

THE BUTTER INDUSTRY

THE general principle followed by the government in removing the price and rationing controls imposed during the war was to take these controls off at such time as demand and supply appeared to be approximately equal. If this latter condition prevailed price was not likely to increase significantly. On May 1, 1947, at a time of year when production is seasonally high, the subsidy payment to farmers producing butterfat was removed. At the same time the ceiling price of butter was increased, by 10 cents per lb., an amount which, if the market price had risen to the ceiling, would have more than compensated the farmer for the removal of the subsidy. In other words the consumer was asked to pay for his own butter without help from the public treasury.

The price of butter to the consumer did increase by about $8\frac{1}{2}$ cents per lb., while the price which the processor paid to the farmer for his butterfat remained approximately the same. The processor now paid the farmer an amount equal to the old price plus the subsidy and recovered his increased outlay for fat through an increased selling price for his butter. On June 9, 1947 the ceiling on butter was removed altogether thus permitting further price increases. The price of butter thereafter rose from an average of $48\frac{1}{2}$ cents, wholesale at Montreal in May, to 68 cents in early January, at which time a ceiling was again imposed. What factor or factors were responsible for this unexpected increase in butter prices and who profited thereby? Let us first look at the butter industry in Canada and attempt to discover those factors which are mainly responsible for the determination of butter prices.

NATURE OF THE INDUSTRY

Production and Utilization of Milk in Canada

The fat content of nearly one-half of the milk produced in Canada is devoted to the production of butter. There are a number of other final consumer products which compete with butter for the use of the supply of milk sold off farms. The resulting allocation of the total supply of milk among these various products is, therefore, partly dependent upon their respective prices, which in turn hinge upon the tastes of Canadian consumers, and upon the strength of export demand. Allocation is only partly dependent upon price since farmers in some areas have no choice as to the use to which they will consign their milk. There are, for example, no cheese factories in Nova Scotia. A dairy farmer beyond the limits of a fluid milk shed or a concentration plant must either use his milk on the farm or sell it to a creamery. Relative market prices will not likely

influence his decision. Some trends in the use of milk have become evident during the past 10 years as may be seen in the succeeding table.

The total production of milk during the war has been remarkably stable, as has been the output of creamery butter. About 40 per cent of the output of milk is skimmed for creamery butter. The production of dairy butter has been halved during the past 10 years. During the war this shift away from dairy butter was accelerated by the nature of the subsidy policy applied to butterfat. Since no subsidy was paid on butterfat used to make dairy butter, producers diverted fat to creameries in order to secure the subsidy. It may also be worth noting that the estimates of dairy butter production, derived as they are from mailed cards filled in by a sample of farmers, are much less reliable than the estimates of creamery butter production which are compiled from production reports completed by all creameries.

The sales of milk for fluid use show a consistent upward trend. The factors responsible for this increased consumption of fluid milk include subsidies during the period of control, increased consumer purchasing power, higher population and a better appreciation by consumers of the high nutritive value of fluid milk. The consumption of milk in fluid form permits of greater utilization of its food value than does any other use. The nutritionists therefore approve of the increasing use of fluid milk for direct human consumption.

The output of cheese varies considerably from year to year depending largely upon the prevailing relative prices of cheese and butter. Since 100 lbs. of whole milk will yield roughly twice as much cheese as butter, the price of cheese must be approximately half that of butter if cheese factories are to be able to secure milk in competition with the creameries. This one to two price relationship is only an approximate one because of the different costs of manufacturing cheese and butter and because of the different values of the by-products secured from the manufacture of these two principal products. It is only a rule of thumb, but a handy one. Mr. J. F. Singleton of the Dairy Products Division of the Dominion Department of Agriculture stated before the Special Committee that when the price of butter is more than $2\frac{1}{8}$ times the price of cheese there is a diversion to butter; as the price ratio approaches two to one there is a diversion in favour of cheese.¹

Many dairy factories are equipped to produce either cheese or butter. The operators of these dual plants are extremely sensitive to price. Specialized cheese factories are likely to continue to produce cheese even though butter is more profitable. However they are likely to find their patrons shipping more of their milk to creameries than to cheese factories and in this way the output of cheese is reduced while that of butter is increased.

Small quantities of whey butter are manufactured in cheese factories. The whey resulting as a by-product from cheese manufacture will have a fat content of from one-fifth to one-quarter of one per cent.

¹Evidence, Special Committee on Prices, p. 1194.

TABLE 89
 PERCENTAGE UTILIZATION OF MILK IN CANADA
 1942-1947

	1942	1943	1944	1945	1946	1947
Total production of milk (millions of pounds)	17,489	17,519	17,624	17,627	16,937	17,214
Percentage Utilization	P.c.	P.c.	P.c.	P.c.	P.c.	P.c.
Creamery Butter	38.1	41.6	39.7	39.0	37.6	39.6
Dairy Butter	10.5	7.4	7.2	7.1	7.5	7.7
Total Butter	48.6	49.0	46.9	46.1	4.51	47.3
Cheese	13.3	10.7	11.5	11.8	9.7	8.0
Fluid Sales	19.4	21.2	22.2	22.8	25.1	24.2
Concentrated Ice Cream	3.0 1.4	3.3 1.5	3.5 1.6	3.5 1.5	3.7 1.3	3.9 1.9
Consumed on Farms	9.9	9.8	9.8	9.8	10.3	10.0
Fed on Farms	4.4	4.5	4.5	4.5	4.8	4.7
Total used on Farms	14.3	14.3	14.3	14.3	15.1	14.7
	100.0	100.0	100.0	100.0	100.0	100.0

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Source: Dominion Bureau of Statistics, Ottawa.

This fat is recovered by separation and churned into butter. This whey butter sells at a discount of from 10 to 15 per cent below creamery butter, indicating that most people have a preference for the latter product.

The use of milk for the manufacture of concentrated products and ice cream is gradually increasing although both uses are relatively small. However milk for either concentration purposes or for ice cream normally commands a higher price than milk for butter or cheese. These products are, therefore, able to attract the milk which they need away from either butter or cheese.

Yield of Dairy Products Per 100 Lbs. Milk

In order to compare the relative prices of various dairy products it may prove helpful to compare the approximate quantities of each of these products derived from 100 lbs. of milk.

Farmers producing milk to be skimmed for butterfat may either separate their milk on the farm or sell it as whole milk. The butterfat content of milk varies with the season, the breed of cow, and the cow herself. An average yield of 3.5 lbs. of butterfat per 100 lbs. of milk is usually used as a standard. If the milk is separated on the farm, the cream shipped to the creamery will likely test about 35 per cent butterfat—in which case 100 lbs. of 3.5 per cent milk will yield 10 lbs. of 35 per cent cream and 90 lbs. of skim milk. This skim milk has a high protein content and serves as an excellent protein supplement for hogs, calves or poultry.

Although the 10 lbs. of 35 per cent cream contains only 3.5 lbs. of butterfat it will yield about 4.27 lbs. of butter. By the addition of water and salt, creameries are able to make about 123 lbs. of butter out of every 100 lbs. of butterfat or, conversely, each pound of butter contains only about 81.5 per cent butterfat. The industry refers to this process of expansion as an "overrun". The remaining 5.73 lbs. of buttermilk may, in some of the more modern plants, be dried and sold as buttermilk powder for livestock feed. The production of buttermilk powder in Canada is so small as to indicate that only a very small fraction of this by-product is dried. Most goes back to the farm in liquid form to be fed to farm animals.

Some of the newer plants buy whole milk from the farmer, separating and churning the cream and drying the skim for powder. The greater part of this skim milk powder is sold for human consumption. Two or three per cent is sold to be used as an ingredient in prepared poultry or livestock meals. From $7\frac{3}{4}$ to eight pounds of skim milk powder are derived from 100 lbs. of skim milk.

One hundred pounds of whole milk yields about 8.93 lbs. of cheese. The balance is whey and is usually returned to the farm to be used for pig feed, although it may first be put through a separator to recover the very low percentage of butterfat remaining in it.

Now it is possible, given the respective yields and prices of the two products, to compute the relative values of the butter and cheese which may be produced from 100 lbs. of milk. The operator of a dual creamery and cheese factory uses these data to assist him in determining into which of these two products to convert his milk. But he must also take into account the values of the by-products—buttermilk, skim milk, or perhaps casein, if he is making butter, and whey if he is making cheese. Since there is no established market price for buttermilk, skim milk or whey it is not possible to compute the average gross returns derived from milk devoted to either of these two uses. These by-products have a very definite value as feedstuffs, but in the absence of a market it is difficult to impute a price to them. Also the cost of manufacturing the two final products may differ. It is not, therefore, possible for the investigator to work back from the price of the final product, in this case butter or cheese, to the relative prices which the processor might pay for whole milk for each of these uses. The operator of the individual plant, knowing his processing costs and the prices of by-products, probably does use these data to determine which product to produce.

Relative Prices Paid to Farmers for Milk for Various Uses

Milk to be used for various purposes commands varying prices. Fluid milk is invariably priced higher than milk for other uses. In 1947 the average price paid in Canada to farmers for fluid milk was \$3.16 per 100 lbs; for cheesemilk \$2.20; milk used for ice cream \$2.28; for concentrated \$2.39 and for butterfat 55 cents per lb., or an equivalent of \$1.94 per 100 lbs for 3.3 per cent milk.¹ These relationships will be discussed later.

Price then, serves within limits, to allocate the available supplies of milk among competing uses. Those limits are determined for any given farmer by his nearness to a plant. A farmer, for example, cannot sell his milk for concentration purposes if there is no concentration plant within his area. But even though a concentration plant is accessible he may divert milk from such a plant to a creamery if the latter offers a better price. Fluid milk prices are no longer directly determined by the market but are fixed by provincial boards. Milk for fluid uses commands a premium over milk for other uses. More exacting sanitary requirements and the necessity of greater continuity of supply during the year account for part, at least, of this price differential between fluid milk and milk for other uses.

The prices established for butter and cheese during the period of price control were relatively favourable to cheese. Mr. K. W. Taylor, Chairman of the Wartime Prices and Trade Board, in his evidence before the Special Committee confirms this view.

"I think it was a matter of conscious policy to hold butter production. I would not say hold it down, but to emphasize the production of cheese. Cheese was a munition of war in a very

¹Dairy Review of Canada, Statistical Supplement 1947, p. 33.

TABLE 90
DOMESTIC DISAPPEARANCE OF TOTAL BUTTER IN CANADA^a
1939-1947
(thousands of pounds)

Year	A	B	C	D	E	F	G	H	I
	Production	Stocks first of year	Imports	Total supply (A+B+C)	Exports	Stocks end of year	Total deductions (E+F)	Domestic disappearance Total (D-G)	Per capita ^b (pounds)
1939	356,878	45,120	5	402,003	12,399	41,769	54,168	347,835	30.87
1940	350,986	41,769	4	392,759	1,337	34,071	35,408	357,351	31.40
1941	370,795	34,071	482	405,348	1,482	44,368	45,850	359,498	31.49
1942	365,798	44,369	593	410,760	1,601	23,213	24,814	385,946	33.69
1943	369,316	23,213	1	392,530	9,408	46,451	55,859	336,671	29.25
1944	356,013	46,684	1	402,698	4,727	41,247	45,974	356,724	30.81
1945	349,899	41,247	3	391,149	5,598	36,499	42,097	349,052	29.84
1946	328,194	36,499	26	364,719	4,509	44,279	48,788	315,931	25.75
1947	349,145	44,279	5,119	398,544	3,107	44,049	47,156	351,387	27.93

^a) Production and stocks (A+B) include creamery butter, dairy butter and whey butter. In 1947, the production of creamery butter represented 83.3 per cent of the total make, dairy butter 16.1 per cent, and whey butter 0.6 per cent.

^b) Based on population figures which have been adjusted for overseas personnel, 1941 to 1946.

Source: Dominion Bureau of Statistics, Ottawa.

real sense of the term. It was a commodity which the British were pressing us for, and which they could never get too much of from Canada. Throughout the war years the policy of the government was to give cheese an edge, so to speak. Secondly the consumer subsidy on milk, fluid milk, together with the buoyant purchasing power in urban areas did draw off a great deal more milk into the fluid milk market, and it was the government policy as I understood it, that the requirements of fluid milk had to be met. We tried to maximize our cheese production, but just produced enough butter to get by."¹

With the discontinuance of subsidies and ceilings in May and June of 1947 the scales tipped in favour of butter. Cheese production has declined steadily since that time.

SOURCES OF SUPPLY AND ORGANIZATION OF THE INDUSTRY

General Relation of Supply to Consumption

Canada has in the past been almost self-sufficient with respect to butter. As may be seen from the foregoing table her exports have been small relative to total production and her imports even smaller. Mr. J. F. Singleton in his evidence before the Committee stated that

"it has been government policy, to the extent government can influence these things in peace time, to direct agricultural production towards a self-sustaining position in butter rather than being on an import or export basis."²

The prohibition of the production or manufacture of margarine in Canada, which has recently been lifted, together with a Canadian tariff of not less than five cents per lb. on butter, would tend to substantiate Mr. Singleton's belief.

The bulk of our small exports of butter traditionally go to Newfoundland and the West Indies. Some points in Alaska are, because of their inaccessibility, supplied with Canadian butter. Canada shipped some 11 million lbs. to the United Kingdom in 1939 and seven million lbs. again in 1943 when an acute shortage threatened in that country as a result of the loss of two cargoes from Australia and New Zealand.

GEOGRAPHICAL PATTERN OF BUTTER PRODUCTION

AND CONSUMPTION IN CANADA

The large butter producing provinces in Canada are Quebec and Ontario. This is no accident. Much of the soil in these provinces will yield higher returns when used to produce grass rather than grain.

¹Evidence, Special Committee on Prices, p. 1138.

²Ibid., p. 1160.

Milk cows convert this grass into a saleable product—milk. Over large areas of the Prairie provinces, on the other hand, the production of grain will yield higher returns than the production of grass. Many farmers in eastern Canada have found it economical to use an increasing proportion of their improved land to produce hay and pasture and to "import" grain from western Canada. The policy pursued by the Dominion government since 1941, of paying the freight from the lakehead on feed grains to be fed on eastern farms, has encouraged this practice. By using their own land to produce grass and importing grains farmers in central Canada have been able to increase their output of livestock products without adding more acres to their farms.

Despite the relatively large output of butter in central Canada the latter is a deficit area for this product. Although no statistics are compiled on exports and imports by province we can, by making the assumption that per capita butter consumption is the same in all provinces, calculate the probable interprovincial movement. The estimated per capita disappearance in 1947 for Canada as a whole was 27.9 lbs. This average disappearance estimate is multiplied by the population in each province to secure an estimate of probable total consumption for the province. The difference between probable consumption and the production of butter indicates the extent to which each particular province is a surplus or deficit area. These data are summarized in the following table.

TABLE 91
PRODUCTION AND PROBABLE INTERPROVINCIAL MOVEMENT OF BUTTER
BY PROVINCE, 1947

(millions of lbs.)

Province	Production	Probable Exports	Probable Imports
Prince Edward Island	4.1	1.5	—
Nova Scotia	9.3	—	8.0
New Brunswick	11.6	—	2.0
Quebec	105.3	1.0	—
Ontario	86.9	—	30.0
Manitoba	32.2	11.5	—
Saskatchewan	51.1	27.6	—
Alberta	41.5	18.6	—
British Columbia	6.1	—	23.6

Source: Evidence, Special Committee on Prices, p. 1193.

In effect Ontario, British Columbia and the Maritimes are dependent upon supplies of butter from the Prairie provinces.

FACTORS DETERMINING THE PRICE OF BUTTER

In order to assess properly the rather extraordinary increase in the price of butter which occurred during the latter half of 1947, it is necessary to discuss briefly the more important of those factors of demand and supply which determine the price of butter in the absence of price controls and rationing.

Seasonal Variation in Production and the Function of Storage

The production of butter during the year is highly irregular owing to differences in cost of production which in turn varies with the season. Milk cows are kept out on pasture for about five months of the year, from May through September. Most dairy farmers who are producing milk for other than fluid uses plan to have their cows freshen in the spring in order to have them on grass during the flush part of their lactation period. The milk produced during this "pasture" period is obtained at considerably lower cost per pound than that produced during the winter when the cows must be stabled and fed grain, hay and other succulent feeds. Higher production per cow during the summer and a higher percentage of cows being milked account for a substantially higher output of milk during that season than in winter.¹

Since fluid milk cannot be stored it must be, and is, produced as needed for consumption. Concentrated products, butter and cheese, are storable and may, therefore, be produced during those months of the year when production costs are lowest and held in storage until winter. The seasonal variation in the output of cheese is very great; that of butter somewhat less.

The succeeding table shows the average monthly production and disappearance of butter in Canada during the period 1939-1947. The excess of production over consumption from May through September goes into storage to be withdrawn during the five or six months in which consumption exceeds current production. In this way storage stocks bridge the gap between seasonally regular consumption and seasonally irregular production. From an economic standpoint it makes good sense to produce a surplus of butter during the season when the production costs of milk are low and to hold this butter in storage for use during a period of the year when the cost of producing milk is higher. In other words it is cheaper to produce a substantial part of the butter which is eaten in December by making it in June and storing it until December rather than to make it in December from milk produced during that month.

¹The average daily production of milk per cow in June 1943 was 23 lbs. per cow as compared with 13 lbs. in December 1947. Similarly 85 per cent of the milk cows on farms were being milked in June as compared with 68 per cent in December (Dominion Bureau of Statistics, Ottawa).

TABLE 92

AVERAGE PRODUCTION, DISAPPEARANCE AND STOCKS OF BUTTER BY MONTHS

1939-1947

(millions of lbs.)

Month	Average Production	Domestic Average Disappearance	Changes in Storage Stocks	Average Storage Stocks (1st of month)
January	16.3	26.3	-10.3	39.7
February	15.6	25.4	- 9.9	29.4
March	19.2	26.5	- 7.7	19.5
April	25.2	26.8	- 1.9	11.8
May	37.9	29.3	+ 8.1	9.9
June	50.3	30.3	+19.4	18.0
July	46.9	29.8	+16.7	37.4
August	41.5	31.4	+ 9.7	54.1
September	36.7	33.1	+ 3.3	63.8
October	29.9	33.9	- 4.8	67.1
November	20.0	30.5	-11.1	62.3
December	15.9	27.4	-11.5	51.2

Source: Dominion Bureau of Statistics, Ottawa. Changes in storage stocks are only approximately equal to the difference between production and disappearance since small exports are not included in disappearance.

The level of storage stocks also varies in a fairly regular pattern during the year. They reach a low point about the first of May and it is during the spring that any shortages in supply become acute. As the level of production climbs above that of disappearance, stocks increase. About October 1 disappearance again begins to exceed production and storage stocks decline.

In the absence of price control, the typical seasonal movement of butter prices is the converse of the seasonal variation in production. During the summer months when the output of butter is at a seasonal peak the price of butter reaches a seasonal low. Conversely, when butter production is low during the winter and early spring, butter prices reach a seasonal high. Prior to the imposition of price control this characteristic seasonal variation in price was clearly evident. After the imposition of controls the seasonal movement was confined to the range between the established ceiling and floor.

Were it not for storage the variation in butter prices between summer and winter would be much greater. Storage lessens the supply of butter offered to consumers during the summer months and increases the supply offered during the winter months. In this way the price to the butterfat producer is increased over what it would otherwise be during the flush season of production and the price to the consumer is decreased below what it would otherwise be during the winter months.

Those traders, who own or can rent cold storage space, observe that a profit may be made by buying butter during the summer months when prices are relatively low, and selling it during the winter when they are

higher. They will therefore go into the market and buy butter during the summer in the expectation that they will be able to sell it again during the winter at a price which will cover storage costs and yield them a profit which they consider large enough to have made the venture worth their while. The action of these traders increases the total demand for butter during the summer months, thereby raising its price, and increases the supply available to consumers during the winter, thereby lowering its price below the level which would otherwise have prevailed.

Storage operations are therefore a form of arbitrage over time. If, during the summer months, traders knew with certainty what price would prevail for butter during the winter they would bid for and store available supplies until the spread between summer and winter prices was no greater than the cost of storage plus normal profits. Actually, in the absence of price control, traders do not know what price will prevail for butter during the winter months. If a ceiling price is in effect, firms will not buy and store during the summer if the difference between the prevailing price and the ceiling is too narrow to cover costs plus profit. Even below such a ceiling price some risk may still exist since there is no guarantee that the market price will rise to the ceiling price during the winter months.

Given perfect certainty as to future prices, the price of butter during the winter months could not exceed the price during the summer by more than the cost of storage between the two periods—so long as storage space was available. Actually, those firms storing butter do not have anything approaching perfect knowledge regarding the future price of butter. If consumer demand during the winter is not as strong as anticipated, or the winter supply of butter is greater than expected, the selling price of those firms storing butter may well be less than their original purchase price plus costs of storage. That these firms may lose on storage operations during some years is evident from the cost statements which they submitted to the Special Committee.

It is worth noting that those firms storing butter are not only attempting to make storage costs on butter but are also speculating on a further increase or a decrease in the value of their butter inventories between the time of initial storage and sale. This risk of a change in the price of the commodity during the storage period must be borne by someone. When the futures market for wheat was operating, most of those firms storing wheat hedged their storage stocks against price change—i.e., they sold a future against the stocks which they held. If the price of wheat declined they gained on their futures transaction approximately what they lost on their storage stocks. Similarly if the price advanced they lost on the futures transaction and gained on the grain held. An exporter, or a miller, with commitments for future delivery, might hold these contracts which the storing firm had sold—or they might be held by a speculator anticipating an increase in price. In any event, practically all of the firms storing butter accept the risk of price change, i.e. they do not hedge their stocks.

The Level of Butter Production

The average price of butter over the year is determined by the demand of Canadian consumers for butter and the supply of butter offered for sale. The price of butter in Canada is not much affected by the price of butter in other countries since little comes in over our tariff and little is exported. The prohibition of the manufacture or importation of a close butter substitute up to the present time also causes the domestic butter price to vary directly with the Canadian supply of and demand for butter. There are a number of factors which, in turn, determine this supply and demand.

The supply of butterfat is, as has been pointed out earlier, determined in the short run by the price offered for butterfat relative to that offered for milk for other uses. While the price structure largely determines the allocation of available milk, the output of milk may itself be increased or decreased. Weather conditions during the pasture period exert a marked influence on the yield of milk per cow. If pasture conditions permit cows to be turned out early in the spring and the grass does not deteriorate from drought during the season, the output of milk will be higher than under less favorable weather conditions.

The price of those protein and carbohydrate concentrates fed by dairy farmers also influences supply. If high protein feeds and grains are cheap relative to the price of milk, farmers will feed more of these concentrates and, thereby, increase the output of milk. In October of 1947 the Dominion government discontinued its subsidy payments of 25 cents per bushel on wheat and barley and 10 cents per bushel on oats, used for feed, and, at the same time, removed the ceilings on oats and barley. The price of feed wheat to the dairy farmer immediately increased by 25 cents per bushel, oats by about 30 cents and barley by about 55 cents. Under the stimulus of these increased feed prices many farmers began to cut down on the quantities of grain fed, and partially to replace grain with hay. As they did so, their cows gave less milk.

The Dominion government is still subsidizing the production of milk and wheat in eastern Canada by paying the freight from the head of the lakes on coarse grains, wheat and millfeeds to be used for feed. This policy encourages a larger output of livestock products by making their production more profitable to the farmer.

There is another factor, the importance of which it is difficult to evaluate, affecting the supply of milk. This is the export of dairy cattle from Canada. The exportation of purebred cattle and cattle for dairy purposes was permitted throughout the war and post-war years and considerable numbers went to the United States and to Latin American countries. In 1947 Canada exported 82,727 head of all cattle. Included in this number were 46,506 head of grade dairy cows, practically all of which went to the United States. These would be, for the most part, cows in milk or to freshen. Some may have been cows more suited for beef than milking purposes, and, when once in the higher priced American beef market, soon found themselves in a packing plant. A

similar fate probably overtook a number of purebred dairy bulls which were exported as breeding stock. Those farmers selling cows for export apparently concluded that greater returns were to be had by selling their cattle than by retaining and milking them. Most of the dairy cattle exported were from Ontario, Quebec and the Maritimes. The estimated number of milk cows and heifers over two years old on Canadian farms, at December 1, 1947, was about 50,000 head less than at the same date in 1946.

Another factor which has tended to reduce the output of milk, particularly in western Canada, has been the increasing price of beef relative to milk. Much of the churning cream produced in the Prairie Provinces is from dual purpose cattle. With higher beef prices, there has been some tendency to let the calves do the milking and to sell more beef and less milk. There is also some evidence that, as prairie farmers' incomes increased with advancing grain prices and better than average yields, they became less willing to milk cows and sell cream. There was a sharp contraction in the make of creamery butter in Saskatchewan after 1944. Output in that year was 48 million lbs; in 1947 it was 36 millions lbs.

All of these factors combine to determine the absolute level of milk output and its allocation among the various products competing for its use. The supply of butter available to consumers at any time during the year depends not only upon current production at that time but also upon the movement into or out of storage. If, during the summer months, the management of those firms which store butter expects the winter price to exceed the prevailing price by an amount equal to, or greater than the cost of storage, there is likely to be a relatively heavy movement of butter into storage.

On the demand side the important determinants of the quantities of butter purchased by consumers appear to be the price of butter and consumers' income. If price were left free to "ration" available supplies of butter there would not be "shortages" as such. On the other hand, prices would rise to very high levels in the spring of a year in which supplies were small, as in April of 1948. Many consumers, at present income levels, are prepared to pay very high prices for butter since no close substitute has been available up to the present. A ceiling was imposed on butter on January 19, 1948 in order to stop the upward trend of prices. Consumers were now willing to buy more butter at ceiling prices than was available. Hence a "shortage" was inevitable since rationing had been discontinued on June 9, 1947.

Some people express surprise that Canadians were, during the latter months of 1947, prepared to consume more butter at 65 cents per lb. than they did in 1939 at 35 cents per lb. This does not mean that people do not buy less butter as its price rises—if their incomes remain constant. In point of fact Canadian consumers' personal disposable income available for expenditure or saving after the payment of personal direct taxes was twice as great in 1947 as in 1939.¹

¹Dominion Bureau of Statistics, Ottawa.

The Canadian Commodity Exchange

Since the Commodity Exchange itself is frequently thought to be one of the factors determining the prices of the commodities which are traded on the exchange, its organization and method of operation merit some comment. The Canadian Commodity Exchange in Montreal was established in 1935. Its purpose is to provide a place where buyers and sellers may meet together in order to buy and sell butter for either immediate or future delivery. It is the only organized exchange in Canada on which butter is traded. The Exchange itself is a non-profit organization and neither buys nor sells. It meets its expenses by means of an annual assessment of \$60 on each of its 31 members. These members may either buy and sell on their own account or, acting as brokers, on behalf of their clients.

Butter may be bought or sold for either immediate or future delivery. Trading in butter for future delivery, or "futures", simply means the execution of contracts to accept, or to deliver, a specified grade of butter during some future month at a specified price. A wholesale butter dealer, for example, may have undertaken to supply butter to his retail customers during the winter months. In order to assure himself of being able to get this butter at a specified price during these months he may buy butter futures on the Exchange.

The Canadian Commodity Clearing Association undertakes to see that the person or persons who sold these contracts for future delivery, honours them when the time comes. The seller may, in this case, have been a creamery which will have butter to deliver during the winter months. It might also have been a firm storing butter in order to earn the storage charges. By selling a future against the butter which it holds, such a firm is said to be "hedging". It is protecting itself against either gains or losses resulting from a change in the market value of the butter which it holds. If the price of butter increases the firm gains on the butter which it holds and loses on its futures contract and conversely. We have noted earlier that few, if any, of the firms storing butter avail themselves of this opportunity to protect themselves against gain or loss resulting from changes in the market value of their inventories. Since these firms do not hedge their storage stocks they are themselves bearing the risk of price change.

The function of the Canadian Commodity Clearing Association is to act as the "bookkeeper for the Commodity Exchange". In order to enforce contracts which have been made, the Clearing Association sees to it that all traders are "maintaining their position". If, for instance, a firm has sold a contract for future delivery (a "short") and the price advances, that firm must pay in to the Clearing Association the increase in price on each unit sold. Conversely, the person who has purchased the contract (a "long") may withdraw from the Clearing Association the amount of the increase in price. If the "short" refuses to make his payment as the price advances, his contract is immediately cancelled by the execution of an offsetting contract. In this way everyone's account

is kept on a current basis and there is no chance of default. The sum of the "short contracts" must always balance with the sum of "the longs" since for every seller there must be a buyer.

Persons or firms trading in futures are permitted to buy or sell on a "margin". That is, a person either buying or selling a future is not required to deposit the entire market value of his contract with the Clearing Association. On a contract for a "carlot" of butter of 22,400 lbs. with a market value of, say \$15,000, a trader is required to put up only \$1,500. He must maintain his equity with the Clearing Association by keeping his account "marginied" up to the close of the market each day.

The Clearing House partially defrays its operating expenses by charging a fee of one cent per box of 56 lbs. of butter traded for immediate delivery and \$2 per contract on futures. It has seven members.

On many commodity exchanges there are people trading in futures who are not handling butter at all. If any such person considers the quoted price of any butter future which is being traded to be too high, or too low, relative to the market price which is expected to prevail either before, or at the time, this future is to be closed out, he will "sell short" or "buy long" as the case may be. If he sells short and the price falls or, if he buys long and the price rises, he makes money. If the price moves the other way he loses. The futures market thus offers an opportunity for those who wish either to "hedge" or to "speculate" to do so.

Speculators during the thirties and forties of this century have frequently been in bad repute. Whether or not the speculator merits this reputation may depend upon what kind of a speculator he is. Intelligent speculation, based upon an accurate knowledge of supply and demand conditions tends to even out prices over time. On the other hand uninformed speculation may cause unnecessary short-run fluctuations in price. If enough traders think that the price of a future is going up it will go up as a result of their own actions. If this expectation is unjustified by the fundamental conditions of supply and demand, the price will later drop back to its equilibrium level. In other words traders' expectations may tend to be "self-justifying".

The evidence presented to the Special Committee on Prices indicates that the volume of trading in either spot butter or futures contracts on the Montreal Commodity Exchange is very small relative to total production and sale of butter in Canada. Mr. K. H. Olive, President, Canadian Commodity Exchange, Montreal, stated that butter is not offered for sale on the Exchange except where Montreal is the logical market for such butter. Some 10 million lbs. were sold "on spot" in the Exchange in 1946.¹ This quantity is less than 3½ per cent of the total output of butter in Canada for that year.

The volume of futures traded on the Canadian Commodity Exchange is also very small. Futures are frequently not traded, particularly when a ceiling is in effect since no one is willing to enter into contracts for future delivery. Prices are tight up against the ceiling and wholesalers

¹Evidence, Special Committee on Prices, p. 1740.

and wholesale-retailers are of necessity getting their supplies directly from the creamery rather than through the Exchange. In 1947 the total volume of futures traded amounted to 14.4 million lbs. or only 4.17 per cent of total production.¹

There is no evidence to indicate that speculation on the Commodity Exchange had any appreciable effect upon the price of butter during the intercontrol period from June, 1947 to January, 1948. Since only a very small proportion of total butter supplies are traded on this exchange there appears to be little or no opportunity for traders to raise or depress the price above or below the equilibrium established by existing demand and supply. "Long" speculators would, for instance, find it almost impossible to raise the price appreciably by insisting upon taking delivery in the contract month. To make such a "corner" effective traders must also have control of a large part of the existing stocks of butter in Canada as well as the current production coming on to the market from day to day. Such a degree of control of supplies would be extremely difficult to achieve.

PRICING AND SELLING POLICIES

Butter was one of the first commodities to be brought under a price ceiling at the beginning of World War II. The Wartime Prices and Trade Board established a temporary maximum wholesale price for butter, effective December 28, 1940, in order to stop a rapid rise in the price of this foodstuff during the winter months. This action of the Board is indicative of a marked change in the Canadian butter situation in 1940 as compared with 1939. Prices for butter were sufficiently low during the summer of this latter year to cause Parliament to vote one million dollars for the purchase and distribution of creamery butter to low-income families.

In January of 1941, the Dairy Products Board was given authority to establish floor prices for butter and these were made effective in May as firm prices at which the Board would purchase any butter offered for sale. This floor price, in effect from May through December, was increased by a half cent per pound a month to cover storage charges. Since the market price remained above the floor, the Dairy Products Board was not required to purchase any butter in order to make the price guarantee effective.

On May 1, 1942, maximum wholesale prices for butter were established by the Wartime Prices and Trade Board for each province with an increase of three-quarters of a cent per lb. per month permitted to cover storage costs. On July 6, a floor price was fixed at a level of two cents per lb. below the wholesale ceiling. At the same time a subsidy of six cents per lb. on butterfat was made payable to the butterfat producer on deliveries made to creameries. On December 21, 1942, the wholesale

¹Evidence, Special Committee on Prices, p. 1741.

price was reduced to the level which prevailed during the base period of the general price control order—September 15 to October 11, 1941. In order to avoid lowering the price paid to the producer for his butterfat, the subsidy on the latter was increased to 10 cents per lb. Although this butterfat subsidy was lowered to eight cents per lb. from May 1 to December 31, 1943, it was, thereafter, restored to 10 cents per lb. at which level it remained until its removal on May 1, 1947.

Butter prices to the consumers then, were held down by a ceiling while the price paid to the producer for butterfat was guaranteed by a floor price and increased by a direct subsidy. Since consumers were prepared to buy more butter than was available at ceiling prices, a ration of eight ounces per person per week was established on December 21, 1942. The floor price at which the Dairy Products Board was prepared to buy was varied seasonally in order to encourage greater production during the winter months when production costs are highest, and also in order to enable firms to store butter during the summer and sell it during the winter. Butter purchased during the summer and fall months by the Dairy Products Board was, for the most part, sold back on to the domestic market during the winter. Some was sold for export to the United Kingdom, to the West Indies or to provision British warships in the Pacific.

While controlling the price paid to the producer for butterfat, the government was, at the same time, controlling the price paid to the producer of cheesemilk by means of subsidies on cheesemilk, quality bonuses for cheese and the negotiation with the United Kingdom of export contracts for cheese. One of the objectives of this policy was to make a maximum quantity of cheese available for export to the United Kingdom while maintaining a modest butter ration in Canada. During 1944 it was not possible to maintain an eight ounce butter ration and on January 1, 1945, the ration was reduced to six ounces per person per week.

The Wartime Prices and Trade Board exercised similar controls over the price paid for fluid milk for consumption by means of price ceilings, consumer and producer subsidies. These various provisions enabled the government to exercise a fairly high degree of control over the allocation of milk among the various products competing for its use.

During 1947 an arrangement was made with the British Ministry of Food for the importation into Canada of about five million lbs. of New Zealand and Australian butter. On May 1, 1947, the 10 cent subsidy to butterfat producers was discontinued and the ceiling price of butter increased by 10 cents per lb. At this time the government took steps to recover inventory profits made by storers of butter due to the removal of the subsidy. This was calculated to be 8½ cents per lb. On June 9th the ceiling and rationing regulations were completely removed leaving the determination of butter prices to the open market.

ANALYSIS OF BUTTER PRICES DURING THE INTER-CONTROL PERIOD,
MAY 1, 1947—JANUARY 19, 1948

Although the ceiling on butter was raised by 10 cents per lb. on May 1, 1947, the market price failed to rise to the full extent permitted. Butter prices at both wholesale and retail levels increased by about 8½ cents per lb. The action of the government in recovering this price advance on storage stocks prevented the owners of such butter from receiving a fortuitous gain on inventories. Both the retail and wholesale prices of butter held through July at about the pre-decontrol level plus the butter equivalent of the subsidy on butterfat. Since each pound of butter contains a legal minimum of four-fifths of a pound of butterfat and the consumer was in effect now paying this former subsidy, the 8½ cent increase in the price to the consumer was not out of line.

During August, butter prices began to climb and, with the exception of a minor recession in October, this upward trend continued until a ceiling was re-imposed on January 19, 1948. The factors responsible for this increasing price level for butter are well summarized in a statement made before the Special Committee by Mr. K. H. Olive, President, Olive and Dorion, Limited, and also President of the Canadian Commodity Exchange in Montreal. Mr. Olive was the administrator of dairy products in the Wartime Prices and Trade Board from April, 1943 until June, 1947. His analysis follows:¹

Why Did Prices Advance?

Price is the factor, which, on a free market, reflects the relation of supply to demand.

Effective wartime control of the price of butter was adjusted to the supply by means of coupon rationing.

When rationing was discontinued and consumers again were free to purchase unlimited quantities of butter, price once more became the factor which reflected consumer demand in relation to producer supply.

In the last seven months of 1947, disappearance of butter in Canada increased 26.8 million pounds, while in the same period production increased only 19.1 million pounds.

This trend of over consumption in relation to production was first revealed in D. B. S. statistics released July 10 which showed an increase in disappearance of about 3.5 million pounds for the month of June, 1947 over June, 1946. Not too much importance was attached to the increase at that time because it had been expected that in the first few weeks following the discontinuance of rationing, both consumers and retailers would buy a little extra butter to build up to normal icebox reserve. However, when

¹Evidence, Special Committee on Prices, p. 1754.

D.B.S. figures released August 10, revealed a further very substantial gain in disappearance, the industry concluded that the heavy increase in demand from Canadian consumers would continue and would not be equalled by a corresponding increase in supply unless prices advanced to encourage still greater production.

Buying was very active all over Canada from the middle of August to the end of September and producers were able to demand progressively higher prices. In this period butter prices moved up about six cents per pound.

Analysis of the buying in August and September shows that actual disappearance of butter increased by almost 9.5 million pounds over 1946 and in face of such heavy movement into consumer channels, plus the growing concern of distributors regarding their winter trade requirements, the upward movement of prices was inevitable.

When it became known early in October that production had shown a spectacular gain in September, almost eight million pounds above 1946, demand fell off and prices weakened.

The improvement in the production picture was not the only factor which contributed to the decline, however, for at that time there was talk of possible imports, reimposition of ceiling prices and a great deal of clamor for margarine. Prices were higher than most people in the industry could recall and there was widespread nervousness.

From the first of October to the middle of November, butter prices moved in a range between 55 cents and 60 cents per pound.

During this period, on October 22, 1947 to be exact, ceilings and subsidies were removed from coarse grains and feeds and prices for these commodities advanced sharply. In eastern Canada in 1947, there was a substantial decline in the production of coarse grains so that the dairy farmers were not only faced with the necessity of heavier purchases from western Canada to maintain winter milk production, but also faced rapidly mounting costs. Meanwhile industry efforts to obtain relief through imports had proven unavailing and there was no indication that the government had been any more successful. Under these changed conditions, the future supply picture deteriorated. It seemed apparent that domestic stocks and production must supply the requirements of the Canadian consumers and no one in the industry had any remaining doubt of butter shortage under such circumstances.

Demand from distributors and consumers, seeking to protect their winter supply, again became very active and once again producers were able to demand and obtain progressively higher prices.

About that time, a good deal of publicity was given to the probability of a butter shortage and in my opinion, this had the effect of frightening consumers into buying more than immediate requirements. It is difficult to assess the extent of this consumer hoarding but it was undoubtedly a factor in the price increase. A study of disappearance figures for the last three months of 1947 compared with January and February 1948 has convinced me that advance buying by consumers amounted to substantial proportions, perhaps several million pounds. The January-February figures were low and I conclude from this fact and my knowledge of the butter movement, that consumers were eating in January and February the extra butter they acquired in the fall of 1947.

Total butter production in November and December increased only about 1.4 million pounds but disappearance in the same period increased 6.3 million pounds over 1946 and I think these figures substantiate what I have said about higher production costs and consumer hoarding.

The whole story of price increase is one of demand exceeding supply. I have no hesitation in stating that most people in the butter industry did not want to see extreme prices. I believe producers also would have been content with lower prices if feed costs had not risen.

In my opinion, speculation or withholding were not factors in determining the price level but shortage in relation to consumer demand, and shortage only, was responsible for the increase in price.

The significant statistics which Mr. Olive cites are those of production and disappearance for each month, together with storage stocks at the beginning of the month. The following tables contain these data for the 1939-1947 period.

The Canadian output of 290.8 million lbs. of creamery butter in 1947 was actually above that of 1946 and substantially higher than the average production of 254.8 million lbs. during the 1935-1939 period. Stocks too were as high, and sometimes much higher in 1947 than at the corresponding date in 1946. The statistics on disappearance explain the story of the shortage. Average monthly disappearance for each month after the removal of rationing ran well ahead of disappearance during the corresponding month of 1947.

The key to an understanding of rising butter prices during the last half of 1947 seems to be the fact that consumers wished to buy more butter at the prices at which butter was selling than they had been able to get when rationing was in effect. Since no immediate and substantial increase in the output of butter in response to these rising prices was

TABLE 93
 PRODUCTION OF BUTTER IN CANADA BY MONTHS
 1939-1947

(thousands of pounds)

	1939	1940	1941	1942	1943	1944	1945	1946	1947
January	16,770	17,192	18,346	17,024	17,603	15,268	15,685	14,039	14,362
February	15,810	16,253	16,959	15,980	16,511	16,713	15,117	13,307	13,429
March	19,225	18,541	20,335	19,235	20,672	19,497	20,019	17,277	17,788
April	23,641	24,186	26,488	23,923	27,851	24,841	25,721	24,420	25,506
May	36,577	35,812	41,470	37,400	37,812	39,700	37,831	37,269	37,032
June	50,912	49,525	49,668	50,227	52,630	51,841	50,221	48,381	49,400
July	45,535	46,921	46,203	47,192	49,414	46,368	47,280	45,804	47,391
August	41,099	40,624	42,156	42,690	43,514	41,501	42,425	38,595	40,932
September	37,948	34,253	39,870	38,808	38,386	36,166	35,318	31,003	38,832
October	31,014	29,631	31,795	31,689	29,744	28,921	28,341	26,663	31,670
November	21,360	20,825	20,601	22,365	19,585	20,322	17,981	17,587	18,928
December	16,987	17,223	16,903	19,265	15,594	15,875	13,960	13,849	13,875
Year — Creamery Butter	267,613	264,724	285,848	284,591	311,709	298,777	293,811	271,491	290,841
Dairy Butter	87,459	84,256	82,796	78,525	55,407	54,580	53,283	54,225	56,295
Whey Butter	1,806	2,006	2,151	2,582	2,200	2,656	2,805	2,478	2,009
Total butter	356,878	350,986	370,795	365,798	369,316	356,013	349,899	328,194	349,145

Source: Dominion Bureau of Statistics, Ottawa.

TABLE 94
DOMESTIC DISAPPEARANCE OF TOTAL BUTTER IN CANADA BY MONTHS^a
1939-1947

(thousands of pounds)

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
1939	25,146	25,156	27,450	26,268	30,438	31,662	29,865	31,519	35,500	31,705	27,969	25,157	347,835
1940	25,498	26,174	27,645	27,720	30,573	31,425	29,519	32,036	33,878	36,465	30,709	25,709	357,351
1941	24,755	26,068	27,725	27,718	31,375	31,857	31,479	31,476	33,743	35,187	31,187	26,928	359,498
1942	27,990	27,428	29,726	28,479	33,013	33,267	32,002	34,641	36,216	40,254	34,425	28,505	385,946
1943	25,449	19,312	23,010	26,479	29,235	30,013	28,350	31,030	34,324	31,399	29,638	28,432	336,671
1944	28,220	28,565	27,824	26,574	30,790	30,932	29,632	30,671	32,362	32,732	31,208	27,214	356,724
1945	25,891	24,708	26,660	25,979	30,463	29,193	30,317	30,763	31,155	33,944	31,417	28,562	349,052
1946	27,225	26,063	21,461	22,836	25,565	26,451	26,760	27,549	28,192	30,080	27,455	26,294	315,931
1947	26,205	25,061	27,291	29,445	23,803	30,028	30,643	32,709	32,467	33,725	30,662	29,348	351,387

^a) Total butter production includes creamery, dairy and whey butter for all years, but whey butter stocks cover the period commencing January 1, 1944.
Source: Dominion Bureau of Statistics, Ottawa.

TABLE 95
 STOCKS OF BUTTER IN CANADA AT THE FIRST OF EACH MONTH
 1939-1948
 (thousands of pounds)

Year	Jan. 1	Feb. 1	Mar. 1	Apr. 1	May 1	June 1	July 1	Aug. 1	Sept. 1	Oct. 1	Nov. 1	Dec. 1
1939 ^a	45,120	35,382	23,616	13,213	9,953	15,084	33,047	47,071	55,637	57,852	56,901	50,044
1940 ^a	41,769	33,369	23,371	14,232	10,611	15,799	33,763	51,037	59,475	59,681	52,702	42,672
1941 ^a	34,071	27,596	18,469	11,150	10,038	20,045	37,711	52,273	62,811	68,785	65,275	54,500
1942 ^a	44,368	33,325	21,797	11,261	6,695	11,456	28,331	43,311	51,140	53,454	44,655	32,535
1943 ^a	23,213	15,324	12,427	10,026	11,378	19,865	42,265	63,239	75,655	79,318	73,013	59,724
1944 ^b	46,684	33,648	20,343	11,693	9,541	17,735	38,193	54,378	64,758	68,269	64,141	52,925
1945 ^b	41,247	30,826	20,807	13,621	12,816	19,751	40,263	56,960	68,199	71,995	65,556	51,678
1946 ^b	36,499	23,011	9,997	5,450	6,872	18,363	40,088	58,799	68,914	71,137	67,441	57,126
1947 ^b	44,279	32,016	24,222	15,419	11,327	24,046	42,861	59,430	67,509	73,680	71,426	59,594

a) Includes imported butter; stocks in bond not included.
 b) Whey butter stocks January 1, 1944 to February 1, 1948, are included.
 Source: Dominion Bureau of Statistics, Ottawa.

possible there was no way, short of formal controls, of checking the upward trend in prices.

An examination of the storage statistics of those firms who testified before the committee yields little evidence of hoarding in an effort to force butter prices to a higher level.

Mr. J. S. Turnbull, General Manager, Saskatchewan Co-operative Creamery Association, Limited admitted that his co-operative did hold 332,000 lbs. of butter, over and above working stocks, off the market during the summer of 1947. He refused, however, to accept Mr. Johnston's suggestion that this was "hoarding to obtain a price", maintaining rather that it was "orderly marketing as a producer organization".¹

An economist expecting firms to maximize their profits might be surprised at the failure of firms storing butter to hold more of their stocks than they did in expectation of higher prices. Consumers were expecting rising prices and therefore stepping up their purchases and apparently indulging in "ice-box hoarding". This action would, of course, serve to accentuate the price increase. Many firms may, however, have foreseen the possibility of a renewal of ceilings and concluded it wise to accept the unprecedented windfalls which had fallen their way without holding out for still larger gains.

EFFECTS OF DECONTROL

We have seen that immediately after the removal of the price ceiling and the subsidy on butter the price to the consumer increased by about 8½ cents a lb., which was the approximate subsidy paid to the farmer on the butterfat content of a pound of butter. The total price which the farmer received for his butterfat did not increase; he simply received full payment from the consumer now, whereas previously, the government had paid him 10 cents subsidy on each pound of butterfat. Decontrol was effected near the beginning of the heavy production period for both milk and butter and storage stocks were, therefore, just beginning to build up again.

Several firms presented their butter accounts to the Special Committee and these accounts show the profits which these firms made on storage butter operations during the period of decontrol. As is to be expected, profits varied among firms, depending largely upon the quantities of butter stored and the dates of purchase and sale. It may, therefore, prove useful to calculate an approximate rate of profit on all butter storage operations by using the statistics on wholesale

¹Evidence, Special Committee on Prices, p. 1215.

butter prices and the stocks in store at the beginning of each month. These data are summarized in the following table:

TABLE 96
ESTIMATE OF PROFITS MADE BY ALL FIRMS STORING BUTTER
1947-1948

	Average Wholesale Price, No. 1 Solids Montreal (cents per lb.)	Movement into (+) or Out of (-) Storage (thousands of lbs.)	Firms Total Outlay (+) or Receipts (-) (thousands of dollars)
May 1947	48½	+12,719	- 6,169
June	49¾	+18,815	- 9,360
July	49 7/8	+16,569	- 8,264
August	55¼	+ 8,079	- 4,464
September	59 1/8	+ 6,171	- 3,649
Sub-total		+62,353	-31,906
October	57 1/8	- 2,254	+ 1,288
November	60 3/8	-11,832	+ 7,144
December	66 1/8	-15,545	+10,279
January	68	-12,346	+ 8,395
After February 1, 1948	67 1/2	-20,376	+13,754
Sub-total		-62,353	+40,860
Total		0	+ 8,954

Weighted "into storage" price	$\frac{31,906}{62,353}$	= 51.2 cents per lb.
Weighted "out of storage" price	$\frac{40,860}{62,353}$	= 65.6 cents per lb.
Average gross storage profit	$\frac{8,954}{62,353}$	= 14.4 cents per lb.
Average net storage profit	14.4 - 3.	= 11.4 cents per lb.

Source: Dominion Bureau of Statistics, Ottawa.

The total market value of butter going into storage is deducted from the value of this butter at the time it was taken out of storage and sold. The average weighted wholesale price of the butter going into storage was 51.2 cents per lb.; the weighted price of butter taken out of storage was 65.6 cents per lb. or a gross spread of 14.4 cents per lb. Any difference between the inventories of butter as of May 1, 1947 and May 1, 1948 is not taken into account in making this calculation; it is assumed that all butter stored during the storage period of 1947 was removed from storage prior to May 1, 1948.

From the gross spread of 14.4 cents per lb. must be deducted costs of storage. Assuming an average storage period of six months and a storage cost of a half cent per lb. per month¹ total storage costs would be approximately three cents per lb. Net storage profit would then be about 11.4 cents per lb. on all butter stored. This over-all estimate

¹Estimate given by Mr. John Freeman, President. Lovell and Christmas, Evidence, Special Committee on Prices, p. 1419. This charge includes rent on storage space, insurance and interest on capital tied up in butter.

of net storage profits compares closely with the 11.2 cents per lb. profit shown by Canada Packers. Clearly those firms assuming the risk of price change on the 62 million lbs. of butter stored during this particular year were well rewarded for their enterprise.

The executives of the firms submitting cost accounts on their butter operations to the Special Committee were unanimous in admitting they had made "enormous" or "terrific" profits during the inter-control period. Thus, Canada Packers, as of February 25, 1948, showed an average into storage cost of 51 cents per lb.; an average out of storage wholesale selling price of 65.12 cents. From this gross spread of 14.12 cents are to be deducted average storage costs of 2.91 cents per lb. to give an average net profit of 11.23 cents per lb. At that date this firm still had 23,223 boxes of butter (56 lbs. each) in storage on which they would realize at least as high a net profit. This cost account for butter is summarized in Table 10.

Handling, as they do, very large quantities of butter, Canada Packers made a net profit of \$509,105,¹ on storage butter alone during that part of the 1947-1948 "storage year" ending February 25. These profits are also net of an imputed interest charge of six per cent on all capital employed in the storage department. These imputed interest charges for the use of capital owned by the firm are "washed out" in the annual financial statement by crediting them back as a receipt. This estimate of profit on the butter storage account is therefore low by six per cent of Canada Packers' equity in the capital allocated to this account.

The Company, as a whole, has shown very high earnings for the last three completed fiscal years. The profits after taxes on income were \$1,816,781 in 1946, \$2,059,644 in 1947 and \$2,182,300 in 1948.

TABLE 97
RELATION OF PROFITS TO SALES, BEFORE AND AFTER TAXES
PERCENTAGE RETURN OF NET PROFITS TO SHAREHOLDERS'
EQUITY^a, CANADA PACKERS', LTD.
1946-1948
(per cent)

Year	Percentage of Profits before Taxes on Income to Sales	Percentage of Profits after Taxes on Income to Sales	Percentage of Profits after Taxes on Income to Shareholders' Equity.
1946	2.21	.87	9.03
1947	1.84	1.01	9.73
1948	1.85 ^b	.91 ^b	9.76 ^b

^a) Surplus on appraisals of \$5,663,432 has been included in the shareholders' equity.

^b) After provision for inventory reserve of \$625,968.

Source: Canada Packers', Ltd. Annual Reports to shareholders, 1946, 1947, 1948.

¹Evidence, Special Committee on Prices, p. 1313.

It should be added that profits of this order on storage butter are extremely unusual. For the nine fiscal years (ending in March) preceding 1947-1948 Canada Packers made an average profit of 0.19 cents per lb. The highest return was 8.64 cents per lb. in 1941 and the lowest a loss of 4.82 cents per lb. in 1939. There were losses in six of the nine years and profits in three. The general experience of other firms storing butter has been similar to that of Canada Packers in this respect.

Canada Packers handles some 20-25 million lbs. of butter each year, of which total, some six million lbs. are manufactured in the firm's own creameries. If total net earnings attributable to butter are worked out on a per lb. basis for this total turnover, the average per unit net profit is much smaller than 11.2 cents earned on storage operations. On this basis, for the period 1929-1947, the firm averaged a net profit of 0.14 cents per lb. on all butter handled.

Mr. McLean, the President of Canada Packers, did not agree with the suggestion that his company, either alone or in combination with other firms, might have held butter prices below the market level and thus taken a smaller return for his company. He said in part:

"But suppose someone was to offer butter to the merchant or who ever bought a pound of butter—if we were selling it at 60 cents and everybody else was taking 68 cents, they would be on our doorstep for the butter, and every customer we had would feel and would claim that we had not given him his proper share of that type of butter, and our butter would be sold out in three weeks and the market would again be 68 cents."¹

Mr. McLean's point appears valid. Despite the fact that Canada Packers' butter sales average about 10 per cent of total sales of Canadian creamery butter, this firm could not, by itself, have stemmed the advancing level of butter prices during the fall and early winter of 1947. This does not, of course, mean that a firm controlling 10 per cent of total supply cannot, by its own actions, influence its selling price. It is difficult, or impossible, to determine by any means other than actual trial and error by how much such a firm may affect its selling price. Moreover if it can lower prices it can also raise them. This question of whether or not a firm can influence its selling price is, of course, quite distinct from that of whether or not it should do so.

Canada Packers could not increase the total supply of butter in the winter of 1947-1948 nor did it have any control of consumer demand for butter. These two factors were largely determining the retail price of butter. If, as Mr. McLean said, Canada Packers had sold below the market price the firm would have had more "would-be customers" than it could accommodate while the retailer would likely have widened his spread to take up the slack, and the consumer would have obtained no benefit.

The experience of other firms submitting cost statements was very similar to that of Canada Packers. Silverwood Dairies showed a gross profit of 12.64 cents per lb. and a net of 9.9 cents on its storage operations

¹Evidence, Special Committee on Prices, p. 1330.

TABLE 98
 CANADA PACKERS LIMITED
 ALL PLANTS
 STORAGE BUTTER ACCOUNT 1947-1948

ROYAL COMMISSION ON PRICES

Week ending	In				Week ending	Out			
	Number boxes		Purchase price			Number boxes		Transfer at market price	
	Week	To-date	Week	Average to-date		Week	To-date	Week	Average to-date
June 5	6,954	6,954	48.60	48.60	Nov. 12	5,079	5,079	58.22	58.22
12	12,998	19,952	49.00	48.89	19	5,045	10,124	60.55	59.36
19	8,685	28,637	50.06	49.25	26	6,106	16,230	62.13	60.41
26	8,096	36,733	51.20	49.66	Dec. 3	5,218	21,448	63.23	61.08
July 2	7,520	44,253	50.18	49.81	10	6,057	27,505	64.82	61.95
9	9,222	53,475	49.40	49.75	17	4,801	32,306	65.58	62.49
16	10,696	64,171	51.00	49.97	24	5,166	37,472	67.76	63.20
23	9,391	73,562	50.92	50.09	31	3,746	41,218	68.24	63.69
30	4,890	78,452	51.80	50.20	Jan. 7	4,537	45,755	67.51	64.03
Aug. 6	8,450	86,902	52.05	50.38	14	4,869	50,624	67.99	64.43
13	5,176	92,078	53.97	50.57	21	4,959	55,583	66.45	64.62
20	5,059	97,139	54.31	50.74	28	5,818	61,401	66.48	64.79
27	4,274	101,411	55.80	50.94	Feb. 4	5,611	67,012	66.42	64.94
Oct. 15	2,941	104,352	56.00	51.00	11	5,068	73,080	66.50	65.03
					18	5,045	77,125	66.36	65.07
					25	4,004	81,129	66.42	65.12
Average carrying charges (to March 1)						2.91			
Average cost to-date						53.91			

during the storage year 1947-1948.¹ Swift-Canadian made 9½ cents per lb. Mr. Olive conceded that his firm, Olive and Dorion Limited, made a net profit on storage operations of about 11 cents per lb.²

In summary then, the evidence indicates, and the witnesses confirm the fact that their respective firms made "absolutely unprecedented" profits on storage butter during that period in which ceilings were not in effect. At the prevailing market prices, however, the supplies of butter available were flowing freely to consumers. Shortages became acute after the re-imposition of the ceiling and at the end of the storage year as storage stocks were becoming depleted.

An Examination of the Spread Between the Price of Butter and Butterfat

Firms storing butter were admittedly making large profits during the period of rising prices. The question arises as to whether creameries were able to widen the spread between the price which they paid for butterfat and the price which they received for their butter. Table 99 was assembled for the purpose of answering this question.

An effort is made to measure the processor's spread by deducting from the price which the creamery receives for its butter (the wholesale price) the price paid to the farmer for the 4/5 of a lb. of butterfat which each pound of butter approximately contains. Montreal wholesale butter prices and average prices received by farmers for butterfat in the province of Quebec are used for this calculation. The spread between the creamery's selling price of butter and the cost of the fat component of this butter shows no significant increase over the period with which we are concerned. The apparent widening of the spread in December of 1947 and January 1948 may be attributable to sampling errors in the estimates of the price received by farmers for butterfat. Prior to May the subsidy on butterfat reduced the cost to the creamery. Thus while the farmer received an average of 53 cents per lb. for butterfat in April the creamery paid only 43 cents and the government the remaining 10 cents.

Despite some rather wide fluctuations, the spread between wholesale and retail prices shows no evidence of having widened during this period. The farmer benefited from the increasing price of butter by a corresponding increase in the price which he received for his butterfat. True, he did not secure the increase in the inventory value of butter stocks unless he happened to belong to a co-operative which was holding storage stocks. The creameries, on the other hand, continued to manufacture and sell butter during the decontrol period for about the same gross margin as they had received prior to decontrol.

SUMMARY AND CONCLUSIONS

The retail price of creamery butter increased from about 45 cents in April, 1947 to approximately 73 cents in January, 1948 as a result of the removal of subsidies, ceilings and rationing in May and June, 1947, and the desire of consumers to purchase, at prevailing market prices, more butter than was available. The apparent increase in butter prices was greater than the actual increase. Before the first of May, the tax-

¹Evidence, Special Committee on Prices, p. 1570.

²Ibid., p. 1188.

TABLE 99
 COMPARISON OF MONTREAL BUTTER PRICES AND PRICE RECEIVED BY FARMERS FOR BUTTERFAT^a
 MARCH 1947—MARCH 1948

	Average Wholesale Price No. 1 Solids, Montreal ^a	Average Retail Price Creamery Prints, Montreal ^b	Spread Between Wholesale and Retail (cents per lb.)	Average Price Paid to Quebec Farmers for Butterfat ^c	Cost to Processor of 4/5 lb. Butterfat ^d	Gross Spread Between Wholesale Price of Butter and Price Paid to Farmers for Butterfat Component
March 1947	40.0	45.4	5.4	52.3 (42.3)	33.8	6.2
April	40.0	45.4	5.4	53.0 (43.0)	34.4	5.6
May	48.5	54.1	5.6	52.0	41.6	6.9
June	49.75	55.1	5.35	52.8	42.2	7.6
July	49.875	55.1	5.225	53.0	42.4	7.5
August	55.25	55.2	-0.05	57.1	45.7	9.5
September	59.125	64.5	5.375	62.8	50.2	8.9
October	57.125	65.2	8.075	63.2	50.6	6.5
November	60.375	61.5	1.125	64.0	51.2	9.2
December	66.125	67.0	0.875	69.0	55.2	10.9
January 1948	68.0	72.8	4.8	72.5	58.0	10.0
February	67.5	72.0	4.5	72.0	57.6	9.9
March	67.5	71.6	4.1	75.0	60.0	7.5
April	67.5	72.5	5.0	76.0	60.8	6.7

a) Daily quotations, Canadian Commodity Exchange.

b) Quotations by independent retail merchants

c) Basis f. o. b. farm. Prices for March and April include Dominion government subsidy of 10c per lb. Prices, net of subsidy, paid by processor in parenthesis.

d) The minimum legal butterfat content of 1 lb. butter is 4/5 lb. butterfat.

Source: Evidence, Special Committee on Prices, pp. 1122 and ff.

payer was paying about 8½ cents of the price of a pound of butter in the form of a subsidy to the producer of butterfat. The removal of the subsidy to the butterfat producer immediately increased the price to the consumer by an equivalent amount. The government recovered the increase in the value of stocks from those firms holding butter inventories at the time the subsidy was removed and the ceiling raised.

Most of those firms storing butter did not build up abnormally large stocks and hold them in an effort to raise prices. They accumulated butter during the heavy period of production and they sold this butter to the trade as production declined during the winter months. The possibility that the government might, at any time, step in and reimpose ceilings probably acted as a deterrent to any firms who might otherwise have been inclined to hold out for higher prices.

Consumers, now freed from rationing restrictions and equipped with an unprecedented volume of disposable income, wished to buy more butter than was available. The price began to rise thus serving the function of allocating the available supplies of butter to those consumers willing and able to pay this higher price. As consumers became aware of an impending shortage they attempted to protect themselves by resorting to "ice-box hoarding". This practice served only to increase demand and thus accelerate the rate at which butter prices were increasing.

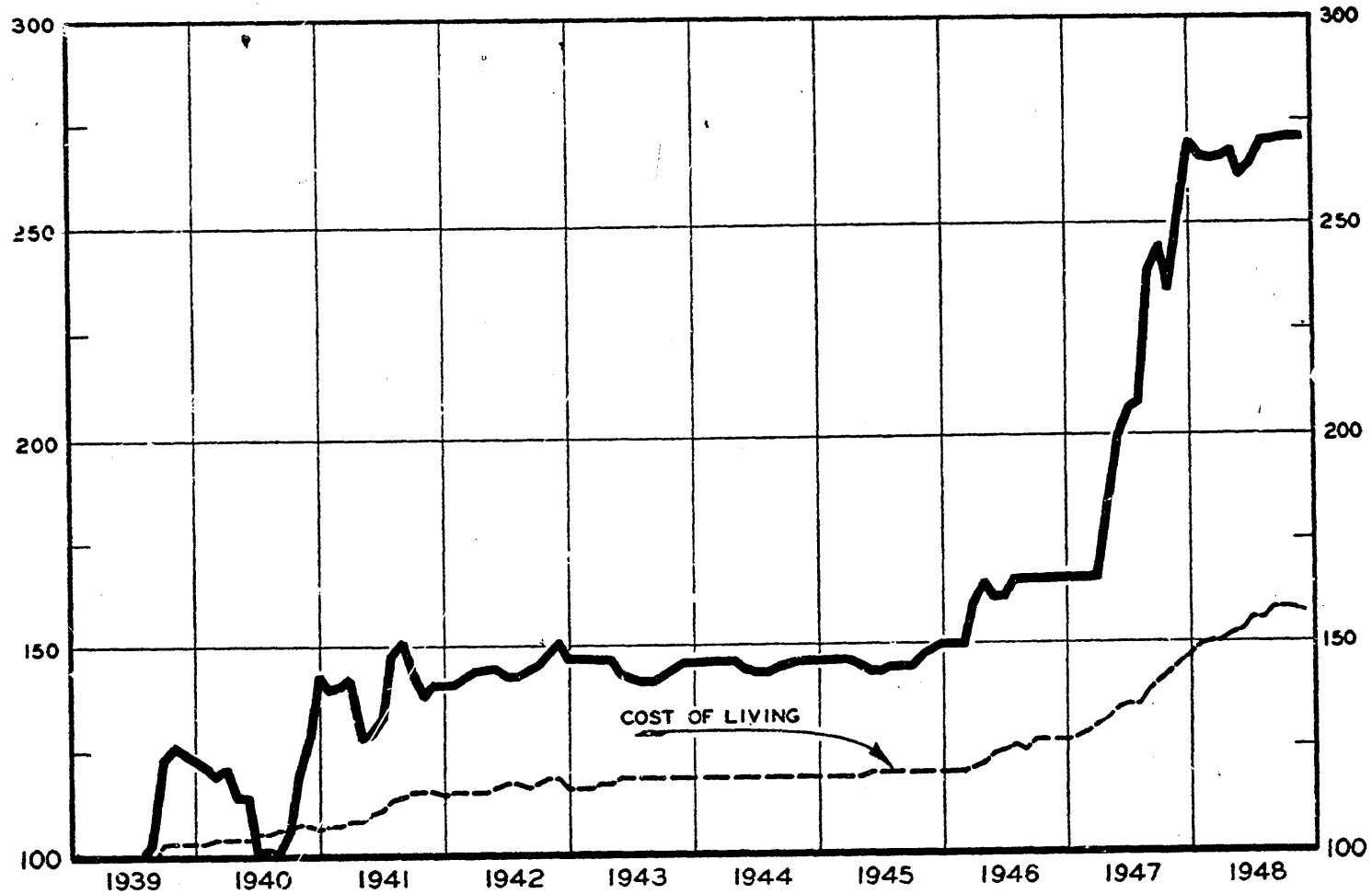
Although the dairy farmer's cost of producing butterfat did increase substantially as a result of the removal on October 22, 1947, of ceilings and subsidies on coarse grains, it was not this increase in cost which was primarily responsible for the increase in butter prices. Indeed the latter was well under way before feed grains were decontrolled. Cost determines price only insofar as it affects supply. While higher feed costs did exert some influence on the output of milk this factor would by itself have had a rather small total effect on the retail price of butter. The primary cause of higher butter prices was the release of a hitherto restrained consumer demand.

Under these circumstances those firms storing butter made "unprecedented profits" through no action of their own other than their normal one of storing butter in the summer for sale during the winter months. These net profits on storage butter were roughly 11 cents per lb. An examination of the accounts of those firms which appeared before the Special Committee on Prices shows that the average net profit on butter storage operations over a period of years has been less than one cent per lb. Firms have frequently incurred a loss on butter storage operations. These losses are either made up by profits in other years or offset by the profits of other enterprises which the firm also conducts.

Farmers received commensurately higher prices for their butterfat as butter prices advanced. They did not, of course, receive any part of the increase in value of the butter in storage unless they belonged to a co-operative which was holding butter. If prices had declined neither would they have incurred any loss on stored butter. The storage firms assume the risk of price changes during the storage period and in this particular year were handsomely rewarded for so doing.

CHART XI
BUTTER RETAIL PRICE INDEX

(AUGUST 1939 = 100)



Source: Dominion Bureau of Statistics, Ottawa.

4

THE LIVESTOCK AND MEAT INDUSTRY

TO encourage a greater production of badly needed meats and to enable farmers to meet increased production costs, ceiling prices of meats were raised at intervals throughout the period of price control between December, 1941, and October, 1947, and the price of meat to Canadian consumers advanced proportionately.

In addition to price ceilings, the Dominion government exercised further controls over price and supply by means of export controls, first brought into force in April, 1942, and through the power to negotiate export contracts, the first of which was made on November 1, 1939. Although both price controls and export allocations were removed in September, 1947, the remaining power to negotiate export contracts left a substantial degree of control in the hands of the government.

The final removal, in August, 1948, of the embargo on beef and cattle exports to the United States, which had been in force since October, 1942, completed the decontrol of these products and resulted in a further sharp increase in both beef and cattle prices. We are primarily concerned here with sorting out and appraising the principal factors which were directly responsible for the increased price of meats during the period immediately following formal price decontrol in October of 1947.

NATURE OF THE INDUSTRY

Canada produces a surplus of meat over and above our domestic requirements. The export price of this surplus, which is shipped either as dressed carcasses or live animals, is an important determinant of the price of meat to the Canadian consumer. Although veal, mutton and lamb are almost always available over the retail meat counter, their production and consumption are small relatively to that of pork and beef. In 1947 the industry produced 2.3 billion pounds, dressed weight, of pork, beef, veal, mutton and lamb. Pork and beef each accounted for, roughly, one billion pounds of this total; veal 154 million pounds and mutton and lamb 66 million pounds. In view of the relative importance of beef and pork as compared with other meats, the inquiry of the Special Committee was largely restricted to the extent and causes of the increased price of beef and pork to the consumer.

The average domestic per capita consumption of the four meats in 1947 was as follows: beef, 68 pounds; pork, 53 pounds; veal, 10 pounds; and mutton and lamb, five pounds. Canadians also ate five pounds of canned meat. The total per capita consumption of all meats during the year was 146 pounds as compared with an average consumption of 118

pounds during the 1935-1939 period.¹ This 28 pound increase in per capita consumption, combined with 12 per cent increase in population since 1939, adds up to a substantial over-all increase in the domestic disappearance of meat. Canadian farmers have nearly doubled their output of livestock since 1939 and this increased production has permitted the above increase in domestic consumption and, in addition, a doubling in the volume of exports.

Traditionally Canada has exported about 10 per cent of her total marketings of beef cattle, either as beef or live animals. In September, 1942, an embargo was placed upon the export of all livestock and red meats to the United States and our exportable surplus of beef was shipped to the United Kingdom. With the removal of this embargo in August, 1948, Canadian cattle, calves, beef and veal, have again moved into the United States in large volume. The best market for our bacon hogs continues to be the United Kingdom. Roughly 25 per cent of our marketings of hogs are sold, as Wiltshire sides,² to the British Ministry of Food through the agency of the Canadian Meat Board, under the terms of an inter-governmental export contract.

The livestock and meat industry may, for purposes of analysis, be conveniently divided into three phases. The first is the primary production of livestock on the farm, ranch and feedlot; the second is the killing of the live animal and its subsequent processing and distribution by the packing firm, and the third, the retail distribution of these meat products to consumers.

Primary Production of Livestock

Hogs and beef cattle are raised on farms from coast to coast in Canada.

Hogs

The areas of specialized hog production are in the St. Lawrence lowlands, including the Ontario peninsula, and in the parkbelt of the Prairie provinces, particularly that area between Edmonton and Calgary. Hog enterprise on most farms is relatively small, and is often complementary to the production of cream, cheese, grain or beef cattle. The production period for hogs is shorter than for most other kinds of livestock. The gestation period is about four months and another five to seven months are required to bring the pig to a market weight of from 200 to 225 pounds.

The marketing pattern for hogs exhibits a marked degree of seasonal variation. Sows intended to farrow in the spring are usually bred in December or early January and the pigs, born in late April or May, will come to market during the following November and December. A smaller crop of fall-farrowed pigs is marketed in March and April of the following year. The peak marketings, therefore, normally occur in November, December and early January with a lesser peak in March,

¹Dominion Bureau of Statistics, Ottawa.

²A Wiltshire side is a cured one-half hog carcass with head, feet, backbone and shoulder blades removed.

April and early May. Price normally displays a seasonal variation opposite to that of marketings. When hogs come to market in volume in the late fall and early spring, prices are at a seasonal low. During the summer and early fall, when marketings are light, prices are at a seasonal high.

This seasonal variation in hog prices performs a useful function in that it tends to encourage farmers to plan their breeding program in such a way as to have hogs ready for market when marketings are low and prices are at a seasonal high. Since it costs more to produce hogs at these off seasons, some increase in price is necessary if production is to be evened out over the year. This seasonal variation in hog prices has practically disappeared since export contracts with the United Kingdom for Wiltshire sides have been in effect. The contract price is a flat one and it therefore pays farmers to produce hogs at that season when production costs are lowest. This flat price tends to aggravate the difficulty of making regular export shipments throughout the summer months.

The supply of hogs coming to the market varies not only with the season of the year but also with breeders' expectations, at breeding time, as to the probable relationship which will prevail between the price of hogs when they are ready for market and the price of grain during the feeding period. The cost of feed grain is an important part of the cost of producing a hog, making up from three-fifths to three-quarters of the total cost. This relationship between hog prices and feed grain prices is usually expressed as a ratio between the price of hogs and the price of barley, known as the barley-hog ratio.¹ The supply of hogs, and therefore the price of pork products, varies with the price of feed grains. When we begin to seek the factors responsible for the increase in the price of pork we shall, for this reason, also have occasion to examine the factors determining the price of feed grains.

There are other significant factors in the supply of hogs. These include the prices of other farm crops, particularly grains in western Canada, even though these other crops are complementary to, rather than competitive with, hogs in farm operation. Many farmers in the Prairie provinces appear to reduce their hog enterprises whenever either the price or yield of grains increases. The effect on production seems to be through income. Many areas in the brown and dark brown soil zones of the Prairies are not too well suited for hogs, in that water is difficult to secure and forage crops hard to grow. These areas are best suited to the growing of cereal grains and, if farm income increases, farmers are not willing to put forth the additional effort required to market their grain through hogs rather than through the elevator.

Beef Cattle

The production of beef cattle is centred in that part of the Ontario peninsula bordering Georgian Bay and in central and southwestern

¹Specifically the barley-hog ratio is the number of bushels of No. 1 Feed barley, at Winnipeg, equal in value to 100 lbs. of live B-1 hog, also at Winnipeg.

Alberta. Although specialized cattle farms, or ranches, are located in these areas, many farms in all agricultural areas produce and sell a few head of beef cattle every year. On the small, general purpose farm the same herd may be kept for the production of both beef and milk. The calves are weaned off the cows and fed on skim milk until they are big enough to eat grain and roughage. Beef cattle are produced under range conditions in southern Alberta, south-western Saskatchewan, and in the Nicola Valley and the Cariboo country of British Columbia. Many of these ranch units are large; they may "run" anywhere from 100 to 10,000 head of cattle. Perhaps 10 per cent of the beef cattle marketed in the Prairie provinces is raised under range conditions; the rest come off the farms.

The cattle coming on to the market in Canada are of two types, grass-finished and grain-finished. The grass-finished cattle are, as the term suggests, directly off the grass; the grain-finished cattle have been fed grain and protein concentrates in a feedlot for a period of one to six months. Many of these fed cattle are finished in Ontario although much of the grain and many of the feeder cattle will have been shipped into the province from the west. The return to cattle feeders, and hence the supply of fed cattle, depends upon the spread between the price of feeder and fat cattle and also upon the relationship between the price of fat cattle and feed grain. Since many cattle are sold off the grass there is not as close a relationship between beef supplies and the price of grain as in the case of hogs. Moreover the production period for beef cattle is from two to three years as compared with nine to 11 months for hogs. The producers of grass cattle cannot know at the time they formulate their production plans what price they will receive for their cattle when the latter are ready for market.

There is a seasonal variation in both the marketings and price of beef cattle. Marketings are seasonally high in October and November and low through the summer months. Prices, on the other hand, are seasonally low during the fall and high during the summer. Some of the ceiling price orders in effect on beef during the war years took cognizance of this variation and permitted a higher price during the summer months.

The Marketing of Livestock

Farmers usually have some choice as to the way in which they will market their livestock. They may consign their hogs or cattle to a commission agent located at a public stockyard who will sell them as advantageously as possible. Secondly, they may sell directly to a buyer for a packing firm. Many farmers also sell to independent drovers who, in turn, re-sell either at the yards, or directly to a packer. The drover finances his operations, assumes risks of changing prices, and attempts to secure as wide a margin between his buying and selling prices as is consistent with the maintenance of the goodwill of those from whom he buys. Local butchers also buy livestock directly from farmers and kill in their own small slaughterhouses. Many butchers are now buying more

of their meat from the packing houses, if they are located close enough to the plant to make delivery economically feasible. Packers can frequently afford to sell a carcass to an independent butcher as cheaply as the latter can do his own killing since the packer is able to utilize the by-products more effectively.¹ In 1947, approximately 80 per cent of the hogs, 40 per cent of the cattle, 45 per cent of the calves and 60 per cent of the sheep and lambs marketed commercially, were sold directly to packers.

The grading regulations for hogs differ from those in effect for other kinds of livestock. Hogs are not graded as live animals, but rather as carcasses. This system of carcass grading is known, in the trade, as "rail grading". The payment to the farmer is made on the basis of this grade. On the other hand, market prices for cattle are quoted in terms of a grade on the live animal such as "choice", "good" or "medium". This grading is not done by a government grader. However, beef is graded "on the rail", that is, the carcass is graded, by a government grader. This grading is done on a voluntary basis and is designed to assist consumers. The main grades are, in descending order "red brand", "blue brand", "commercial", etc. Sales of cattle are not made on the basis of the rail grade, however, and there is no exact correspondence between the grade of the live animal and that of the carcass. Most "good" steers will yield blue brand carcasses but a few will yield red brand or commercial carcasses. The grading regulations for cattle, calves, sheep and lambs are, therefore, much less exact than those for hogs. Although market news is sufficiently well publicized to keep farmers informed of stockyard prices for certain "grades" of live animal, the primary producer cannot be sure of the grade into which his own stock will be classed.

The grading system also appears unnecessarily complex in that the Department of Agriculture has an alternative set of beef carcass grades; while Wiltshire sides are sold on the basis of a different grading system than that applied to hog carcasses.

The Processing-Distributing Industry

The processing-distributing industry contributes an important part of the final value of meat products. Although no statistical data on the share of the consumer's dollar received by the packer are available in Canada, a study in the United States, for the year 1939, shows the packer to have received about 20 per cent of the total retail value of meat including edible by-products for performing the various functions of slaughtering, processing and distributing.² This percentage return to the packer will probably be considerably less now than in 1939, although the absolute margin taken by the packer will be higher, since, as livestock and meat prices rise, the farmer receives an increasing percentage of the retail price, while the packer and retailer receive a decreasing percentage.

The principal services contributed by the processing-distributing industry are to slaughter livestock, process and store the meat, utilize

¹Evidence, Special Committee on Prices, p. 2481.

²United States Department of Agriculture. Technical Bulletin No. 932, January, 1947.

the by-products and, finally, to distribute the meat products to the retail trade, or to ship them for export. The larger packers process a sufficient volume of livestock to enable them to utilize effectively all by-products. For this reason the large plants are able to process livestock more cheaply than small plants which are not able to make use of all the by-products. Beef for the domestic market is not, as a general rule, held in the cooler for more than five or six days after slaughtering. The maximum, for the "ordinary trade" is about two weeks.¹ It is then delivered to the retail outlets in the form of sides or quarter carcasses.

Hog carcasses are handled in different ways, depending upon whether or not they are to be sold on the domestic market, or consigned to the Meat Board for export. Relatively few carcasses are sold as such to retailers for the fresh meat trade. Carcasses for domestic use are cut up by the packer. The various cuts receive varying degrees of processing. Some, such as the loin, are sold fresh; others, such as bacon and ham, are smoked and cured. The packer may further process his bacon by slicing, removing the rind, and wrapping in half-pound packages.

Most packing firms use cold storage warehouses to hold fresh meat over short periods of time, and to hold frozen carcasses and cuts from the period of seasonally heavy production to the period of relative scarcity. Although heavy livestock marketings occur in the autumn and early winter months, consumers require meat all year round. It is true that people may not eat as much meat during the summer months as they do during the winter. But the heavy influx of tourists in the summer does add appreciably to demand.

Thus, one of the functions of the processing industry is to carry, in warehouses, frozen meat from the season of plenty to the season of scarcity. The quantities of meat held in storage will depend upon packers' estimates of the prospects of recovering, at the later date, at least the original cost of the meat plus storage and handling charges. This is usually possible since, with lighter marketings during the summer, prices tend to be higher than during the period of heavy marketings.

In assessing the effects which the larger packing firms may be able to exert upon the price of their own product, the fact that Canada Packers' and Swift Canadian's combined stocks of all pork and frozen beef during 1947 were frequently more than 50 per cent of total storage holdings may be significant.

In selling meat to the retailers the packers accept telephoned orders and also send their salesmen out to contact the retailers and to take orders for meat. This meat is not offered at a standard price; the salesman bargains with each retailer as to the price of the product which the latter wants. This price making process will be analyzed in greater detail when we come to examine the factors determining the price of meats.

The representatives of the various packing firms which appeared before the Special Committee on Prices occasionally stated their belief

¹Evidence, Special Committee on Prices, p. 2715.

that the packing industry is highly competitive. One of the arguments which they advanced in support of this contention was the large number of persons or firms purchasing livestock on the various markets across Canada. One characteristic of the market which destroys much of the force of this argument is the high percentage of all purchases which are made by the three largest firms, Canada Packers, Swift Canadian, and Burns. Canada Packers included a table in their brief showing the percentage of the total inspected slaughterings of livestock which they killed.¹ Since other firms did not submit these data, Table 100 has been compiled to show the proportion of total inspected kill made by each of the four largest firms, during the period August, 1947, to February, 1948. Although the periods, on which data were available for the various firms, do not correspond exactly, the estimate of each company's share of the market is sufficiently accurate for our purpose.

TABLE 100
PROPORTION OF TOTAL INSPECTED, DRESSED WEIGHT OF BEEF AND PORK
PRODUCED BY FOUR FIRMS, AUGUST 1947—FEBRUARY 1948
(millions of pounds)

Company	Period	Beef		Pork	
		Amount	Per cent of total	Amount	Per cent of total
Canada Packers Ltd.	Aug. 15/47-Feb. 25/48	119.6	30	126.0	27
Swift Canadian Co. Ltd.	Aug. 1/47-Feb. 28/48	89.7	23	95.3	20
Burns & Co. Ltd.	Aug. 14/47-Feb. 25/48	50.0	13	64.6	14
Wilsil Ltd.	Aug. 10/47-Feb. 21/48	8.5	2	12.2	3
Total for four companies		267.8	67	298.1	64
Dressed weight of total inspected kill	Aug. 10/47-Feb. 21/48	397.1	100	466.4	100

Source: Dressed weight of total inspected kill calculated by multiplying inspected slaughterings by average dressed weights of cattle and hogs for 1947. These data are from the Livestock Market Review. The data for each firm were extracted from their respective submissions to the Special Committee on Prices.

Canada Packers' own calculation for the calendar year 1947 shows that firm to have killed 28 per cent of the inspected kill of cattle and 27 per cent of hogs. These data check closely with our estimates of 30 and 27 per cent for a shorter period as shown in Table 100.

Canada Packers, Swift Canadian and Burns handle roughly 65 per cent of the total inspected kill of cattle and 61 per cent of the inspected kill of hogs. These shares are not as high a percentage of total kill since some 36 per cent of the output of all meats was processed in non-inspected plants in 1947. In a number of the principal livestock markets, however, the share of the inspected kill handled by one or more of these large firms may be much larger. The Special Committee did not attempt to study these individual markets.

¹Evidence, Special Committee on Prices, p. 2701.

The Retail Industry

The third and final operation in the processing and marketing of meat is performed by the retailer. Retailers provide a variety of services, ranging from the cutting of carcasses into roasts, steaks and chops, the provision of credit and delivery services in some instances, to the display and sale of half-pound packages of bacon which have been sliced and wrapped by the packer. The retailer's margin includes compensation, not only for the performance of this variety of services, but also for losses in the weight of product in cutting, trimming and boning and from shrinkage attributable to loss of moisture while meats are held in cold storage. For all of these services retail meat dealers normally charge from 20 to 30 per cent of the retail price of the meat which they sell. It should be noted that retailers, as a group, consider the extra trouble of quoting mark-ups on their selling price, rather than on their cost price, to be worthwhile. To anyone accustomed to thinking of a percentage mark-up on cost price, this practice makes retailers' margins appear considerably smaller than they are. A mark-up of 20 per cent on the selling price is equivalent to one of 25 per cent on cost price while a mark-up of 25 per cent on selling price is equivalent to one of 33 1/3 per cent on cost price.

The data on retail mark-ups submitted by officials of the Wartime Prices and Trade Board indicate that the retailer was, during the early period of price control, receiving a margin equal to about 25 per cent of his selling price. The maximum mark-up permitted to the retailer on carcass beef, costing 19½ cents per pound, was seven cents in the Prices' Board order of July, 1946. Mr. F. S. Grisdale, Co-ordinator of Foods, Wartime Prices and Trade Board, reported that, during the course of the survey carried on by the Prices Board prior to the establishment of this maximum mark-up, retail margins varying from two to 12 cents per pound were found.¹

In answer to the question, "Do you say there is more competition in the retail end of the meat industry than there is in the packing end of the industry?" Mr. Hales, National Director of the Retail Meat Dealers Association, replied, "My answer to that would be yes. I think we in the retail field experience a very much higher degree of competition."²

There is evidence to substantiate Mr. Hales' argument. There are thousands of individual meat retailers, each of whom handles only a very small proportion of total sales. The degree to which any one of them can influence the price which he receives for his product would appear to be very slight. The entrance of such new and efficient competitors as the chain stores and super markets into the retail meat field may serve to reduce further the retailing margins which now prevail. Table 101 is included here to show a comparison between the retail prices at which Loblaw Groceries Ltd. sold fresh loins of pork during late 1947 and early 1948, together with its mark-up, and the average retail prices and

¹Evidence, Special Committee on Prices, p. 2464.

²Ibid., p. 2386.

mark-up, as secured by the Regional Offices of the Wartime Prices and Trade Board. However, one cannot make too strong a conclusion from data concerning one cut of meat only.

TABLE 101

LOINS OF PORK

COMPARISON OF AVERAGE RETAIL MARGIN, TORONTO, WITH MARGIN OF LOBLAW GROCETERIAS, LTD.

(cents per pound)

	Average Wholesale Prices, Toronto	Average Retail Prices, Toronto	Average Per Cent Mark-up	Loblaw's Cost	Loblaw's Selling Price	Loblaw's Per Cent Mark-up
1947						
Oct. 30	36	47	23.40	36	48	25.00
Nov. 13	35 $\frac{1}{4}$	47	25.00	34	45	24.25
1948						
Jan. 12	44 $\frac{1}{2}$	57	22.00	42 $\frac{1}{2}$	55	22.75
Jan. 26	44 $\frac{1}{2}$	59	24.50	42 $\frac{1}{2}$	55	22.75
Feb. 10	44	57	23.00	42 $\frac{1}{2}$	47	9.57
Feb. 24	44	58	24.00	42 $\frac{1}{2}$	47	9.57
Mar. 2	44	54	18.50	43	48	10.50
Mar. 9	44 $\frac{1}{2}$	52	14.00	43	48	10.50
Mar. 16	44 $\frac{1}{2}$	52	14.00	43	48	10.50
Mar. 30				45	51	11.75
Apr. 3				45	51	11.75
Apr. 10				45	53	15.00
Apr. 17				45	53	15.00

Source: Average prices supplied by Wartime Prices and Trade Board, Loblaw Groceterias Ltd., prices from Evidence, Special Committee on Prices, p. 2497.

Retailers, knowing what they have paid for a carcass of beef, establish an initial sales price for each cut which the carcass yields. If any particular cuts fail to move at this price the price will be reduced while the price of other cuts will, if possible, be increased.¹ As a result of higher pork prices resulting from the new and sharply increased export prices specified in the British bacon contract which became effective early in January, 1948, Loblaw's appear to have found it necessary, at times, to halve their usual margin in order to move pork.

The extent to which margins were reduced varies with the product. Table 101 shows a sharp reduction in the percentage margin on loins of pork; a comparable reduction was made in the margin on smoked hams while the percentage margin on beef was not reduced.² Retailers apparently vary the margin on various kinds of meat and on different cuts according to the elasticity of consumer demand for that kind or cut. If consumers will buy approximately the same quantities of any particular cut, even though the price has been raised a few cents per pound, the price of that cut will be raised. Conversely, if by so doing sales can be greatly increased, the price of some other cut may be lowered.

¹Evidence, Special Committee on Prices, p. 2510.

²Ibid., p. 2498.

It would appear that the purchaser of bacon, for example, is subsidizing the buyer of other types of meat. In other words, the retailer places a higher mark-up on bacon in order to cover the losses, or lower margins on other cuts. This procedure seems somewhat inequitable from the consumer's point of view.

The answer appears to be that the retailer attempts to keep his price on each cut as high as he can and still keep that cut moving. The price established for each cut tends toward a competitive, equilibrium price.

Although the reduced margins on any cut may leave retailers less than the average total cost of selling these particular cuts, including an allocated share of fixed overhead costs, they may still have been in excess of marginal retailing costs and hence cover a part of overhead costs. Although cost accountants do not set their accounts up in a way which will yield such information, this situation may account for retail firms continuing to sell at such a reduced mark-up as those found in Table 101.

The above hypothesis is borne out by the emphasis which Mr. W. W. Hussy, Director, Toronto and Ontario Branches, Retail Merchants Association, placed upon the proportion of total retailing costs which are fixed, with the consequent necessity of a high volume of sales to reduce unit costs.

One point which was raised repeatedly during the hearings on retail margins was the effect upon price, of the eight per cent dominion sales tax on smoked and cured meats such as bacon and hams. It was suggested that the retailer adds his percentage mark-up to his cost price, which includes the sales tax, with the result that the tax would, in fact, be more than eight per cent by the time the product reached the consumer. This in effect is the general argument used against the imposition of sales taxes at the early stage of processing.

The actual incidence of the sales tax is not easy to determine but we believe it is divided among the producers, processors, retailers and consumers of meats. The price to the consumer will probably be higher with the tax than without it, but this differential will be less than the tax itself. Consumers will also buy less meat with the tax in effect because of the higher price. This reduced volume will lower the profits of retailers and packers. The price which the latter will pay the farmer will, in turn, be reduced since the packer's offering price for livestock is derived from the price at which he can sell carcasses to the retailer.

If retail margins appear high, both absolutely and as a percentage of retail price, there is no evidence that these high retail margins are the result of imperfect competition among retailers. It does not follow, of course, that retail margins could not perhaps be reduced through improvements in retail practices. Comparatively little research along these lines has been carried out in Canada. A necessary first step would be the calculation of the share of the consumer's dollar received by the farmer, the processor-distributor and the retailer. This type of information would indicate those areas in which reductions in marketing costs might prove most significant.

PRICES GENERALLY AND WARTIME CONTROLS

The total demand for meat is a composite of the domestic demand and the export demand. The demand of domestic consumers for meat is a function of their disposable income,¹ the strength of their tastes for meats, as compared with such substitutes as fish, poultry, eggs, and cheese, and finally the relative price of meats and these meat substitutes. Perhaps the most influential of these various factors is consumers' income. Consumers ate 14 per cent more meat in 1947 than they did in 1939 although the price of meat had more than doubled by 1947. The explanation is to be found in the fact that in 1947 consumers had \$2.25 to spend for every dollar which they had to spend in 1939.

The first export contract for the sale of Wiltshire sides to the United Kingdom came into effect on November 1, 1939. The price specified was \$18.00 per cwt. for grade A Wiltshires, f.a.s. Canadian seaboard. A minimum quantity of 291 million lbs. was contracted for but there was no maximum. This contract automatically placed a floor under the price of pork in Canada, since packers would not sell on the domestic market for less than they could get by exporting. The Canadian consumer had either to pay the equivalent of the export price for pork or do without. On the other hand, the domestic price could not rise above the export price unless Canadians wished to consume more pork products than were being produced in Canada, or the Meat Board restricted the supply available to domestic consumers by allocating export quotas to the packers. Export quotas were eventually adopted and ceilings imposed on pork at the wholesale and retail levels. We find that export prices are still determining the domestic prices of both pork and beef.²

Let us now consider the factors affecting the supply of meat. Supply is discussed only with reference to a particular period of time. In the very short run, supply can be varied within much narrower limits than is possible over a longer period. Once hogs, fed cattle or lambs are ready for market, the producer is likely to find that holding them costs him more than he stands to gain. Similarly once a retailer receives a stock of meat he must sell it within a fairly short period of time or be prepared to accept losses resulting from deterioration. The packer can vary his supply somewhat more readily by either adding meat to, or withdrawing it from his frozen storage. One of the costs involved in this operation is the differential in price in favour of fresh, as compared with frozen meat.

The relative prices which farmers expect to receive for products which are alternatives in their production program and also the expected price of inputs exerts an important effect upon the supply of some classes of livestock over a period of time greater than one production period. We have seen that the barley-hog ratio at any given time may have an important effect upon the quantities of hogs marketed a year or a year and a half later. Similarly an increase in Prairie farmers' incomes from

¹Net income after the payment of income taxes.

²Autumn of 1948.

other enterprises may cause a contraction in their output of hogs. For these reasons the price of bacon in Toronto is partly determined by the price of barley, or even of wheat, in Winnipeg.

We propose to refer here, very briefly, to some of the salient features of the price control program, as it applied to hogs, beef cattle and feed grains. This sketch is intended only as a background to the study of policies which permitted the rising pork and beef prices of 1947 and 1948.

Pork

We have outlined the terms of the first export contract for hogs in 1939. The price was \$18.00 per cwt. Seven successive contracts were negotiated, covering the period up to December 31, 1948, and for varying quantities and, with the exception of one year, at ever increasing prices. A price of \$36.00 per cwt. was specified in the contract for 1948. During 1947 the contract price had been twice increased—from \$25.00 to \$27.00 per cwt. on January 11, 1947, and from \$27.00 to \$29.00 on September 3, 1947. On January 1, 1948, the price was again raised to \$36.00 per cwt. The 1948 contract for 225 million lbs. was not completely filled, indicating that the consumer in Canada competed with the consumer in the United Kingdom for his share of Canadian bacon. An increase in the price of Wiltshire sides from \$25.00 to \$36.00 in these two years tells the story of higher pork prices in Canada in 1947 and 1948. These increased prices for Wiltshire sides were reflected back to the farmer by way of higher prices for his hogs. Table 102 contains these average prices for the 1941-1948 period. Although farmers received correspondingly higher prices for their hogs as contracts were renegotiated, there may still have been an opportunity for packers to make substantial gains on pork inventories as higher contract prices came into effect. This possibility will be examined later.

Although export contract prices determined the price of pork in Canada the consumer might well ask if such high contract prices were necessary. If the price had not been raised by \$7.00 per cwt. on January, 1, 1948, would farmers have produced enough pork to satisfy the demands of Canadian consumers at this price and to meet our minimum export commitment? Mr. L. W. Pearsall¹ answered this question as follows:

"I think it is reasonable to assume that if there had not been a very substantial increase in the export price—at the same time I am not going to say whether it should have been \$6 or \$7—if there had not been a very substantial increase in the pork price it would have been reasonable to assume there would have been a very drastic and sharp reduction in hog production which would have affected our supplies in 1948 and 1949. Now, whether it would have the same effect on our supply of beef to a point where we would not have had a surplus for export or not, that would

¹Chairman of the Meat Board and Assistant Director, Marketing Service, Dominion Department of Agriculture.

TABLE 102
MONTHLY AVERAGE PRICE PER CWT. OF B-1 DRESSED HOGS^a AT TORONTO
1941-1948

(dollars per cwt.)

	1941	1942	1943	1944	1945	1946	1947	1948
January	11.08	15.31	16.86	17.11	17.63	18.80	21.71	28.10
February	11.26	15.16	16.91	17.11	17.46	18.67	21.38	28.31
March	11.33	15.29	17.16	17.18	17.80	17.73	21.38	28.69
April	11.27	15.19	16.73	17.18	17.47	19.35	21.63	28.42
May	12.14	15.26	16.78	17.20	17.62	19.86	21.60	28.72
June	13.46	15.49	16.78	17.21	18.50	20.82	21.65	30.14
July	14.62	15.85	16.84	17.33	19.21	20.90	22.01	30.91
August	14.62	16.11	16.85	17.43	18.70	21.15	22.53	33.28
September	14.65	15.60	16.79	17.42	17.93	20.42	22.81	32.88
October	14.78	16.38	16.75	17.27	17.32	19.87	22.09	31.48
November	14.78	16.44	16.92	17.24	17.37	20.17	22.60	30.35
December	14.89	16.63	17.10	17.63	17.80	20.80	22.78	30.70
Yearly Average	13.26	15.69	16.87	17.25	17.90	19.85	22.04	30.16

^{a)} 3-1 is the second highest hog grade. More Canadian hogs are graded B-1 than any other grade.
Source: Department of Agriculture, Markets Information Section.

be a debatable point; but it certainly would have brought about a reduction of supply."¹

During the war the Dominion government encouraged farmers to expand their output of hogs. The primary means used to accomplish this objective was to improve the relationship between the price of hogs and the price of feed grains. Price ceilings were placed on oats and barley in December, 1942, and January, 1943. Higher than ceiling prices were permitted to producers of these grains in the Prairie provinces through the payment of the so-called "equalization payments". In effect the Wheat Board exported oats and barley to the higher priced American market and pro-rated its net profits back to the producers of these feed grains. Freight assistance payments were instituted covering the freight charges on western grains and millfeeds moved from Fort William and Port Arthur to eastern Canada for feeding purposes. Since our export outlets for wheat on the European continent had been cut off farmers were paid to divert crop acreage from wheat to oats and barley. Finally marketing quotas were imposed on wheat while a subsidy of 25 cents per bushel was allowed to eastern feeders on feed wheat.

The combined effect of these policies was to raise hog production to the point where the Meat Board was able to export in excess of 600 million lbs. of bacon to the United Kingdom during each of three successive years, 1942, 1943 and 1944. Our exports under the first agreement in 1939 had been 331 million lbs. The great expansion in output occurred in the Prairie provinces. For a time Alberta produced more hogs than Ontario. Once the markets for wheat began to open up again and Prairie farmers who grew coarse grains and wheat realized that they received no subsidies on the coarse grains and feed wheat which they fed to their hogs, their enthusiasm for pig raising waned.² In 1946 Canada exported only 226 million lbs. of bacon to the United Kingdom.

Declining marketings pointed up the necessity for higher hog prices if even a moderate level of exports was to be retained over and above domestic consumption. Meat rationing at the consumer level had been dropped on March 27, 1947. A strike of packing house workers tied up the major processing plants from August 27 to October 22, 1947. Although the contract price for Wiltshire sides had been increased from \$27.00 to \$29.00 per cwt. on September 3, this increased price was not carried back to the farmer because those firms able to process hogs did not have to pay a higher price to get them. There was, in fact, a large backlog of hogs awaiting processing on which the owners were losing money because of feed costs and loss of grade as the hogs became overweight.

¹Evidence, Special Committee on Prices, p. 2461.

²A farmer holding a delivery permit from the Canadian Wheat Board could not buy feed wheat at the reduced price allowed to feeders. If he fed his own wheat or coarse grains he must place the same price on it as that which he could receive at his elevator. Only the farmer in eastern Canada, or the western farmer who grew no grain, was able to buy subsidized grain for feed. Since most hog producers in the Prairie provinces are also grain farmers, many of them expressed their resentment at what they considered a discriminatory policy by getting out of hogs.

On October 22, just as the strike ended, the Dominion government removed the ceilings and subsidies on coarse grains and also the ceilings on meats. Since export controls were left on meats and grains, and since the export contract for Wiltshire sides virtually determined the price of pork, there was no increase in domestic hog prices. The latter were still below their normal level in relation to export prices. There was, however, an immediate and substantial increase in the price of feed grain to the feeder in eastern Canada. The price of barley, net of subsidy, to the eastern feeder increased from about 68 cents per bushel, basis in store Fort William, to about \$1.25 per bushel. Oats increased from about 55 cents to approximately 85 cents per bushel. The price of millfeeds also increased by about \$10.00 per ton. Freight assistance payments were continued and are to remain in effect until, at least, July 31, 1949.

An increase of about \$4.00 per cwt. in the price of Wiltshire sides would have been necessary to restore the relationship existing between the price of hogs and the price of feed grains prior to the decontrol of the latter. Now given the benefit of hindsight, we can see that even an increase of \$6.00 per cwt. did not serve to call forth enough hogs to meet our revised bacon contract of 225 million lbs. in 1948.¹ The higher price looked too high to many consumers and they bought beef instead of pork, at least until the diverted demand had also raised the price of beef. Although the new contract price made the price of hogs very favourable relatively to the price of feed grains, it has proved sufficient only to check the decline in hog production. The available evidence strongly supports Mr. Pearsall's statement that,

"if there had not been a very substantial increase in the pork price it would have been reasonable to assume there would have been a very drastic and sharp reduction in hog production which would have affected our supplies in 1948 and 1949."

Beef

Price ceilings imposed on beef at the time of the first general price control order of December 1, 1941, were revised upwards several times prior to their final removal on October 22, 1947. These ceilings were imposed at both the retail and wholesale levels; no attempt was made to apply ceilings on the price paid to the farmer for his livestock. So long as the processing firms observed the wholesale ceilings these ceilings were reflected in the price paid to farmers for live cattle. At least one of the large packers alleged that smaller firms, by selling beef above the ceiling, were able to outbid them for cattle when cattle were scarce. An official of Canada Packers claimed that, for a time in 1946, in order "to stay in business", the firm paid one or two cents more for cattle than they could afford to pay and not lose money on the beef.²

¹The original contract called for 195 million lbs. It was revised upward in September when the beef contract was cancelled as a result of the opening of the United States market.

²Evidence, Special Committee on Prices, pp. 2144, 2176.

Canada's market for surplus live cattle has been the United States. In 1942, however, beef cattle were in short supply and, in order to enable Canadian packers to secure cattle at prices consistent with the wholesale ceiling, exports to the United States were brought under control, at first by licence, and finally on September 1, by an outright embargo. Domestic demand for limited supplies of beef kept prices in Canada at ceiling levels, especially since there were restrictions on the domestic consumption of pork; restrictions which were enforced by means of export quotas assigned to packers. Rationing of meats at the consumer level was adopted on May 27, 1943.

A number of sales agreements for beef were concluded with the United Kingdom. In all, four agreements were negotiated, although the first covered a period of two years, from January 1, 1944, to December 1, 1945. The quantities shipped to the United Kingdom steadily diminished from an average of 175 million lbs. for the first two years to 15 million lbs. in 1948. The contract price advanced from \$22.75 per cwt. for red brand carcasses, f.o.b. Canadian seaboard in the first agreement to \$27.50 for the last one in 1948. Prior to their complete removal in October, 1947, ceilings were raised each time a new and higher export price was agreed upon. A fairly good picture of the trend of beef and cattle prices since 1941 can be obtained from Table 103 which gives the average monthly prices of good steers at Toronto.

TABLE 103
AT TORONTO
MONTHLY AVERAGE PRICES, GOOD BUTCHER STEERS
UP TO 1050 POUNDS
1941-1948
(dollars per cwt.)

	1941	1942	1943	1944	1945	1946	1947	1948
January	8.37	9.35	11.36	11.78	11.37	11.88	13.86	15.21
February	8.58	9.71	11.64	11.76	11.26	12.10	13.98	15.29
March	8.62	10.00	11.77	11.68	11.54	12.12	14.24	15.44
April	8.58	10.36	11.75	11.61	11.90	12.28	14.66	16.44
May	8.61	10.91	11.79	11.78	12.31	12.60	15.05	17.94
June	8.78	12.44	12.40	12.04	12.57	13.89	15.28	20.79
July	8.71	10.63	12.53	11.71	12.12	13.22	14.47	21.01
August	8.79	9.94	11.92	11.10	11.70	12.54	14.02	22.42
September	8.95	10.45	11.28	11.04	11.03	12.35	13.92	21.75
October	8.81	10.05	11.06	10.51	10.56	12.28	13.70	21.07
November	8.63	10.16	11.19	10.63	10.70	12.37	13.51	21.10
December	8.90	10.89	11.68	11.04	11.60	12.61	14.19	21.30
Yearly Average	8.70	10.29	11.76	11.39	11.65	12.45	14.28	19.15

Source: Evidence, Special Committee on Prices, p. 1988.

Tables 104 and 105, showing the wholesale and retail prices of beef and pork carcasses and certain cuts before and after decontrol, are included here to point up the extent of the rise in price following the removal

of controls. It is evident that there were only slight increases in price between the removal of controls on October 22 and the third week in December. The packinghouse strike ended at the same time as the decontrol order was issued. The large backlog of cattle and hogs awaiting processing prevented any immediate increase in price. The export quotas which had been assigned to packers to insure an adequate shipment of hogs overseas were also relaxed. Although price controls were now formally off, the Dominion government still controlled the price of meat and livestock, since they controlled exports and negotiated the price of meat exports from Canada. The \$7.00 increase in the export price of Wiltshires and the \$3.00 increase in the contract price of red brand beef at the beginning of the new year brought about approximately equal increases in domestic wholesale prices. The relatively greater increase in the price of pork caused consumers to eat more beef and less pork.

TABLE 104
COMPARISON OF WHOLESALE PORK AND BEEF PRICES WITH FORMER
CEILING PRICES, TORONTO

(dollars per cwt.)

	Pork carcasses ^a	Red Beef carcasses
Former ceiling	\$25.75	\$25.00
Oct. 27, 1947	26.75	25.50
Dec. 11	26.50	26.50
Dec. 23	26.50	27.25
Dec. 31	28.00	28.00
March 2, 1948	34.00	27.50

a) Head off, leaf lard and kidney out.

Source: Evidence, Special Committee on Prices, pp. 1986, 1989.

TABLE 105
COMPARISON OF AVERAGE PRICES OF SELECTED CUTS OF RED BRAND BEEF
AND PORK AT RETAIL IN TORONTO WITH FORMER CEILINGS

(cents per lb)

	Sirloin Steak or Roast	Hamburger	Fresh Loin of Pork	Fancy side bacon (lb. package)
Former Ceiling	53	28	48	69
Oct. 30, 1947	53	28	47	71
Nov. 13	53 $\frac{3}{4}$	29	47	69 $\frac{1}{2}$
Jan. 12, 1948	59	30	57	77 $\frac{1}{2}$
Jan. 26	60	30	59	77
Feb. 10	60	31	57	78
Feb. 24	57 $\frac{1}{2}$	34	58	80
March 2	54	30	54	77 $\frac{1}{2}$
March 9	60	28	52	80
March 16	59	28 $\frac{1}{2}$	52	80

Source: Evidence, Special Committee on Prices, pp. 1987, 1989.

The upward trend in the price of beef received a sharp fillip in mid-August of 1948, when decontrol was finally completed by the removal of the embargo on the shipment of beef cattle and beef to the United States. Since this move was not unexpected, the price of cattle had strengthened during the late spring and summer. At the close of 1948, the price of good steers at Toronto was about \$7.00 per cwt. higher than at the close of 1947, and the increased price of cattle was reflected in correspondingly higher prices of beef to the Canadian consumer. Since storage stocks of beef were at a seasonal low in mid-August there were no opportunities for large gains on cold storage inventories, such as had occurred at the first of the year.

The removal of the embargo ruled out further shipments of beef to the United Kingdom at contract prices and the contract was accordingly cancelled after the shipment of 15.5 million pounds. Between August 16 and the end of the year over 83 million pounds of beef and 241,000 head of beef and feeder cattle had been shipped to the United States. The cattle exported were the better grades of fat cattle leaving a smaller proportion of what would be red and blue brand beef for domestic consumers. The following table indicates the change in the quality of domestic beef slaughtered in September, 1948, the first full month following the removal of the embargo on shipments to the United States compared with September, 1947. It will be noted that a very sharp drop in the percentage of beef graded as red brand or blue brand has occurred with the result that the Canadian consumer has been forced to accept the middle qualities of beef between the good and manufacturing grades.

TABLE 106
BEEF GRADINGS, CANADA, SEPTEMBER, 1947, AND SEPTEMBER, 1948
(per cent)

Month	Red	Blue	Commer- cial	Plain	Grade Cows	Commer- cial	Manuf- acturing	Bulls
Sept. 1947	11.2	21.6	29.1	6.7	12.5	5.6	8.3	5.0
Sept. 1948	2.9	7.2	23.8	9.9	13.8	10.3	22.8	9.0

Source: Dominion Department of Agriculture, Markets Information Section.

In terms of beef these combined shipments to the United States would have exceeded 200 million pounds. If the export embargo had not been removed it is possible the prices of Canadian cattle and beef would have declined.

The price of B-1 hogs at Toronto in late December of 1948, was about \$31.00 per cwt. as compared with \$28.00 at the beginning of the year. Although export contract prices had not been increased, packers were apparently able to sell to Canadian consumers those parts of the hog carcass not exported at sufficiently higher prices to warrant an increased price to producers. The higher price for beef had the effect of increasing the domestic demand for pork.

PRICE MAKING AND THE PROCESSOR'S MARGIN

The price which the primary producer receives for his livestock depends upon both the retail price of meat and the margins taken by the packer and the retailer. At pre-war prices for livestock and meats, these processing and retailing margins probably accounted for nearly half of the retail price. At the present high level of prices they will be less but we do not know how much less. The width of the margins taken by the packing firms will depend upon their efficiency and also upon their profits. Their profits may, in turn, be excessive if the firms operate under conditions of imperfect competition. The degree of competition obtaining in the markets in which the packers buy their livestock and sell their meats may, perhaps, best be judged by whether or not they are able to influence the price at which they buy or at which they sell.

In those industries in which the individual buyer or seller has little or no influence on the price of the product in which he is dealing, it will usually be found that any one firm handles only an insignificant proportion of the total product. Certainly no one farmer produces enough wheat, hogs or beef to enable him to exert any appreciable effect on the price which he may receive for these products. In this sense the farmer is in a highly competitive business. We have seen that the large packing firms do not operate in this kind of a market since three of them kill over 60 per cent of the total inspected slaughterings of both cattle and hogs. This fact does not, of course, prove that these firms do exert an influence on the price at which they buy and sell. It does establish a condition which would make it possible for them to do so.

In theory, the existence of imperfect competition among a small number of firms need not take the form of any explicit agreement on prices. It might well result in any one firm considering the effect any particular price which he asks or offers will have upon the prices of his competitors. No one firm is likely to raise its price to obtain a larger share of the material available, if it realizes that the remainder of the firms will raise their prices in retaliation with the result that they will all buy their former shares, but at higher prices. Smaller firms in an industry of this sort would likely pursue a policy of following the prices offered by the larger firms.

Asked for an opinion as to the attitude of smaller firms, whether or not they did follow the price set by the larger firms in this industry, a witness replied:

"We find for the most part that type of person is in and out of the business depending on whether it is profitable. If the market is fairly profitable then he will be in business in a big way, but as soon as the market turns to losses he gets out. For the most part I would suggest that they have to sell slightly lower—not much—but slightly lower than the packing plant.¹

As to the practice employed by the larger firms in setting prices their determination is left to the individual buyer or salesman, although

¹Evidence, Special Committee on Prices, p. 2372.

the packing firms each day set the maximum prices which their buyers may pay for livestock and the minimum prices at which they may sell meat. There is, therefore, no standard uniform price at which the packing houses buy any one kind and grade of livestock or at which they sell any one kind and grade of dressed meat. These buying and selling prices vary, not only from day to day, but also as among individual sellers of livestock and buyers of meat during the same day. This lack of a uniform, established price leaves the determination of the exact price to the individual buyer or seller. We may, with advantage, look at the buying and selling transactions separately.

Prices Paid for Livestock

The net profit, before payment of income taxes, which the packing companies are able to make depends upon two factors. The first is the gross margin between the price at which they buy livestock and the price at which they sell dressed meat, and the second is the cost of processing live animals on the hoof into dressed carcasses on the rail. In order to maximize net profits, before income taxes, the gross margin must be kept as wide as possible and the volume of livestock processed as large as possible.

In an industry such as meat packing, where a high proportion of total costs are for raw materials and where a large amount of the other costs are made up of fixed charges such as interest on the investment in plant and equipment, depreciation etc., which must be met irrespective of the level of output, it is possible to reduce average costs per pound of meat processed by expanding the volume handled. During the course of the hearings on meat the Special Committee attempted to discover how the prices which the various packing firms paid for livestock and received for meats were determined.

The packers secure live animals either by sending their buyers out directly to the farmer, rancher or feedlot operator or by purchasing livestock in the yards from a commission agent to whom the primary producer has consigned his cattle for sale. The packers may also buy in the yards from an independent drover who has himself bought cattle in the country in the hope of realizing a profit on their subsequent resale. In each case the buyer for the processor must strike a bargain with the seller. If the buyer goes out into the country and contacts the producer directly, the price which he pays will, within limits, depend upon how well informed the producer is as to the price prevailing in the yards for the various grades of cattle and also upon how good a judge the producer is of the quality of the cattle which he has to sell. Mr. J. S. McLean, President, Canada Packers, Ltd., referred to this variation in the prices paid to individual producers for the same class of cattle at the same time when he said "We buy dear cattle and we buy cheap cattle".¹

There is much greater scope for bargaining on the part of both buyer and seller in the selling of cattle, calves, sheep and lambs than in

¹Evidence, Special Committee on Prices, p. 2633.

the case of hogs. Since the latter are graded on the rail by the government graders, the buyer and seller have only to agree upon the price which will be paid for the various grades; they need not concern themselves with the grading of the hog itself. Most of the buyers employed by the packing companies have had a great deal of practical experience in appraising livestock. They are able to compare their rating of the live animal, whether it be medium, good or choice, with a government inspector's rating of the dressed carcass as commercial, blue brand or red brand.¹ In this respect they would appear to have a marked advantage over many small producers who sell directly to a packer buyer. The same statement holds true for transactions between small producers and drovers. It is less applicable to transactions between the packer buyers and commission agents who are more familiar with the grades of animals.

The buyer for the packing company receives specific instructions from his firm as to the top price which he may pay on any given day for the various classes of livestock. This is a maximum and not a fixed price. Mr. J. S. McLean has described the nature of one of these "trades":

"Every purchase of livestock is a trade. The packer always tries to buy his livestock as cheaply as he can. At any one time there is a recognized level of which both buyers and sellers are aware. For instance, when a lot of cattle is brought to market the cattle commission man who is selling those animals knows within 25 cents a hundred what he is going to get for them. The packer buyer knows within 25 cents a hundred what he is going to pay for them. The commission man starts by asking a little more than he expects to get and the packer starts by offering a little less than he expects to pay. That is the way every head of livestock in the country is bought—on that kind of a trade. So far as the packer is concerned he has been resisting this advance at the source because the packing industry is paying 2 cents a pound more for steers today and not because it wishes to do so. The packers have resisted that advance at every stage, step by step, but the thing which ultimately determines the level is the demand which exists in the country for beef."²

Given perfect competition among the various firms buying hogs we would expect a uniform price for, say, B-1 hogs for a given area which decreases as the distance from the killing plant, and hence freight costs, increases. Apparently the price in each area may sometimes depend upon whether there is more than one firm buying hogs in that particular area. Mr. H. W. Allen, President of the Alberta Livestock Co-operative Limited, brought out an example of this imperfection of competition in these words:

"Well, Mr. Chairman, particularly the co-operative associations in Alberta have objected to the variation in prices in the different

¹There is not a high degree of correlation between the grades of live cattle and the grades of dressed carcasses. "Good butcher" steers may yield "red brand", "blue brand" or "commercial" carcasses.

²Evidence, Special Committee on Prices, p. 2010.

areas of the same province. I am not referring to variation caused by distance but I mean variations in price in different areas which would be approximately the same distances from the packing centres. As I understand it, those variations exist because of competition between the packers for volume and in certain areas, which they call competitive areas, they will pay higher prices than they will pay in other areas. I am not suggesting the variations in price are serious as they run from 50 to 75 cents a hundredweight but, after all, we sell a standard product. The western farmer objected very strenuously in the old days to the variations in the price of wheat and we got the Canada Grain Act put into effect whereby a bushel of wheat sells at the same price all over Canada, allowing for freight differential. We believe that hogs, which are now graded pretty accurately, would be on the same basis and there is no reason for the variation which exists at the present time. We have taken this matter up with the packers on a number of occasions and I think most of them will admit it is just a practice that has grown up; they were more or less forced into the practice but they cannot really justify it."¹

The price prevailing for B-1 hogs in a "competitive area" which is some distance from the plant may, according to this evidence, be higher than that paid for hogs in the immediate vicinity of the plant. This practice would indicate that, if forced to do so in order to secure more hogs, the packing firm can afford to pay higher prices; that is, its marginal revenue, derived from processing additional hogs, exceeds the marginal cost of processing these hogs. In this particular instance the packing firms would appear not to be paying a competitive price equal to average costs plus normal profits, in the vicinity of the plant at Edmonton, Alberta. Such practices suggest an imperfectly competitive market for hogs.

Farmers have tried to protect themselves against livestock prices which the processor can, in some degree, control by organizing co-operative marketing associations, such as the Alberta Livestock Co-operative. This co-operative now handles approximately 30 per cent of the total hog marketings in Alberta. Marketing boards organized under provincial laws are intended to accomplish a similar objective.

Under the Ontario Hog Producers' Marketing Scheme provision is made for the appointment of a negotiating committee of 10 persons, five appointed by the Board and five by the licensed processors. This negotiating committee agrees upon a minimum price which is to be paid for hogs.

Prices Received for Dressed Meat

Just as there is no standard uniform price which the packing houses pay at any given time to the various sellers for the same class of cattle,

¹Evidence, Special Committee on Prices, p. 2104.

so there is no uniform price at which the packers are prepared to sell carcasses to their retail customers at any given time. Mr. J. S. McLean explained that the salesmen for Canada Packers, and they have "three or four hundred on the road every day", go around to the retail outlets with an order book. The salesman "haggles" with the retailer over the exact price, although the salesman has instructions not to sell below a specified minimum. Canada Packers, moreover, still reserves the right to refuse to fill any or all of these orders if they are "taken at an extremely low price". Mr. McLean's own evidence is as follows:

"Every sale of beef, and each sale of beef, is a matter of cattle trading—there are no standard prices, there are no prices worked out as average prices for the various brands of beef. You have that on page 68, as an example, those are the average prices—costs—by weights; and that is a general guide as to what we ask for the beef; but any sale of beef, every sale of beef that is made in Canada, and there are hundreds of thousands of them, are conducted in just the same way as I have described in regard to cattle. The packer's salesman, the customer wanting red brand beef, asks him a certain price; and the butcher tells him something less—he says, well, I can buy from Swift's or from Wilsil's, or from Schneider's or one of the other companies, for so much. And that happens in every sale. Today, I think probably the packing industry is a separate industry by itself in that respect. We have no standard prices nor do we raise the prices on beef. If you are thinking about lumber, for instance—or steel sheets, or a whole lot of other commodities which one might name—there is always a standard price and all trades are at that price. In the packing industry there is an entirely different situation; and I think with that explanation I can finish up the answer to your question by saying that in each case we get as much as we can, we buy the cattle as cheaply as we can and we sell beef for as much as we can".¹

There is thus no standard price for carcasses as there are for such highly standardized commodities as butter or grain which are traded on organized exchanges. The price which any individual retailer pays will likely depend upon his bargaining ability, upon the quantity of meat which he wishes to buy, or, perhaps, upon his buying some other commodity. Mr. McLean again brought out this latter point in reply to a question as to what part competition played in the determination of the firm's selling price.

"On thousands of sales we sell for something less than cost and on thousands of others we sell for something more than cost, and each year the net result of it works out to what I have shown you, it is a small fraction of a cent a pound. Now, that has been going on. That is, in the packing industry no individual sale can be good because the price is too high and no individual sale is a

¹Evidence, Special Committee on Prices, p. 2620.

bad sale because the price is too low. What happens is that you have, I was going to say a duel—you have a bargaining arrangement in between the salesman and the retailer with the result that sometimes the salesman will take too low a price on beef in order to get an order on something else".¹

Processors' Profits

Typically the larger firms in the packing industry make very small profits per pound of product handled. For the 13 fiscal years from 1936 to 1948 Canada Packers averaged a net profit, before income taxes, of one third of a cent per pound.² The company more frequently quotes an estimate of average "net profits" for this period of one-seventh of a cent per pound. "Net profit" in this case is gross profit less income taxes and also less amounts set aside as "inventory reserves". These latter are simply reserves. In a year of large profits an arbitrary amount is set aside "against a rainy day". In the fiscal year 1947-1948 Canada Packers set aside, as inventory reserves, the \$626,000 which it netted on storage butter. Similar reserves, varying from \$380,000 to \$1,310,900 were set aside during each of the six years from 1940 to 1945. The Income Tax Branch of the Department of National Revenue does not recognize "inventory reserves" as being deductible in the calculation of net taxable income.

In appraising the earnings of a firm, net income before taxes is a much more meaningful guide to most people than net income after taxes. Any estimate of net income after taxes is even less significant if a large and completely arbitrary deduction has first been made for "inventory reserves". Moreover when this "net profit" figure has been converted to a "per pound of product" basis by dividing by the aggregate pounds of everything which the company has "produced" from "red brand beef and soap" to tankage and fertilizer, it means even less.

An estimate of net profits after payment of all expenses, but before the payment of corporation income taxes, or the setting aside of "inventory reserves", is the customary, and still the most significant indicator of the return to capital. On this basis, for the fiscal year ending in March, 1948, Canada Packers made a net profit of \$6,444,000 on a capital investment of \$27,490,392.² The rate of profit is therefore 23.4 per cent. However Canada Packers has, since 1936, paid to its employees, as bonuses, an amount roughly equal to its distribution of dividends to shareholders. Our calculation above implies that employees receiving bonuses are really participating in the profits of the firm. Since bonuses are varied directly with net profits this seems a reasonable assumption. If, however, bonuses are to be regarded as a part of wages, and hence deductible from net profits, the rate of profit for 1947-1948 would be reduced to 18 per cent.

Relatively to their respective shares of the livestock market, the profits of Swift Canadian and Burns are small as compared with Canada

¹Evidence, Special Committee on Prices, p. 2695.

²This is Mr. J. S. McLean's own estimate of the "shareholders' investment" as of March 27, 1947. Evidence, Special Committee on Prices, p. 2638.

Packers.¹ There is no estimate available of their capital investment to permit calculation of a rate of profit. The general picture is, however, fairly clear. The large processing firms are efficient and, although realizing rather small profits per unit of output, earn substantial returns on their investments. The very heavy capital investment required to process large quantities of livestock, together with apparently decreasing costs as the scale of the business expands, tend to keep out competitors despite very attractive returns on investment. Although some of the profits of packers may be attributable to their ability to influence the prices at which they buy and sell, the large packing firms may well be providing processing services at lower costs per pound than larger numbers of smaller, highly competitive firms would be able to offer.

THE EFFECT OF DECONTROL AND HIGHER EXPORT CONTRACT PRICES ON PACKERS' PROFITS

The packing industry was twice presented with a set of conditions permitting the making of exceptional profits on meat within an interval of a few months. The first occurred with the simultaneous removal of formal price ceilings and the settlement of the packing house strike in October, 1947; the second with the re-negotiation of the export contracts on pork and beef at the beginning of 1948. Although profits realized from each of these circumstances cannot be separated in the firms' accounts, we will deal with them separately.

The Removal of Ceilings and the Settlement of the Strike

A comparison of the profits of the three major packing firms, for the four months following the decontrol of prices in October, 1947, with those for a similar four month period in 1946-1948, is made in Tables 107 and 108. Although the volume of sales for these two periods was approximately equal, combined net profits (before the deduction of incomes taxes and inventory reserves) were \$4.3 million in 1947-1948 as compared with \$0.9 million in 1946-1947. On a per pound of product processed basis, profits were 0.26 cents in 1946-1947 and 1.15 cents in 1947-1948.

These rather high profits after decontrol might more properly be attributed to conditions existing after the packing house workers' strike than to the removal of formal price ceilings. The contract price of Wiltshire sides had been increased during the strike while the pressure of livestock awaiting processing services was intense as farmers were losing money every day they had to hold over-ready hogs. The three firms averaged net profits of more than 2¼ cents per pound for the month of November.

In February, two of the three firms sustained losses on their meat operations as processing margins narrowed and the volume of livestock

¹The net profits of these two firms are to be found in the Evidence, Special Committee on Prices, pp. 2237, 2341.

processed declined. Consumers were finding it difficult to accustom themselves to the sharp increase in meat prices and, in some localities, were curtailing their purchases.

Fortuitous Gains on Inventory Accruing to Packers as a Result of Higher Export Prices

Higher contract prices with the United Kingdom for pork and beef came into effect on January 1, 1948, and these higher export prices almost immediately brought the domestic price up by an equivalent amount. The data in Table 104 indicate that the price of pork carcasses at Toronto was \$34.00 per cwt. on March 2, 1948, as compared with \$26.50 on December 23, 1947. Red brand beef carcasses were up \$2.00 per cwt. over the same period. Estimates of cold storage holdings of meat as of January 1, 1948, supplied by the Dominion Bureau of Statistics, show inventories of 42.9 million pounds of beef and 57.5 million pounds of pork. The beef inventory was thus at an all time high, while that for pork, although not a record, was well above normal. These facts would indicate that those firms holding large inventories of beef and pork at the end of 1947 may have realized large gains on the value of their inventories.

Now the firms storing this meat would not stand to make any inventory gain on that part of their inventories which had been consigned to the Meat Board. Mr. Pearsall, outlined the mechanics of the Board's purchases of beef. He said:

"Specifications for beef that is offered to the Board provide that it must be offered not later than 5 days after slaughter. During the first week of January, after the price was increased, our inspectors at the plant—were instructed to identify the day's slaughterings; and any slaughterings prior to December 31, would be settled for on the 1947 price."

Purchases of pork were handled in a similar fashion.

"On pork, each week the packer is required to file a statement showing the quantity in store and the quantity put into the freezer on account of the Board. . . . Any Wiltshire sides. . . that were in freezer for the account of the Board prior to December 31, would be settled for as on last year's price."¹

If we are to assess the inventory gains realized by the firms storing meat it is essential to distinguish that part of the total inventories at January 1, 1948, held for the account of the Meat Board. The Special Committee did not request the various packing firms appearing before it to submit their inventory statistics in such a way as to give this breakdown. One firm, Canada Packers, which almost invariably submitted very complete and well organized statistical data, did give this necessary breakdown. They are summarized, along with the inventories for other companies, and the total for Canada in Table 109.

The three large packing firms and Wilsil, among themselves, held over two-thirds of the total holdings of beef and pork. Although Canada

¹Evidence, Special Committee on Prices, p. 2463.

Packers held 14.8 million pounds of pork, only 1.5 millions were for the account of the Meat Board and the firm would stand to make very substantial inventory gains on over 13 million pounds. Although this firm held 10.1 million pounds of beef, only 2.2 million pounds were held for the Meat Board and for customers; the firm would sell the remainder at the higher prices prevailing after January 1. Burns and Co. held a similar small proportion of their total pork inventory for the Meat Board. If the other firms were holding as small a part of their total inventories for the Meat Board as were Canada Packers, they all made substantial profits on their holdings of beef and pork.

SUMMARY AND CONCLUSIONS

Canadian consumers paid moderately higher prices for pork and beef in 1947 and sharply increased prices in 1948. The removal of formal price controls in October, 1947, did not lead to any immediate price increase, partly because of the packing house strike, but mainly because the real control of prices lay in the control of exports and of export prices which, in turn, were fixed by contract with the United Kingdom. The contract price of pork was raised twice during 1947, each time by \$2.00 per cwt. Since Canada was producing a surplus of pork over and above her own consumption, the price paid for this surplus determined the price in Canada and the domestic price, therefore, increased as the contract price was raised.

As of January 1, 1948, the contract price for Wiltshire sides was raised by a further \$7.00 per cwt., and that of red brand beef by \$2.00 a cwt., and again the domestic price of both meats moved up by an equivalent amount. Since the new prices were negotiated between two governments, rather than determined by the impersonal forces of demand and supply, it might be argued that the increase in the bacon price was more than necessary. It seems likely that increased feed costs resulting from the removal of ceilings and subsidies on feed grains would have sharply checked the output of hogs, failing a substantial increase in their price. Even with this higher price Canadian farmers failed to produce enough hogs to fill a fairly modest export contract for 225 million pounds of bacon in 1948. The price of hogs in Canada in 1948 was roughly the same as in the United States. The real control on the price of beef in Canada was the embargo on the export of cattle and beef to the United States. This fact became apparent even before the removal of the embargo since cattle and beef prices rose as farmers restricted marketings in anticipation of entry to the higher priced American market. Spokesmen for the cattle industry presented statistics to the Special Committee showing the increased cost of producing cattle. The supply of "grass" cattle is much less dependent upon the price of feed grains than is the supply of hogs and an increase in prices was not essential to the maintenance of this supply.

The cattleman did have a strong case for re-admission to his traditional export market in the United States, since neither the market

in the United Kingdom or in Canada was prepared to absorb the volume of cattle offered for sale in late 1948. The 1948 contract with the British Ministry of Food called for 50 million pounds of beef. Our exports of beef and beef cattle during the year exceeded 215 million pounds, all but about 15 million pounds going to the United States. These exports made a material contribution to our supplies of scarce United States dollars.

The three largest packing firms in Canada submitted accounts to the Special Committee which showed that they made a combined net profit of \$4.3 million in the four months following the simultaneous removal of price controls on meats and the settlement of the packing house workers' strike in late October, 1947. Market conditions following the strike probably had greater effect on these profits than the removal of controls. Profits for the corresponding period in 1946-1947 were less than one million dollars.

Those firms owning beef and pork in cold storage at the end of 1947 made substantial fortuitous gains as a result of inventory appreciation, as market prices advanced with the increased United Kingdom contract prices. No such inventory profits were made on meat consigned to the Meat Board. Although complete data on the quantity of such consignments were not furnished to the Special Committee, the information available indicates that it was a very small percentage of total holdings. The four firms, Canada Packers, Swift Canadian, Burns and Wilsil held over two-thirds of the total cold storage stocks. The inventories of beef as of January 1, 1948, were at record levels; those of pork, while not a record, were relatively large.

Packers' net profits may be only a fraction of a cent per pound, but because of their extremely large volume, these profits may be a high percentage of the capital invested in the firm. One firm submitting accounts to the Special Committee made net profits in excess of 23 per cent of its capital investment during its fiscal year ending in March, 1948. Firms tend to disguise these high profits in their annual reports by making such deductions as corporation income taxes, additions to "inventory reserves" and bonuses to employees before calculation of "net" profits. However, it is still a fair statement that, even by taking no profits during late 1947 and early 1948, packers could not have made any great contribution towards lowering the price of meat to consumers.

Packers' assertions that their industry is highly competitive may not be warranted by the facts, if by "highly competitive", we mean that no one firm is able to influence the price at which it buys or sells. This, of course, does not mean that rivalry does not exist between these firms. The "Big Three", Canada Packers, Swift Canadian and Burns, killed over 60 per cent of the total inspected slaughterings of cattle and hogs. Canada Packers alone slaughtered 30 per cent of the cattle and 27 per cent of the hogs killed in inspected plants. Under these circumstances any one of these firms must be aware that any change which it makes in either its buying or selling prices will have an effect upon the prices

TABLE 107

SUMMARY OF OPERATIONS OF THREE PACKING FIRMS, NOVEMBER, 1946—FEBRUARY, 1947

	November, 1946	December, 1946	January, 1947	February, 1947	Total 4 months
Volume (thousands of pounds)					
Canada Packers Ltd., Packing Plants	56,218	36,381	32,219	31,982	156,800
Swift Canadian Co. Ltd.	37,016	25,642	22,066	25,953	110,677
Burns and Company, Ltd.	24,534	23,080	19,797	15,819	83,229
Total	117,768	85,103	74,081	73,754	350,706
Profit from Meat Operations (dollars)					
Canada Packers Packing Plants	\$127,228	\$144,128 ^a	\$ 49,286	\$ 95,964	—
Branches	3,295	4,040 ^a	23,511	5,396	—
	130,523	148,168 ^a	72,797	101,360	156,512
Swift Canadian Co. Ltd.	280,178	4,649 ^a	73,641	38,792	387,962
Burns & Co. Ltd.	61,578	118,172	130,837	57,556	368,143
Total	\$472,279	\$ 34,645^a	\$277,275	\$197,708	\$912,617
Profit per pound of meat sales (cents per pound)					
Canada Packers Ltd.	.23	.40 ^a	.23	.32	.10
Swift Canadian Co. Ltd.	.76	.02 ^a	.33	.15	.35
Burns & Co. Ltd.	.25	.51	.66	.36	.44
Total	.40	.04^a	.37	.27	.26

^a) Loss.

Source: Evidence, Special Committee on Prices, p. 3959.

TABLE 108

SUMMARY OF OPERATIONS OF THREE PACKING FIRMS, NOVEMBER, 1947—FEBRUARY, 1948

	November, 1947	December, 1947	January, 1948	February, 1948	Total 4 months
Volume (thousands of pounds)					
Canada Packers Ltd. Packing Plants	53,448	44,099	36,524	38,982	173,053
Swift Canadian Co. Ltd.	39,960	27,770	23,909	30,517	119,156
Burns & Co. Ltd.	23,049	19,855	19,804	17,609	80,317
Total	113,457	91,724	80,237	87,108	372,526
Profit from Meat Operations					
Canada Packers Ltd. Packing Plants	\$1,207,582	\$480,273	\$500,963	\$ 16,727	
Branches	52,543	24,548	79,525	30,978	
	1,260,125	504,821	580,488	47,705	2,393,139
Swift Canadian Co. Ltd.	991,285	336,424	261,335	262,799 ^a	1,326,245
Burns & Co. Ltd.	342,062	64,154	167,069	3,833 ^a	569,452
Total	\$2,593,472	\$905,399	\$1,008,892	\$218,927 ^a	\$4,288,836
Profit per pound of meat sales (cents per pound)					
Canada Packers Ltd.	2.36	1.14	1.59	.12	1.38
Swift Canadian Co. Ltd.	2.68	1.21	1.09	.86 ^a	1.11
Burns & Co. Ltd.	1.48	0.52	.84	.02 ^a	.71
Total	2.29	0.99	1.26	.25 ^a	1.15

^a) Loss.

Source: Data submitted by firms to Special Committee on Prices, p. 8959.

TABLE 109

TOTAL INVENTORIES IN CANADA OF BEEF AND PORK AND THOSE OF FOUR PACKING FIRMS AS OF JANUARY 1, 1948

(millions of pounds)

	Canada Packers Ltd. Dec. 31, 1947	Swift Canadian Co. Ltd. Jan. 3, 1948	Burns & Co. Ltd. Dec. 31, 1948	Wilsil Ltd. Dec. 27, 1947	Total Canada
Frozen Beef	5.5	4.9	5.1	1.1	
(a) Stored for Meat Board	0.8				
(b) Stored on Contract for Customers	1.4				
(c) Other	3.3				
Other Beef	4.6	4.2	1.3	0.5	
Total Beef	10.1	9.1	6.4	1.6	42.9
Frozen Pork	5.4	7.4	4.7	1.9	35.8
(a) Meat Board	0.5		2		
(b) Other	4.9				
Other Pork	9.4	8.8	4.0	1.1	21.7
(a) Meat Board	1.0		1.3		
(b) Other	8.4		2.7		
Total Pork	14.8	16.2	8.7	3.0	57.5

Source: Data on inventories submitted by firms to the Special Committee on Prices. Inventories for Canada compiled by the Dominion Bureau of Statistics, Ottawa.

paid or charged by the other firms, and that the action of these other firms will, in turn, react upon its own purchases and sales.

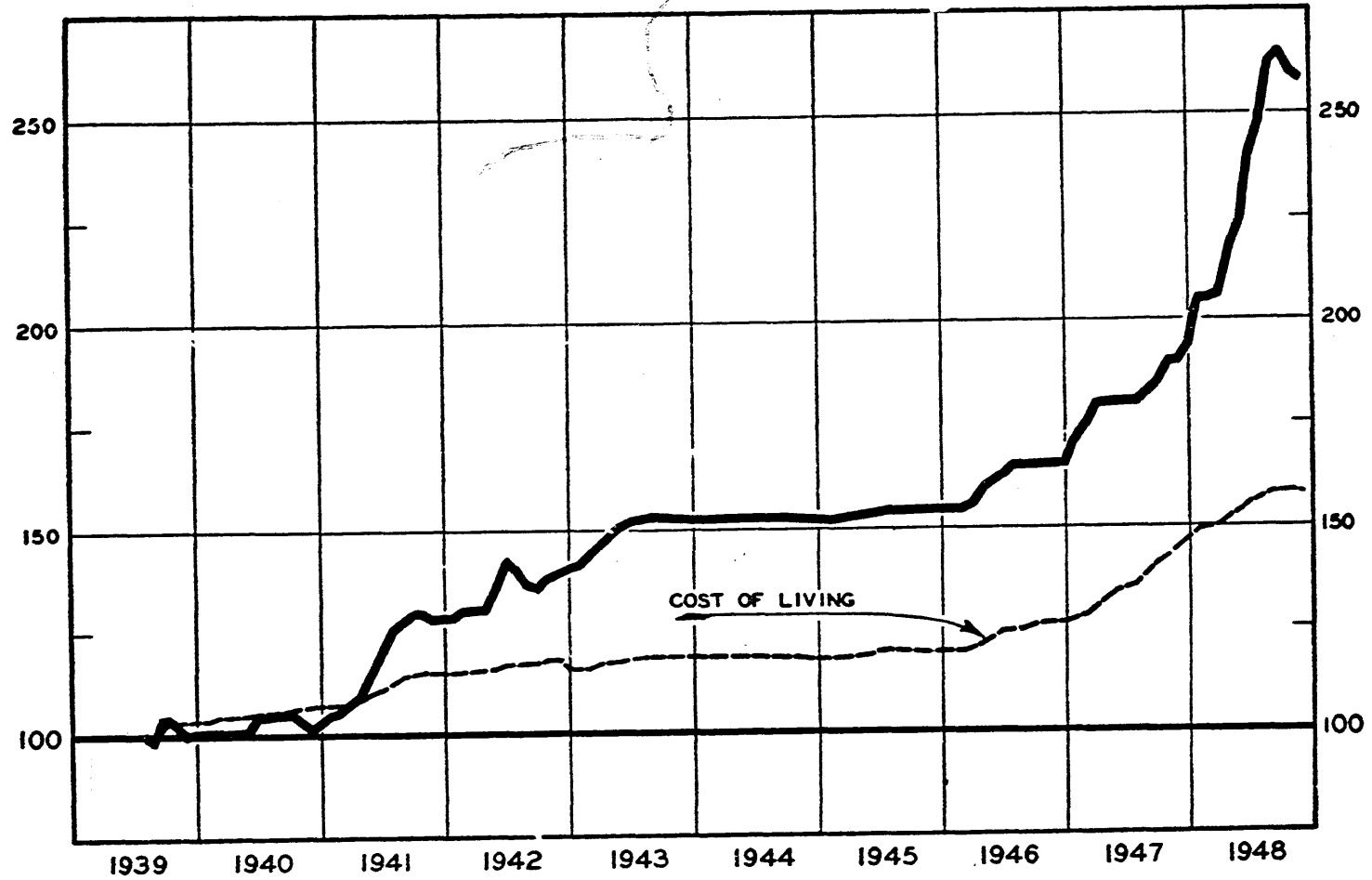
There is evidence to indicate that the buying and selling prices of the smaller firms are patterned upon those of the larger firms. There is competition among the large packing firms but it is not "perfect" competition, such as prevails in the primary livestock industry or in the retail industry. Farmers and retailers are able to exert little or no influence upon the price which they receive for their products in open markets.

An examination of the present practice of selling cattle on the basis of live grades indicates that non-specialized cattle producers may be at a disadvantage in bargaining with experienced buyers. Although cattle producers can follow the price of "choice", "good", or "medium" steers on the livestock markets by means of the newspaper or radio, they are not able to classify their own cattle accurately into these categories. Expert witnesses who appeared before the Special Committee indicated that there was no exact correspondence between the accepted grades of live cattle and the grades placed on beef carcasses. "Good" steers usually, but not always, yield "blue brand" carcasses. Further study of the applicability to beef cattle of a rail grading system, similar to that now in effect for hogs, seems warranted.

Although the combined margins taken by meat processors, distributors and retailers normally amount to upwards of 50 per cent of the retail value of this meat, relatively little research has been undertaken in Canada on ways of reducing these marketing costs. A convenient place to start would be in calculating the farmers' share of the consumer's dollar for some, at least, of the more important farm products.

CHART XII
MEAT RETAIL PRICE INDEX

(AUGUST 1939 = 100)



Source: Dominion Bureau of Statistics, Ottawa.

5

FRUITS AND VEGETABLES

BECAUSE of the very sharp rise in the prices of fruits and vegetables which occurred during the winter of 1947-1948, the Special Committee on Prices selected this industry for scrutiny during its hearings. The price rise was particularly evident in the case of fresh vegetables whose retail price index rose from 152.6 in November, 1947, to 227.5 in July, 1948. Until that time, the rise in prices of fruits and vegetables did not seem to be out of line with the general advance that had occurred in farm product prices.

We have found factors affecting the supply and prices of fruits and vegetables in Canada to be exceedingly diverse. Fruits and vegetables grown in Canada, may be sold either in the fresh state or in processed form. Both of these markets compete for the growers' output on the supply side and for the consumers' dollar on the selling side. The fresh product, in turn, may be sold immediately or kept in cold storage for several months or longer. Imports supplement our domestic supply, particularly for fresh fruits and vegetables. In addition, for some products such as apples and potatoes, Canada has a substantial export market. The seasonal character of Canadian production together with the perishability of many fresh fruits and vegetables, also exerts an influence on prices. In the summer and fall when the local market is at its peak, prices fall. During the winter and spring when local supplies are scarce, higher prices prevail.

CANADIAN PRODUCTION OF FRUIT AND VEGETABLES

Canada's commercial production of fruits and vegetables, forms a relatively small part of the total farming picture. In recent years only about six or seven per cent of total Canadian cash farm income has come from the sale of these products. But for a number of small areas which provide the bulk of our commercial output, it provides the main source of income.

For fruits a favourable climate is particularly important and commercial production is concentrated in four specialized geographic regions: the Fraser and Okanagan valleys in British Columbia, the Niagara peninsula in Ontario and the Annapolis valley in Nova Scotia. In 1947, these three provinces produced almost 90 per cent of Canada's total out-

put. Apples are the most important crop, accounting for about one-half of the total value of fruit production. Next in order of importance come strawberries, peaches, raspberries, grapes and pears. Some data on the value and output of commercial fruit production in Canada, are given in the following table.

TABLE 110

CANADIAN COMMERCIAL FRUIT PRODUCTION AND VALUES,

1935-1939, 1946 and 1947

(thousands of units)

Product	Unit	Average 1935-1939		1946		1947	
		Quantity	Value in thousands of dollars	Quantity	Value in thousands of dollars	Quantity	Value in thousands of dollars
Apples	bushel	14,560	10,978	19,282	27,196	15,619	22,335
Pears	bushel	569	701	951	2,278	966	2,444
Plums, prunes	bushel	264	318	811	1,755	723	1,634
Peaches	bushel	1,023	1,473	2,145	5,356	1,681	4,572
Apricots	bushel	50	104	147	446	116	407
Cherries	bushel	210	556	337	2,113	299	2,144
Strawberries	quart	23,493	2,094	17,412	4,498	25,659	5,388
Raspberries	quart	9,157	953	13,240	3,364	18,212	4,917
Grapes	pound	42,818	793	67,321	3,160	73,803	3,783
Loganberries	pound	1,872	100	1,637	222	1,413	198
Total	—	—	18,070	—	50,388	—	47,822

Source: Dominion Bureau of Statistics, Ottawa.

Because specialized areas are less important for vegetables, their commercial output is more widespread than in the case of fruit. For vegetables that are marketed in a fresh form, particularly where the product is highly perishable, accessibility to a large urban market is important and many growers locate near such markets. On the other hand, vegetables which are to be processed will be produced in the most favourable growing areas and processing plants will locate nearby. Potatoes are easily the most important of the vegetables and farm income received from their sale is roughly equal to that received from the sale of all other vegetables. They are particularly important in Prince Edward Island and New Brunswick, and farmers in these two provinces receive 25 per cent or more of their cash income from the sale of potatoes. Much of this production is sold in central Canada and in export markets.

For all other vegetables, Ontario, Quebec and British Columbia produce over 90 per cent of our commercial crop, with Ontario contributing about 60 per cent of the total. Canada's output of the more important of the vegetables for two recent years is given in the following table.

TABLE 111

PRODUCTION OF VEGETABLES, CANADA, 1946 and 1947

(thousands of pounds)

Kind	1946	1947
Beans	40,914	37,554
Beets	50,114	42,782
Cabbage	151,037	100,093
Carrots	125,359	114,866
Cauliflower	29,711	23,795
Celery	46,030	48,196
Corn	251,088	222,006
Lettuce	44,829	48,406
Onions	140,031	141,608
Peas	132,246	94,089
Spinach	15,846	16,602
Tomatoes	800,736	559,446
Total	1,827,941	1,449,443

Source: Dominion Bureau of Statistics, Ottawa.

IMPORTS OF FRUITS AND VEGETABLES

Imports of fruits and vegetables make an important addition to Canada's supply of fresh foods. Imports provide fresh fruits such as oranges, grapefruit and bananas, or dried fruits such as raisins, dates and figs which are not produced in Canada. Some of the fruits and vegetables imported are of the same type as Canada produces, but they can be obtained during periods when fresh Canadian supplies are not on the market. In the winter months, imports of tomatoes, lettuce, celery, carrots and cabbages supplement Canadian supplies. Some measure of the over-all importance of these imports, is indicated by the fact that in 1946, our total imports of fruits and vegetables amounted to \$122.7 million, the equivalent of 88 per cent of the total value of fruits and vegetables marketed by Canadian farmers. Of this total over 70 per cent came from the United States.

TABLE 112

IMPORTS OF SELECTED FRUITS AND VEGETABLES,
1938-1939, 1946 and 1947

(thousands of units)

Product	Unit	Average 1938-1939	1946	1947
Bananas	stems	3,084	5,322	3,649
Oranges	cu. ft	6,692	11,499	10,654
Grapefruit	lbs.	—	142,277	124,169
Grapes	lbs.	—	—	54,955
Raisins	lbs.	—	—	64,312
Cabbage	lbs.	19,561	43,197	34,481
Carrots	lbs.	20,460	53,362	49,724
Onions	lbs.	21,644	27,386	24,991
Celery	lbs.	22,008	41,753	33,090
Lettuce	lbs.	40,436	66,919	60,572
Tomatoes	lbs.	47,400	88,558	80,090

Source: Evidence, Special Committee on Prices, pp. 5800-01.

Though restricted by the Canadian tariff, imports of fruits and vegetables, particularly from the United States, provide keen competition for Canadian growers. American production starts early in the year in the southern states. As the season advances crops mature in areas successively further north, with the Canadian product being the last to appear on the market. Canadian growers are protected from the full effects of this competition by a year-round ad valorem tariff of 10 per cent on most items. In addition special protection is provided during the period when the Canadian crop is being marketed in the form of somewhat higher specific duties which supplement the above tariff at that time. During the early thirties tariff rates were much higher than this, but these have been gradually reduced by negotiation.

TOTAL SUPPLY AVAILABLE TO CANADIANS

The total supply of fruits and vegetables consumed by Canadians consists of domestic production, plus imported supplies less the amounts exported. An estimate of this for the year 1944, is given in the following table. In these totals an estimate is included for the output of individuals who grow fruits and vegetables for their own use, as well as for the production of commercial growers. These data show an annual per capita supply of 214 pounds of potatoes, 47 pounds of leafy, green and yellow vegetables, 109 pounds of tomatoes and citrus fruits (in fresh fruit equivalent) and 92 pounds of other fruits.

TABLE 113
FRUITS AND VEGETABLES AVAILABLE FOR CIVILIAN CONSUMPTION, 1944
(thousands of pounds)

Product	Production	Imports	Exports	Net Annual Use	Per Capita (Annual) Civilian Use
Tomatoes and Citrus Fruit					
Tomatoes, fresh	907,652	56,559	—	256,355	22.8
Tomatoes, canned	93,535	—	646	80,549	7.2
Pulp, paste, puree	39,032	—	23	16,562	1.5
Fresh citrus	—	563,464	—	533,425	47.4
Canned citrus	—	39,237	—	37,977	3.4
Total, fresh equivalent					109.47
Fruit, Other than Citrus					
Other fruits, fresh	1,028,398	246,708	148,021	584,844	51.9
Other fruits, canned	63,952	202	1,640	45,952	4.2
Other fruit juice, canned	11,606	—	—	6,468	.6
Other fruit, dry	12,500	97,930	4,179	96,428	8.6
Frozen fruit	2,939	—	—	3,023	.3
Total, fresh equivalent					92.0
Leafy, Green and Yellow Vegetables					
Cabbage and Spinach	226,400	38,983	—	154,665	13.7
Lettuce	39,112	38,081	—	59,472	5.3
Carrots	173,176	32,161	—	143,467	12.7
Legumes (peas and beans)	144,443	6,041	—	38,432	3.4
Canned (net contents)					
Spinach	1,317	—	—	1,021	.09
Carrots	2,107	—	—	501	.04
Legumes	142,620	80	729	132,348	11.75
Total, fresh equivalent					46.98
Potatoes					
Potatoes, white	4,940,900	19,536	396,350	2,410,937	214.1
Potatoes, sweet	—	7,296	—	6,931	.6
Total potatoes					214.7
Other vegetables					
Other, fresh	827,939	67,463	167,953	567,091	50.4
Other, canned	77,086	30	3,299	60,770	5.4
Total, fresh equivalent					55.8

Source: A Report on Nutrition and the Production and Distribution of Food, Appendix C, Department of National Health and Welfare, Ottawa, 1946.

THE MARKETING OF FRESH FRUITS AND VEGETABLES

The marketing of fruits and vegetables in Canada is characterized by a great variety of methods. In general, shippers, wholesalers and retailers each play an important part, but in many instances one or more of these stages may be omitted. Thus, in small cities and towns farmers and market gardeners sell a substantial amount of their produce directly to the consumer. In the larger cities the farmer is more likely to sell to retailers or wholesalers. One witness estimated that 90 per cent of the vegetables grown in the vicinity of Montreal, were sold directly to the retailer by the grower.¹ In the Toronto market many growers send their fruits and vegetables to wholesalers who sell their products on a commission basis.

¹Evidence, Special Committee on Prices, p. 3205.

Where growing areas produce larger quantities than can be consumed in their immediate neighbourhood, some agency is required to collect the crop of the grower and move it to the market. This is especially true of potatoes and apples in the Maritimes and of apples and other fruits in British Columbia. In such instances, shipping firms collect the fruits or vegetables from the grower, pack the products in a standard fashion, grade them and ship to consuming areas. In contrast, where produce is sold in nearby markets it may move to market in a great variety of ways. Many growers have their own trucks and take their produce to market several times a week. Others sell it from the farm to a truck-dealer or send it by truck, rail freight or express to a wholesaler who purchases it outright or sells it on consignment. This type of movement is on a smaller scale and involves less grading and standardized packaging than is true of the shippers described above.

While wholesalers perform a variety of functions their main purpose is to provide warehousing facilities for the products of many growers and as a convenient purchase location for retailers. Wholesalers may buy and sell for their own account, or may act as brokers or consignment agents. In addition wholesalers in the fruit and vegetable trade frequently serve as importers. Available data indicate that there were over 400 wholesale firms and over 180 wholesale shippers operating in Canada in September 1948.¹

Judging from the number of firms, there appears to be a very competitive situation in the wholesaling of fruits and vegetables in eastern Canada. The large number of available markets for the product, the products' inherent perishability and the ease with which the wholesaler can be disregarded, make it difficult for any degree of monopoly to develop. This is not quite so true of western Canada. The Prairies in particular are more dependent on fruits and vegetables shipped in from other areas and a large proportion of their wholesalers belong to chain organizations. In fact three chains operating throughout western Canada control nearly one-half of the wholesale establishments. In addition two of the three principal chain wholesalers have affiliated retail outlets.² Some fruit and vegetable processing is controlled by these same groups.

Chain stores operate on a cash and carry self-service basis and a substantial portion of their sales result from consumer impulses within the store. In such a system of merchandising the fruit and vegetable display is often a trade magnet designed to attract customers into the store. In their purchases the chains have gained a reputation of paying growers well and of carrying on educational work leading to an improvement in the quality of fruits and vegetables produced in areas adjacent to chain selling outlets. The extent to which chain stores undersell independent stores may reflect the efficiency of their combined shipping, wholesaling and retailing operations. However, chains use regular wholesalers to some extent and sometimes make their wholesale departments available to other wholesalers and retailers.

¹ Dominion Department of Agriculture, Fruit and Vegetable Division.

² Western Grocers with Shop Easy and Red and White Stores; Macdonald's Consolidated with Safeway Stores.

THE PROCESSING OF FRUITS AND VEGETABLES

Fruits and vegetables are marketed in processed form as well as in the fresh state. Processing may consist of canning, fast-freezing, the production of soups, fruit and vegetable juices, infant foods and pickles, marmalades, jams and jellies. The development of this field has greatly expanded the market for Canadian producers. At the same time, it has provided the consumer with a year-round supply of foods which, though not in general as attractive as in their fresh form, are still wholesome and nutritious. This has been of significance in Canada, where the short summer season severely limits the time during which fresh produce of Canadian origin is available. In 1946, there were 513 fruit and vegetable processing establishments in Canada, with a gross value of production amounting to \$136 million. Of these about two-fifths were located in Ontario and they produced over 60 per cent of the industry's total output. Quebec and British Columbia are next in importance, each of them producing about 15 per cent of the Canadian total for 1946.

Among the processed fruits, apples led both in quantity and value. Nearly 200 million pounds were processed during 1946, and for them farmers were paid over \$3,000,000. Peaches were second in terms of value followed in order by strawberries, raspberries and cherries. Of vegetables, tomatoes are by far the most important single crop used by the canning industry. The industry's total purchases of tomatoes in 1946, amounted to about \$7,700,000. Green peas were next in importance, followed by green or wax beans and corn. Though accurate statistics are lacking, available data suggest that more than one-half of the commercial production of tomatoes, peas, corn and beans are factory processed.

In some degree the canning or processing industry competes with the fresh market for the farmers' produce. Competition is particularly keen in the case of fruits, and prices paid by the canners for fruits will not differ substantially from those paid in the fresh market. However, for vegetables, competition between these two markets is somewhat more restricted. The large vegetable canners customarily contract with farmers to produce specifically for them. The contract requires the planting of varieties suitable for the cannery and provides for some supervision by the cannery over the production and harvesting of the crop. While vegetable production intended for the canner may occasionally find its way to the fresh market, this is unusual. Canneries are generally located some distance from the urban market so that the transport costs place a barrier on this movement. On the other hand, vegetables produced specifically for the fresh market are more often from farms located close to the larger cities and their product may not be entirely suited to the canners' needs. Because of their location their costs are also somewhat higher so that even a relatively attractive price for vegetables at the cannery will not always interest the grower for the fresh market. There is of course, some relation between the two markets and prices paid by the canner will usually place a floor under prices on the fresh market.

In both Ontario and British Columbia, provincial marketing Acts provide a framework for negotiation between canners and farmers. Minimum prices are established by negotiation between representatives of the growers and canners and no processor may go below these prices. In this way, a floor or guaranteed support price is provided for fruits and vegetables.

The Canadian fruit and vegetable processing industry consists of a few large firms and many smaller firms. In 1947, seven large firms accounted for over 40 per cent of the packs of fruits and vegetables. By advertising their particular brands on a national basis these larger firms have been able to build up a special market which enables them to charge a slightly higher price for their products. Competition from the many small firms in the industry limits the degree to which these firms can increase prices on their own brands.

THE DEMAND FOR FRUITS AND VEGETABLES

The average Canadian has increased his consumption of fruits and vegetables over the past 10 years. This is particularly true for tomatoes and citrus fruits, somewhat less so for leafy green and yellow vegetables. Consumption of potatoes on the other hand has shown little, if any, change. Some of these changes are indicated in the following table.

TABLE 114

ESTIMATED AVERAGE SUPPLIES OF CERTAIN FOODS USED BY CIVILIANS IN CANADA, 1935-1945

(pounds per person per year, fresh equivalent)

Year	Tomatoes and Citrus Fruits	Other Fruits	Leafy-green and Yellow Vegetables	Other Vegetables	Potatoes
Average 1935-1939	61	86	45	34	200
1940	68	88	42	31	191
1941	77	95	44	27	201
1942	83	70	62	41	199
1943	77	64	40	26	211
1944	109	91	47	56	200
1945	95	77	52	52	190

Source: Appendix II. Canadian Food and Nutrition Statistics, 1935 to 1945, prepared by Nutrition Division Department of National Health and Welfare, 1946.

While in substantial part this increase reflects the recovery of incomes from the depression levels obtaining throughout the thirties, it also seems to be part of a long run increase in the demand for fruits and vegetables. This is associated on one side with a growing realization on the part of the consumer of the food value, especially in the protective sense, of these foods, a fact that has been given increasing

emphasis by health experts in recent years. On the other side it is related to the improvements in the handling of fruits and vegetables by means of better storage and transportation facilities that have occurred over the past 20 years or more. Finally, gradual growth in income levels have made it possible for Canadians to purchase a much wider variety of fruits and vegetables.

During the war demand was increased by a program of vegetable dehydration for the United Kingdom. Cabbages, carrots, potatoes and other root crops were the major vegetables treated in this way. Of cabbages and carrots from 10 to 35 per cent of the Canadian crops was dehydrated and a substantial acreage was planted under contract for this outlet. The Dominion government assisted in the construction of the necessary plants which operated in every province except Saskatchewan. In addition a substantial volume of Nova Scotia apples was evaporated or otherwise processed with the assistance of government subsidies and shipped to the United Kingdom. Most of these exports ceased shortly after the end of the war though the processing of Nova Scotia apples has continued for other reasons.

The export market also supplements the domestic demand for a number of fresh fruits and vegetables. Of these the most important are potatoes, turnips, carrots, apples and blueberries. The export of other fresh fruits and vegetables to our nearest market has been limited by the United States' tariff. While some further reductions in tariff rates occurred under the Geneva Agreements it is still too soon to determine whether this will allow a greater entry of Canadian produce. On potatoes, which have always had a substantial export market, additional restrictions on Canadian exports were imposed during the current year because of a conflict with price support programs in the United States. One of our most important pre-war markets for apples was the United Kingdom, but because of foreign exchange difficulties, this market is now largely closed and Canadian growers have been forced to turn elsewhere. This has created severe difficulties, particularly for apple growers in Nova Scotia, whose product is not well suited to the American market. In over-all terms our exports of fruits and vegetables are much smaller than our imports. In 1946 they amounted to less than one-quarter of the value of our imports of fruits and vegetables.

THE DETERMINATION OF PRICES FOR FRUITS AND VEGETABLES

For many fresh fruits and vegetables short run variations in demand may have a greater effect on the price in many market areas than the supply available. Because of the perishability of the product, prices tend to be fixed at a level which will clear the produce on the market within a short period of time. This often leads to sharp fluctuations in price from day to day and from week to week. But excessively high or low prices in any one market are unlikely to prevail for any length of time. High prices will attract an increased supply from other areas whereas low prices will cause a diversion of supplies to other markets. Because of

the availability of large American supplies this analysis applies to the Canadian market as a whole. Over-all Canadian demand is small relative to the total American supply, so that as long as imported supplies are freely available Canadian prices cannot rise much above levels prevailing in the United States market. To some extent the availability of the American market will also keep Canadian prices from declining, although for most of our produce the higher United States tariff makes this type of adjustment less effective.

While an inflow of American supplies may occur quite rapidly, adjustments in domestic supplies require at least a year or longer. In any one year, of course, the size of the Canadian crop is highly dependent on favourable weather during the growing season. But given a good year, the supply of most vegetables and many small fruits can be increased substantially within a year. If prices are unfavourable, the acreage planted can be sharply reduced in a similar period of time. For the tree fruits, adjustments in supplies requires a much longer period of time. New fruit trees take a number of years to reach the bearing stage. Moreover once trees are in production, they continue to bear fruit for many years regardless of unfavourable prices. For example, in Nova Scotia apple production has continued in large volume despite the loss of the important United Kingdom market. Adjustment to changed market conditions is being aided here by a government program to encourage a reduction in the number of trees and the grafting to the remaining trees of varieties of apples more suited to the United States market.

The factors determining the prices of most Canadian fruits and vegetables are the size of the domestic crop, the level of prices prevailing in the American market, as well as the volume of domestic demand. Although imports are restricted by higher rates of duty during the period when the Canadian crop is being marketed, they still exert some effect on prices. For many crops a substantial part of the fruit or vegetable in question is purchased by the canner and as we have pointed out above, this demand competes with the fresh market for the growers' produce. But the canner must determine the price he can afford to pay in the light of prospective consumer demands over the entire succeeding year. During this period of time his product will have to be sold in competition with imported fruits and vegetables, both fresh and canned. For this reason the current prices in the United States market will influence the price the canner is willing to pay and this in time will have some effect on the price of fresh produce.

Within the limits set by the competition of American supplies and the availability of the American market for the export of some products, the demand and supply situation in the domestic market will determine the prices of fruits and vegetables. When industrial employment and incomes are high the demand for fruits and vegetables will be good and prices will be favourable. When employment and incomes in urban areas fall, the reverse will be true. With a given level of demand a large

crop is likely to bring lower prices while a small crop will yield higher prices. The cost of harvesting and marketing the crop will also affect prices. These may be fairly high for crops such as strawberries where labour costs for picking are high and quite low for others such as potatoes which are more adapted to mechanical harvesting.

To a marked extent the larger cities such as Toronto, Montreal, Winnipeg and Vancouver, have tended to become focal points for the determination of prices in the surrounding area. In the words of one witness before the Special Committee: "The price setting market for Ontario is the Toronto wholesale market. Toronto and Montreal set the prices for all eastern Canada".¹ In most of these cities there are a large number of buyers and sellers and, in addition, the cities are centres for the distribution of imported produce. Prices in adjacent markets will be set with reference to the prices reached in these larger cities since local supplies can easily be diverted from one market to another.

The evidence given before the Special Committee on Prices indicates that most wholesalers feel the prices set in these markets are highly competitive. One witness expressed it as follows:

"No individual I would think sets the market price. I think the market price is the result of a number of counter-balancing factors. We do not arrive at the market price until we arrive at that point where supply and demand are roughly equalized or where there is a steady movement of merchandise. If merchandise moves too slowly the price is too high. If it moves too rapidly the price is too low and when you reach that point where there is, let us say, a steady movement, or just sufficient buyers to take the produce from the market, or conversely, just sufficient produce to satisfy demand, we have the market price."²

In such a situation most of the witnesses felt that there was little that the individual grower, wholesaler or retailer could do either to keep prices below the market level at one time or to raise them above this level at another.

PRICES AND SUPPLIES IN THE PERIOD 1939-1948

During the war period all agricultural prices increased sharply, the index of farm prices advancing from 100 in 1935-1939 to 181 in 1945. In the case of fresh fruits and vegetables farm prices increased rapidly from 1939 to 1943, but remained fairly constant from 1943 until the end of the war. As the brief which the Canadian Federation of Agriculture presented to us emphasized, the rise in farm prices which occurred during the early years of the war was required to overcome the depressed conditions prevailing in agriculture during the thirties.³ Thus it may be assumed that the price increases in fruits and vegetables during the period 1939 to 1943 were not excessive. Table 115 shows the indexes of farm prices for all agricultural products together with the indexes applicable to fruits and vegetables.

¹Evidence, Special Committee on Prices, p. 2770.

²Ibid., p. 2867.

³Evidence, Royal Commission on Prices, p. 2179.

TABLE 115

INDEX NUMBERS OF FARM PRICES OF AGRICULTURAL PRODUCTS AND OF FRUITS AND VEGETABLES, 1940-1948

(1935-1939 = 100)

Number of Items	Agricultural Products	Fresh Market Fruits	Fresh Market Vegetables	Fruits for Processing		Vegetables for Processing	
					Subsidy Portion		Subsidy Portion
1935-1939	100	100	100	100 ^a		100 ^a	
1940	97	98	100	100		100	
1941	110	124	136	138		113	
1942	133	151	155	154		132	(15)
1943	158	233	209	248	(74)	151	(28)
1944	172	210	187	242	(64)	159	(35)
1945	181	246	194	265	(68)	165	(35)
1946	193	234	180	254		181	
1947 ^b	204	236	175	259		195	
1948	242 ^c					218	

a) 1937-1939 base.

b) Estimated, except agricultural products index reported.

c) Jan.-Sept.

Source: Dominion Bureau of Statistics, Ottawa.

Governmental Price and Supply Controls

The general price ceiling regulations of December, 1941 applied only to processed fruits and vegetables. Fresh fruits and vegetables, along with certain other goods which have high seasonal price variations, were exempted from the original controls. However, to avoid sharp price increases, the 1941 crops of potatoes and onions were put under ceilings. The general principle in establishing ceilings on fresh fruits and vegetables was not to do so until advancing prices were imminent.

Despite the administrative difficulties involved because of standards, seasonal price variations, regional price differentials, and perishability, it was found necessary to bring apples, grapes, peaches, pears, plums, carrots, cabbage, parsnips and turnips under specific ceiling controls in 1943. Strawberries, raspberries, cherries, apricots were controlled in 1944. Price ceilings on some domestic crops applied only during their marketing seasons. Of the imported fruits, oranges were controlled first in December 1942, at which time subsidy payments were also initiated.

In 1942 and in following years subsidies were paid to vegetable canners to permit them to pay higher prices to growers to compensate for increased costs than would otherwise have been possible under the ceiling. Similar subsidies went into effect on canned and processed fruits in 1943. On the whole, subsidies were employed to a very limited extent on fresh fruits and vegetables, and then mainly on imported items. In this connection it should be noted that generally import duties and other taxes were not imposed thus permitting the sale of fresh fruits and vegetables at prices lower than otherwise would have prevailed. The amount spent on subsidies for both fresh and processed fruits and vegetables from the beginning of the Wartime Prices and Trade Board program until December 31, 1946, was \$12,200,486.

As in almost all fields it was necessary to accompany price controls on fresh fruits and vegetables by complementary supply controls. These were most comprehensive in the case of imported fruits and vegetables, and especially on those subject to subsidy. The fruit and vegetable industry was also subject to the operation of a policy of equitable distribution set up by the Wartime Prices and Trade Board which specified distribution on a basic period pattern. This policy which has been referred to in more detail elsewhere,¹ helped to ensure that all areas got a fair share of the product.

Price ceiling regulations continued for fresh vegetables through 1946, general decontrol being effected on January 13, 1947. Fresh fruits were partially decontrolled in July, 1946, and entirely decontrolled in January, 1947. Processed fruits and vegetables were released from controls during the late summer and autumn of 1946. The government's general policy of releasing control on commodities as supply became more favorable was followed in this industry. All domestic fruit crops, and nearly all vegetable crops were larger in 1946 than in 1945, with

¹See Chapter 3, Vol. II, Price Control and Rationing.

the result that there was little increase in the prices of these commodities following decontrol.

On November 17, 1947, the Dominion government took restrictive measures against imports of fruits and vegetables, as part of its program to alleviate the foreign exchange difficulties which Canada had encountered. Imports of all United States fruits and vegetables with the exception of citrus fruits, apples, potatoes and onions were prohibited. These latter items were restricted in volume by import quotas. For example, importers were limited in their imports of citrus fruits to 50 per cent of the value imported during the year ended on June 30, 1947. In February and March, 1948, there was a certain easing of these controls, and some further relaxation occurred in October, 1948.

Due to the sharp increases in prices which occurred following the introduction of import controls, the government re-imposed ceiling prices on the principal canned fruits and vegetables in November, 1947. Further ceilings were imposed in the period January to May, 1948, on grapes, cabbage, citrus fruits, carrots and new potatoes.

Prices and Financial Returns After Decontrol

As we have just indicated, during the winter of 1946-1947 and throughout most of 1947, prices of fruits and vegetables remained fairly constant, approximately at the levels prevailing under price control. The size of the 1946 crop and the considerable volume of imports were sufficient to prevent any further rise in price at that time. It was only after the import control program was introduced in November, 1947, that prices began to rise sharply.

The severe restrictions on imports of fruits and vegetables together with a reduction in the size of the domestic crop in 1946, meant a considerably diminished supply of fruits and vegetables for Canadians. In these circumstances it was almost inevitable that some increase in prices would occur.

The question arises, who secured the gains from such price increases? On the basis of the evidence before the Special Committee, it appears that the gains on domestic produce were divided largely between grower and wholesaler, depending on who held title to the product at the time the emergency controls came into effect. Mr. M. M. Robinson, Secretary-Treasurer, Ontario Fruit and Vegetable Growers' Association, stated that the bulk of Ontario grown celery was in the hands of wholesalers but that a large proportion of Ontario potatoes, turnips, carrots, cabbage and parsnips was in the hands of growers.

But the wholesalers' gains were not confined to the stock they held on November 17. The evidence presented to the Special Committee by representatives of the wholesale trade shows that there was a considerable widening of mark-ups and margins on fruits and vegetables during the winter of 1947-1948. These higher than normal mark-ups applied particularly to imported fruits and vegetables and resulted in sharp increases in prices to consumers.

Several representatives of the wholesale trade contended that the higher mark-ups were necessary to offset the reduction in the volume of supplies caused by the import restrictions. However, the evidence indicates that the increased margins "were more than sufficient to compensate for losses in volume, with the result that higher than normal profits were earned during the winter months of 1947 and 1948".¹ These higher mark-ups and margins on imported fruits and vegetables yielding larger total profits meant higher prices to the consumer. A specific illustration can be given in the case of oranges. The evidence indicated that the margin between the laid down cost of California oranges (size 288) to wholesalers and the retail selling price increased from 12.4 cents per dozen at the beginning of November, 1947, to 18.5 cents in December. The margin remained close to this latter figure until February, 1948, when price ceilings were re-imposed on citrus fruits. After the re-imposition of the ceilings the margin fell to 12.0 cents at the beginning of March and to 10.4 cents at the beginning of April.¹

Thus imported fruits and vegetables during the period November, 1947, to February, 1948, provide a clear-cut illustration of unduly enhanced prices to consumers through increased mark-ups and margins in the distributive trades, in a restricted supply situation. That these operations resulted in greatly increased profits to distributors in this trade is clear from the following data. A comparison of the net operating profit (before taxes on income) earned by six fruit and vegetable wholesalers, three operating in Toronto and one each in Winnipeg, Vancouver and Sydney, Nova Scotia, for the months of November to March shows an increase from \$80,904 for 1946-1947 to \$165,539 for 1947-1948.¹

No evidence was presented before the Special Committee on Prices showing that chain wholesalers or chain retailers took any special advantage of their size, or the fact of the integration of their operations. In fact, the profits taken by the fruit and vegetable procurement agency of the only retail chain organization examined by the Special Committee increased from 1939 to 1947 much less than was the case for other wholesalers. Furthermore, the evidence shows that in the period following the imposition of import restrictions the retail stores of this organization tended to give the consumer the benefit of any undue gains this organization might have been in a position to keep for themselves.² Thus their profit in the period December, 1947, through March, 1948, showed a general tendency to decline below the levels of the same months one year previous.

Prices continued for most fresh fruits and vegetables until the summer of 1948, when the domestic crops began to be marketed. Canadian production was larger in 1948 than it had been in 1947, because of more favorable climatic conditions and the effect which high prices had in inducing growers to increase the acreage devoted to fruits and vegetables. This increase in Canadian supply, together with relaxations of import controls may be expected to keep prices at a lower level throughout the winter of 1948-1949.

¹Report to the House, Special Committee on Prices, pp. 3941-42.

²Evidence, Special Committee on Prices, p. 3291.

SUMMARY AND CONCLUSIONS

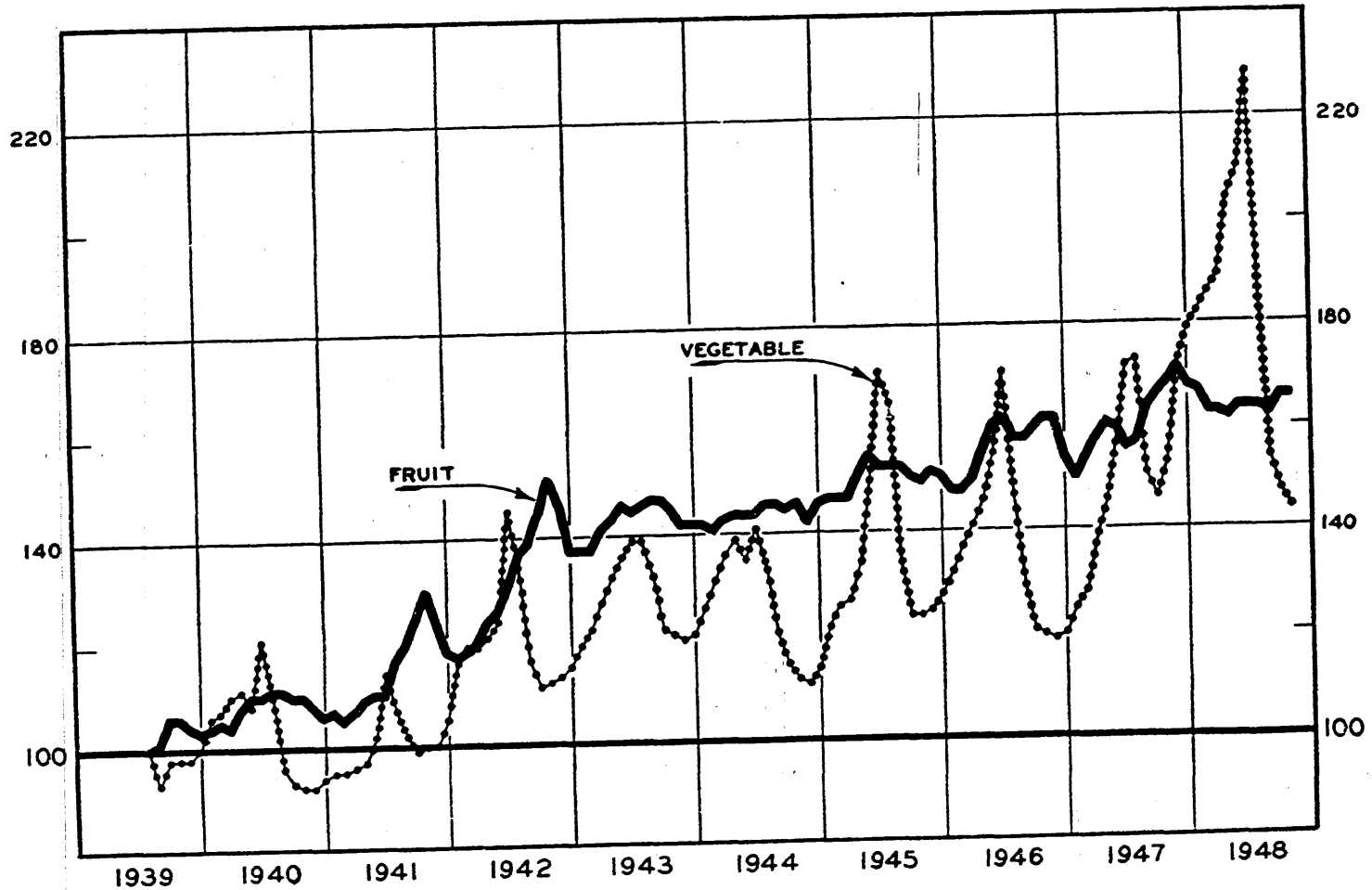
Prices of fruits and vegetables rose rapidly from depressed conditions in 1939 until 1943. From 1943 until the end of the war, the prices of these commodities remained fairly constant under price control regulations. In 1946 and early 1947, as the supply of these products reached adequate levels, the government lifted price control regulations in keeping with the general decontrol program. This had very little effect on prices. After November, 1947, however, fresh fruit and vegetable prices moved rapidly upward until the summer of 1948, when a general decline occurred.

The Special Committee on Prices confined its investigation mainly to the period of rising prices in the winter of 1947-1948. From an examination of the evidence presented before the Committee, we have concluded that the price increases occurred by reason of the limitations on supplies resulting from the government's emergency exchange conservation program. The shortage was more acute because Canada's 1947 crop was smaller. No evidence was found of any agreements between members of the industry to raise prices during this period. Consumers reacted to the restriction in supply by bidding up the prices of available fruits and vegetables. There is evidence, however, that some wholesalers in the industry contributed to the rise in prices, by increasing their gross margins in order to compensate, so they said, for the decreased volume of their sales. It seems clear from an examination of the profit position of the wholesalers who appeared before the Committee, that these increases in margins were not altogether necessary to maintain profits.

The government's action in relaxing some of the import controls and re-imposing certain ceiling prices during the winter of 1947-1948 had the effect of stabilizing prices. Prices in this industry did not fall substantially until the summer of 1948 when Canadian production came onto the market.

FRUIT AND VEGETABLE RETAIL PRICE INDEX

(AUGUST 1939 = 100)



Source: Dominion Bureau of Statistics, Ottawa.