supply of quotas in both industries has also been examined. An increase in the absolute supply of quotas, without any increase in market demand, is considered unlikely within the existing system. Allowing free trade in quotas between provinces, while potentially increasing supplies of quotas in some provinces (and decreasing it in others), is judged likely to be acceptable to producers. It is not considered likely, however, as there would be effects on allied industries and consumers which are unlikely to enjoy widespread support.

15. Increasing the amount of imports of product into Canada has potential for reducing quota values and consumer costs of the existing regulatory mechanism. Its effectiveness, however, depends on the producer response, which, it is anticipated, will be in the direction of thwarting any such effect by cutting production rather than prices.

16. Taken overall, the findings of the paper focus clearly on the structure of regulations in these two industries. That

structure gives most of the power to producers and is inherently inflationary. Given this situation and the current level of impacts of regulation on the rest of the Canadian economy, it appears likely that this structure may have to be modified during the first half of the 1980's decade considered here.

17. The trend in pressures existing and anticipated in the system are away from producer control, towards control by a more broadly representative group of people. This type of control can be implemented within the existing system by changing the mix of points of view represented by persons appointed to provincial super-boards and, to the limits imposed by the legislation, the National Farm Products Marketing Council. Concurrently, the powers of these supervisory bodies would have to be increasingly supported by governments.

18. If changes of this type are not made, the structure of regulation itself is likely to be increasingly assaulted. In this case, it is expected that pressure will increasingly focus on the provincial marketing acts and the schemes thereunder as well as the (federal) Farm Products Marketing Agencies Act. Legislators at both levels of government will increasingly be called upon to act.

Chapter VIII

RECOMMENDATIONS

As a consequence of this study the following recommendations are made:

1. That the composition, powers and support given provincial super-boards and the National Farm Products Marketing Council nationally, be reviewed and to the extent it is thought appropriate, these bodies be made more representative of the public interest in market regulation,

and
2. That, for the longer term, alternative means of providing income support to broiler and egg producers, such as by direct payments or deficiency payments, be more extensively explored.

REFERENCES

1. Agriculture Canada. Food and Agriculture Marketing Branch. Marketing Services Division. Poultry Market Report. Weekly. 1979. #52. January 4, 1980.
2. Agriculture Canada. Food and Agriculture Marketing Branch. Marketing Services Division. Poultry Market Review. Annual.
3. Agriculture Canada. Food Market Analysis Division. Policy Planning and Economics Branch. News Release 80. No. 3. "Agriculture Canada Food Price Index" Ottawa. March 26, 1980. Table 4.
4. Canada. National Farm Products Marketing Council. Ottawa. Annual Report.
5. National Farm Products Marketing Council. Ottawa. Pers. Comm.
6. Canadian Poultryman. Farm Papers Ltd. New Westminster, B.C. Monthly.
7. "Canada's Who's Who in the Poultry Industry 1979". New Westminster, B. C. Farm Papers Ltd. June 1979.
8. Canadian Federation of Agriculture "How Farmers Market Eggs". Ottawa. June 1979. 28 pp.
9. Funk, Thomas F. and Martin T. Rice. "The Impact of Marketing Boards on Agribusiness: The case of the Ontario Broiler Industry". Guelph, Ontario. University of Guelph, Department of Agricultural Economics. Res. Bull. AEEE/79/8. Aug., 1979. 107 pp.
10. Kane, Greg. "Consumer Advocacy and Regulatory Commission" In Research Seminar Series. Vol. 3. Fall 1978/Spring 1979. Canadian Transport Commission. Ottawa. 1979.
11. Skogstad, Grace. "The Farm Products Agencies Act: A Case Study of Agricultural Policy", Canadian Public Policy. VI:1. Winter, 1980.
12. Sinclair, Sol. "A Licensing and Fee System for the Coastal Fisheries at British Columbia" Report. 2 Vols. Canada Dept. of Fisheries and Oceans. Vancouver, B.C. December, 1978.
13. Statistics Canada. "Farm Cash Receipts". Cat. No. 21-001. Ottawa. Monthly.

14. Statistics Canada. "Estimated Population for Canada and the Provinces". Cat. No. 91-201. June, 1979.
15. Statistics Canada. 1976. Census. "Families by Size." Cat. No. 93-821.
16. Statistics Canada. "Production and Stocks of Eggs and Poultry". Cat. No. 23-003. Ottawa. Monthly.
17. Statistics Canada. "Production of Poultry and Eggs". Cat. No. 23-202. Ottawa. Annual.
18. Statistics Canada. "Retail Trade". Cat. No. 63-005. December 1979. Ottawa.
19. Vancouver Sun. "We're Paying too much for eggs, Whelan says". Vancouver, B.C. Thursday, March 27, 1980.
20. White, Kayce. "Politicking foils attempts to roll out more taxis." Vancouver Sun, Vancouver, B.C. Sat. Jan. 5, 1980. p. A-9.

BIBLIOGRAPHY

- Agricultural Economics Research Council of Canada. "The Cost of Canada's Egg System", Ottawa, January, 1979. 98 pp.
- Arcus, Peter L. "The Values of Milk Quotas in British Columbia: An Economic Analysis". Can. J. of Ag. Econ. 26(2). 1978. p. 62-71.
- British Columbia. Legislative Assembly. Select Standing Committee on Agriculture (1978). Marketing Boards in British Columbia. Phase II Research Report, Vol. II, III (Victoria: Q.P.).
- a. An Assessment of the Rationale for Marketing Boards in British Columbia.
 - b. Marketing Boards in Alberta and Marketing Orders in the Pacific Northwest. Phase II Research Report, Vol. V. (Victoria: Q.P.).
 - c. Primary Agriculture in British Columbia: Broiler Production 1977.
 - d. Primary Agriculture in British Columbia: Egg Production.
 - e. Summary of Presentations made at the Public Hearings, May 30, 1977 to January 17, 1978.
 - f. Supply Management and Quota Values in Primary Agriculture.
- Canada. National Farm Products Marketing Council. "Investigation into the Canadian Egg Marketing Agency: Structure and Operations Report". Ottawa. Dec. 14, 1979.
- Canada: Radio-Television and Telecommunications Commission.
- a. Press Release. Bell Canada, Inverse in Rates. Ottawa. 10 August, 1978.
 - b. Public Notice. Inquiry into Telecommunications Carriers' Costing and Accounting Procedures. Phase II: Information Requirements for New Service Target Filings. Ottawa. Aug. 11, 1978.
 - c. Telecommunications Decision. CRTC 77-5.
 - d. Telecommunications Decision. CRTC 78-7.
 - e. Telecommunications Decision. CRTC 79-16.

Canadian Federation of Agriculture: "Quotas". Revised ed.
Ottawa, Aug., 1979. 189 pp.

Cayer, A. "An Evaluation of the Canadian Egg System".
Ottawa. Canadian Egg Marketing Agency. Nov. 1979. 92
pp.

Hiscocks, G.A. (1972) "Theory and Evolution of Agricultural
Market Regulation in Canada" Canadian Farm Economics 7:
June, 20-26.

Economic Council of Canada. Regulation Reference.

a. "Toward a Research Agenda"

W.T. Stanbury, Sept. 1, 1978.

b. "A Preliminary Report to First Ministers"

Chairman, November, 1978.

c. "Update". February 12, 1979.

Forbes, Jim. "The Produce Price Riddle". Vancouver, B.C.
Vancouver Sun. Nov. 7, 1979.

Letter to Editor, Vancouver Sun, Vancouver,
B.C. Dec. 11, 1979. P. A-5.

Hartle, Douglas G. "Public Policy Decision Making and Regula-
tion." Ottawa, Canada. Institute for Research on Public
Policy. 1979.

Lane, S.H. "Policy Issues Related to the Effects of Quotas on
Resource Adjustment in the Farm Sector". Can. J. Ag.
Econ. Proceedings Issue, 1979. p. 11-19.

Lane, S.H. and M.A. MacGregor. "Quota and Quota Values".
Guelph, Ontario. School of Agricultural Economics and
Extension Education. O.A.C. University of Guelph.
February 1979. 121 pp.

Loyns, R.M.A. (1976) "The Role and Impact of Marketing
Boards on Agricultural and Food Stability" Proceedings of
the 1976 Workshop of the Canadian Agricultural Economics
Society on New Developments in Agricultural Stabiliza-
tion, (Quebec City: March).

Loyns, R.M.A. "Marketing Boards: The Irrelevance and Ir-
relevance of Economic Analysis." Paper presented to the
Third Triennial Canadian Marketing Workshop, Faculty of
Administrative Services. York University, Toronto,
Ontario. June, 1979.

Loyns, R.M.A. "Farm to Food Prices". Discussion Paper No.
157 prepared for The Centre for the Study of Inflation
and Productivity. Published by the Economic Council of
Canada. Ottawa. January, 1980.

- Martin, L. and C. Holliday (1977) "The Output Decision Process of Canadian Broiler Marketing Boards". Canadian Journal of Agricultural Economics 25: July, 45-60.
- National Public Policy Education Committee (U.S.A.) "Marketing Alternatives for Agriculture: Is There a Better Way?" Ithaca, N.Y., N.Y. State College of Agriculture, C.E.S. Cornell University, Nov., 1976. 13 four-page papers.
- Ontario Economic Council. "Government Regulation: Issues and Alternatives." Toronto, 1978.
- Ontario. Ministry of Agriculture and Food Economics Branch. "Economic Information: The Egg Industry in Ontario." Toronto. June 1979.
- Piggott, R.R. "Quantifying the Incentive for "Black-Marketing" in the Presence of Agricultural Selling Cartels". University of New England, Armidale, Australia. Contributed Paper for the 24th Annual Conference of the Australian Agricultural Economics Society. Adelaide S.A. Feb. 12-14, 1980.
- Proulx, Yvon. "Marketing Boards in Canada. Role, Impacts and Some Elements of Performance". Paper No. 15. Plenary and Invited Papers. 17th International Conference of Agricultural Economists. Banff Canada. Sept. 3-12, 1979.
- Saskatchewan. Natural Products Marketing Council. "Marketing Boards in Agriculture." Pamphlet. 4 pp. Regina. 1979.
- Sinclair, Sol. "A Licensing and Fee System for the Coastal Fisheries at British Columbia" Report. 2 Vols. Canada Dept. of Fisheries and Oceans. Vancouver, B.C. December, 1978.
- University of Manitoba (1972). Market Regulation in Canadian Agriculture. Occasional Series No. 3. (Winnipeg: Department of Agricultural Economics and Farm Management, University of Manitoba.)
- University of Manitoba (1977) Competition and Public Policy on Competition in the Canadian Food Industry, R.M.A. Loyns and R.L. Louks (eds.) Occasional Series No. 7 (Winnipeg: Department of Agriculture Economics and Farm Management, University of Manitoba.)
- Walker, H.V. (1968) "Marketing Boards and Quota Policies for Canadian Farm Products: An Appraisal of Performance" Canadian Journal of Agricultural Economics 16: June, 1-12.
- Warnock, John W. "The Farmer: Squeezed Two Ways." Vancouver Sun, Vancouver, B.C. Nov. 28, 1979. p. A-5.

Wilkinson, J. Keith, and Hugh V. Walker. "Interregional Resource Adjustment Under a Quota System: Policy Issues." Can. J. Ag. Econ. Proceedings Issue, 1979. p. 20-24.

APPENDIX A

Acts, Regulations, Proclamations and Agreements providing for the regulation of broiler and egg production and marketing in Canada. March 1980.

UNITED KINGDOM

The British North America Act, 1867. 30 and 31 Victoria, C.3 as amended.

CANADA

Farm Products Marketing Agencies Act. S.C. 1970-71-72. C.65.

The Canadian Chicken Marketing Agency Proclamation. Canada Gazette. Part II. Vol. 113, #4. SOR/DORS/79-158. Feb. 12, 1979.

The Canadian Egg Marketing Agency Proclamation. Consolidated Regulations of Canada. 1978. C.646.

Farm Products Marketing Agencies Act. Regulations Consolidated Regulations of Canada. 1978. Chapters 648, 649, 651-657.

BRITISH COLUMBIA

Natural Products Marketing (British Columbia) Act. R.S.B.C. 1979. C.296.

Natural Products Marketing (British Columbia) Act Regulations. B.C. Reg. 328/75.

British Columbia Broiler Marketing Scheme, 1961. B.C. Reg. 188/61 as amended by 7/62, 8/62, 95/63, 204/70, 205/70, 136/72, 305/72, 14/73, 102/73 and 543/78.

British Columbia Egg Marketing Scheme, 1967. B.C. Reg. 173/67 as amended by 136/68, 100/70, 285/70, 6/71, 111/72, 297/72, 166/74, 316/76, 448/76, 105/77, 306/77, 90/78, 383/78, 574/78, and 86/79.

ALBERTA

The Marketing of Agricultural Products Act. R.S.A. 1970 C.225 as amended.

Alberta Broiler Growers' Marketing Board (Marketing of Broilers). Alta. Reg. 354/72 as amended by 107/77, 192/77 and 421/78.

Alberta Broiler Growers' Marketing Plan, 1965. Alta. Reg. 17/66 as amended by 158/68, 248/73, 57/79, 337/72, 2/75, 323/77 and 173/78.

Alberta Egg and Fowl Marketing Plan, 1967. Alta. Reg. 156/68 as amended by 271/70, 386/70, 24/72, 281/72, 165/73, 249/73, 311/73.

Poultry and Eggs Production Controls 239/77.

Marketing of Eggs and Fowl 58/79 as amended by 339/79.

Egg Marketing Plan (Federal-Provincial). Alta. Reg. 223/73.

Producer Boards (Operation) 48/78.

SASKATCHEWAN

The Natural Products Marketing Act. R.S.S. 1978. C. N-2.

Natural Products Marketing Act Regulations. Sask. Reg. 301/77.

Saskatchewan Chicken Marketing Plan. Sask. Reg. 48/66 as amended by S.R. 257/74.

Saskatchewan Commercial Egg Producers' Marketing Plan, 1976. Sask. Reg. 270/76.

MANITOBA

The Natural Products Marketing Act. R.S.M. 1970 C. N-20 as amended.

Manitoba Chicken Broiler Producers' Marketing Plan. Man. Reg. N.20-R.7 as amended by 92/73, 106/73, 115/73, 91/75, 104/75, 233/76, 234/76 and 194/78. Regs. 105/78 and 162/78 also relate.

Manitoba Egg Producers' Marketing Plan. Man. Reg. N20-R9 as amended by 26/72, 164/72, 214/72, 257/74, 43/75, 230/75, 115/76 and 25/78. Also 215/77 and 248/77 relate.

ONTARIO

The Farm Products Marketing Act. R.S.O. 1970. C.162 as amended.

Broiler Chickens and Roaster Chickens Plan. R.R.O. 1970. 310 as amended by 53/72, 462/72 and 39/78 and Marketing Regulations. R.R.O. 1970. 311 as amended by 463/72, 592/72, 128/75, 352/76, 1013/76 and 40/78.

The Ontario Egg and Fowl Producers' Marketing Plan O.R. 593/72, as amended by 183/74, 764/74, 433/75, 470/76, and Marketing Regulations 594/72, 243/73, 184/74, 634/74, 897/74, 434/75 and 595/72.

QUEBEC

Loi sur la mise en marche des produit agricoles. (The Farm Products Marketing Act) Loie de Quebec. 1974. C.36.

Le plan conjoint des producteurs de volailles du Quebec (Quebec Poultry Producers Joint Plan). Gazette officielle du Quebec. Jan. 2, 1971 tel qu'il a été amende par un avis du 12 juin, 1974.

Plan conjoint des producteurs d'oeufs de consommation (Joint Plan of the Quebec Producers' of Eggs for Consumption) Quebec reglements d'application des lois, Aout 1972 (Statutory Regulations, August 1972). 3-623 and 3-631, 3-635, 3-651, 3-653, 3-657, 3-667, 3-669, 3-673, 3-675.

NEW BRUNSWICK

The Natural Products Control Act. R.S.N.B. 1973. C.N-2 as amended.

New Brunswick Chicken Marketing Plan N.B. Reg. 74-74 as amended by 76-67, 79-52, 79-204.

The New Brunswick Egg Marketing Plan. N.B. Reg. 73-4 as amended by 75-20, 78-67 and 78-147.

NOVA SCOTIA

The Natural Products Marketing Act. R.S.N.S. 1967 C.206 as amended.

Nova Scotia Egg & Pullet Producers' Marketing Plan, 1971.

PRINCE EDWARD ISLAND

The Prince Edward Island Natural Products Marketing Act. R.S.P.E.I. 1974 Ch. N-2 as amended.

P.E.I. Poultry Meat Commodity Marketing Plan P.E.I.:O.C.: EC277/76 as amended by EC944/76.

Prince Edward Island Egg Commodity Marketing Regulations. R.R.P.E.I. 1974, Ch. N-2.

NEWFOUNDLAND

The Natural Products Marketing Act, 1973. S.N. 1973; C.79 as amended.

The Newfoundland Egg Marketing Scheme 1970. Nfld. Reg. as amended by and supplemented by 360/78.

CANADA AND THE PROVINCES

Federal Provincial Agreement with respect to the establishment of a Comprehensive Chicken Marketing Program in Canada, Ottawa. National Farm Products Marketing Council 1979. As of March, 1980 this agreement does not include Alberta or Newfoundland.

Federal Provincial Agreement in respect of the revision and consolidation of the Comprehensive Marketing Program for the purpose of regulating the marketing of Eggs in Canada. July 29, 1976, and the Federal Provincial Agreement supplementary to the Agreement of July 29, 1976 known as the Federal Provincial Agreement in respect of the revision and consolidation of the Comprehensive Marketing Program for the purpose of regulating the marketing of Eggs in Canada, 1978. Ottawa, National Farm Products Marketing Council.

APPENDIX B

Canada. Customs Tariffs for Broiler and Eggs

| | <u>Ref.</u> | <u>BPT</u> | <u>MFN</u> | <u>GEN</u> | <u>Unit</u> |
|-------------------|-------------|------------|------------|------------|-------------|
| Chicken | | | | | |
| Live | 905-1 | 2¢ | 2¢ | 5¢ | per lb. |
| Eviscerated | 930-1 | 12-1/2 | 12-1/2 | 35 | per cent |
| but not less than | | 5¢ | 5¢ | | per lb. |
| or more than | | 10¢ | 10¢ | | per lb. |
| Eggs | | | | | |
| Shell | 1600-1 | 2¢ | 3-1/2¢ | 10¢ | per doz. |
| Processed | | | | | |
| Frozen | 1605-1 | 5¢ | 7¢ | 11¢ | per lb. |
| Powder | 1610-1 | 10 | 20 | 30 | per cent |

Source: Canada. Department of National Revenue. Customs and Excise. The Customs Tariff and Adjustments. Current. March 1980. Ottawa.

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