## 1920. NEW ZEALAND.

# WOOLLEN-MILLING COMPANIES OF THE DOMINION

(REPORT OF THE BOARD OF TRADE RELATIVE TO THE OPERATIONS OF).

Laid on the Table of the House of Representatives by Leave.

5th August, 1920.

Memorandum for the Hon. E. P. Lee, President, Board of Trade, Wellington.
For some months past the Board of Trade has been carrying out an investigation relative to the operations of the woollen-milling companies of the Dominion.

The intention of the Board when undertaking this investigation was to cover the whole field of transactions from the raw wool to the point of sale to the consumer. It has been found necessary to make the investigation in several sections, and this report deals with the first of these sections—the process of manufacture of woollen goods in New Zealand and the disposal of such goods by the milling companies. Reports which will be submitted to you at a later date will present the results of the Board's inquiries into the businesses of warehousemen and retail traders.

#### STATISTICAL AND GENERAL.

There are at the present time ten woollen-mills in active operation in New Zealand. Four of the companies operating these mills are private registered companies, the remaining six being controlled by public companies. The names of the companies in question are as follows:—

The Onehunga Woollen-mills (Limited).

The Napier Woollen-mills (Limited) (formerly the Napier Woollen Company (Limited)).

The Wellington Woollen-manufacturing Company (Limited). The Kaiapoi Woollen-manufacturing Company (Limited).

Lane, Walker, Rudkin (Limited).

The South Canterbury Woollen-manufacturing Company (Limited). The Oamaru Woollen-factory Company (Limited).

Ross and Glendining (Limited).

The Bruce Woollen-manufacturing Company (Limited).

The Mosgiel Woollen-factory Company (Limited).

Three of the mills were established during the years 1870-79, five between 1880 and 1889, one during the period 1890-99, and one during the period 1900-4. The erection of several new mills in various parts of the country has recently been proposed. It is well recognized that prior to the war period the pressure of overseas competition was such that woollen-milling in New Zealand was by no means a lucrative business. Several of the companies carrying on this business were rapidly reaching a position of financial instability, while only one or two of the companies were earning profits which could be regarded as reasonably sufficient in a manufacturing industry. The higher profits earned in recent years have, to some extent at least, been secured as a result of the installation of new and up-to-date machinery and the adoption of improved methods of

It must be understood that while each of the companies mentioned above is actively engaged in the manufacture of woollen goods, several of the leading firms are also soft-goods warehousemen, selling both colonial and imported clothing and clothing-materials; while some of the firms are also engaged in the manufacture of suits, costumes, shirts, boots, hats, &c. The allocation of capital, expenses, and profits as between the various departments of these companies is a matter which can be carried out only on the basis of intelligent estimates. The records of the various companies do not provide for the ascertainment of profits otherwise than for the businesses as a whole, but there is no evidence to show that the gross profits arising out of imported goods is less than the gross profit taken on locally manufactured goods. For this reason the particulars given in the major portion of this report cover operations which are allied to but which are not necessarily part of the business of woollen-manufacturing.

From information collected by the Census and Statistics Office it has been found that the number of workers employed by the woollen-mills of New Zealand during the census years have been as follows: 1895-96, 1,416; 1900-1, 1,693; 1905-6, 1,549; 1910-11, 1,410; 1915-16,

1,897; 1918–19, 1,878.

Although the number of workers employed in the census years 1915-16 and 1918-19 were higher than in any previous year, there is conclusive evidence that at the present time the mills are working decidedly short-handed, and as a result many of the machines are idle. In this connection it should be pointed out that, although the number of mills has not been increased during recent years, the capacity for production has been constantly increased as a result of the installation of new plant and machinery. For this reason the number of workers employed from

time to time does not reveal the true position as to the demand for and supply of labour in the mills. To some extent, however, the demand for labour in the mills has been eased by the introduction of automatic and labour-saving machinery.

The following extract from the Official Year-book (1919, page 660) gives in a condensed

form information relative to important features of the industry during the period 1905-15:—
"Woollen-mills: There were ten woollen-mills in operation in the Dominion in 1915-16, employing 1,897 persons-751 males and 1,146 females. These factories therefore provide more occupation for women and girls than for the male sex.

"The value of manufactures for 1915 is nearly double that for 1910. The increase in value, however, was not accompanied by a correspondingly great increase in quantity, being mainly

due to the higher prices ruling."

			1905-6.	1910–11.	1915–16.	1918–19.
Number of—						
Works			10	10	10	10
Hands employed			1,549	1,410	1,897	1,878
Amount of—				,	'	-,
Wages paid		£	105,036	137,161	187,736	233,170
Horse-power		h.p.	1,945	2,641	3,080	3,452
Approximate value of—		1	,			-,
Land		£	9,003	7,694	10,549)	010 000
Buildings		£	110,297	100,941	161,205	210,980
Machinery and plant	٠	£	188,459	180,454	256,230	245,571
Scoured wool used—			,		,	
Quantity		lb.	3,835,064	3,092,777	4,096,048	4,363,956
Value		£	167,291	214,387	354,688	474,922
Output			ĺ			,
Tweed		Yards	1,300,471	1,160,686	1,256,847	1,675,113
Flannel		,,	1,368,268	1,140,794	1,353,088	853,247
Blankets		Pairs	59,572	67,201	111,452	82,383
Rugs and shawls	N	umber	23,780	49,073	25,467	25,171
Yarn		lb.	259,067	260,397	183,125	271,425
Total value		£	397,348	377,713	717,638	956,434

Figures compiled from census returns for the year 1918-19 have been added to the above table, and these more recent particulars indicate the advance in output which has taken place in recent years. While the change in fashion and texture of goods produced makes it impossible to compare the annual output on a basis of the yardage of tweeds and flannels, numbers of blankets, rugs, &c., the weight of wool used gives evidence of an increasing production. During recent years fine wools have represented an increased proportion of the wool used in manufacture. Since the use of coarse wool gives a greater yardage of tweed, &c., it would be fallacious to accept yardage as a measure of production.

## PRODUCTION COSTS.

During the past few months the Board of Trade has made full inquiries into the manufacturing and trading operations of the woollen-manufacturing companies during the years 1914, 1918,

Owing to a recent change in ownership, accounts for one of the companies have not been available for consideration by the Board's accountants. The only particulars which can be gathered from this firm are those given in the published annual accounts, the detailed financial records of the company having been destroyed. Generally, therefore, the statements given hereafter cover only nine of the ten companies doing business in New Zealand. Further than this, as has already been mentioned, the internal records of those companies which are doing business as warehousemen and clothing-manufacturers in addition to the business of woollen-manufacturing do not permit of the exclusion of warehousing and clothing departments from consideration.

In the first place, the New Zealand Woollen-manufacturers' Association submitted details of the mill costs of production for a number of leading lines of woollen goods, together with mill selling-prices for these goods. This information was made the subject of exhaustive inquiry by the advisory accountants of the Board of Trade. Each item of cost was inquired into, and the system of cost accounts employed in one of the leading mills of the Dominion was closely scrutinized in relation to the technical features of manufacture. The Board has in its possession information by which it can from time to time watch the development of the industry and the movement of costs and prices whenever it may be deemed necessary to do so.

The uniformity of results obtained by this mill clearly proves that the system of costing employed has been fully reliable, the desired trading result over the whole output being generally secured. It is not necessary to present in this report detailed particulars of the costing methods employed. The allocation of costs of materials, labour, and overhead charges has been carried out with full consideration of the practical facts, and certain results have been arrived at for each class of goods manufactured. In consideration of the fact that costs of production for different samples of goods have increased since 1914 by different amounts, it is not possible to give a concise statement as to the general increase in cost of manufacture. The increase, however, may be set down as approximately 70 per cent.

This may be explained in general terms by consideration of the following facts:-

Wool.—Wool constitutes in most samples approximately 50 per cent. of the mill cost, though this percentage varies from 35 to 70 according to the weight, class, and quality of wool in each case used. It is claimed by the woollen-manufacturers that prices of greasy wool have 3 H.—44.

increased since 1914 approximately as follows: Merino,  $10\frac{1}{2}$ d. to  $20\frac{1}{2}$ d. per pound = 95 per cent.; half-bred,  $10\frac{3}{4}$ d. to  $20\frac{1}{4}$ d. per pound = 88 per cent.; crossbred,  $7\frac{1}{3}$ d. to  $13\frac{4}{5}$ d. per pound = 88 per

It is well known that local mills are able to buy wool at valuations made under the Imperial Government requisition (plus 5d. per pound to cover valuation and brokers' charges), and that 

Ranges of Values per Pound, according to Quality. Description of Wool.

25 0001115 02011 01	11001				00 1	<b>wuan</b>	uy.
					d,		d.
Superior merino combings	š		 • • •	• • •	12	$\mathbf{to}$	$14\frac{1}{2}$
Medium to good mèrino			 		$9\frac{3}{4}$	,,	$11\frac{7}{2}$
Inferior merino			 		8 <u>‡</u>	,,	$9\bar{3}$
Superior half-bred			 		$12^{2}$	,,	$14^{2}$
Medium to good half-bred			 		$9\frac{3}{4}$	,,	12
Inferior half-bred			 • • •		9*	,,	10
Superior crossbred			 		$10\frac{1}{8}$	,,	12
Medium to good crossbred			 		9 -	,,	11
Inferior crossbred			 		$7\frac{3}{4}$	,,	9
Lincoln and Leicester			 		$8\frac{4}{3}$	,,	101
Lambs', good			 		$1\overline{1}^4$	,,	$13^2$
Lambs', medium			 		9	.,	103
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In view of these facts it might be thought that an error has been made in stating that woolprices have advanced during the war period by more than the above-mentioned 55 per cent. Figures supplied by the Department of Imperial Government Supplies indicate, however, that prices have in fact been increasing each year, and that prices for the 1918-19 season were considerably more than 55 per cent. higher than pre-war values.

The average values for the basic season 1913-14 are, of course, not known by the Department, but the average prices paid by local woollen-mills for the 1916-17, 1917-18, and 1918-19 seasons for wool (other than freezing companies' slipe wool) were: 1916-17, 13:88d.; 1917-18, 15:67d.; 1918-19, 16:38d.

Presuming that the average price in 1916-17 was, as agreed upon, 55 per cent. above the average for 1913-14, the average price as paid by local manufacturers was, for the 1918-19 season, 83 per cent. above the figure for 1913-14. Further than this, as already mentioned, during the war period the local mills have been required to pay, in order to cover brokers' and valuation charges, §d. per pound on all wool bought. This charge was previously borne by the vendor.

It may be contended that the higher average prices paid by the woollen-mills in recent years have been the result of their selection of better-class wools. While this is no doubt to some extent correct, the fact remains that to produce the class of woollen goods now being manufactured the mills must pay increased prices.

Generally, however, it can be shown that even quality for quality the price of New Zealand wool has advanced in recent years beyond the nominal values determined under the requisition agreement made in 1916 between the Imperial Government and the producers of this raw material.

The Department of Imperial Government Supplies has calculated the average prices for all greasy wool produced and valued in New Zealand for the seasons 1916–17, 1917–18, and 1918–19. These average prices are as follows: 1916–17 season, 14.74d. per pound; 1917–18 season, 14.95d. per pound; 1918-19 season, 15.25d. per pound.

If the 1916-17 prices were 55 per cent. above the pre-war prices, the 1918-19 prices for the

whole of New Zealand's production were 60 per cent. higher than before the war.

Unfortunately the figures for the 1919-20 season are not yet available, but it is anticipated that a still further increase will be revealed both in respect of prices of wool bought by local woollen-mills and prices for the whole production of the Dominion.

There is accordingly conclusive evidence to show that wool-prices have advanced in recent years notwithstanding the nominal fixation of prices under the Imperial Government requisition. The extent of this advance so far as the 1919-20 prices are concerned cannot be accurately deter-

mined, but may be accepted, quality for quality, at approximately 75 per cent.

Operatives' Wages.—Operatives' wages represent in the mill cost of most samples approximately 30 per cent., the figure varying from 14 to 46 according to the nature of the goods in question. In addition to operatives' wages there must be considered the salaries and wages of managers, foremen, &c. These salaries and "non-productive" wages (so-called) amount to approximately 5 per cent. of the cost of manufacture. The wages of adult males prior to the war were—for the majority of such workers in woollen-mills—1s. per hour. The rate for these workers is now 1s. 8d. per hour. Other adult male workers have received since 1914 an increase in wages from 1s. 1d. to 1s. 9d. per hour; 1s.  $1\frac{1}{2}$ d. to 1s. 9d.; 1s. 2d. to 1s. 9d.; and 1s. 3d. to 1s. 10d. The average percentage war increase in the wages of adult male workers has accordingly been approximately 65 per cent.

The wages of adult female workers have been increased from 6.87d, per hour in 1914 to 10.50d, per hour in 1920. This represents an increase of 52.84 per cent. Largely as a result of scarcity of labour the wages of junior female workers have been increased to a much greater

Although it is impossible accurately to determine over the mills as a whole the increase in labour costs in relation to output, the evidence available shows that this increase has been not less

than 60 per cent.

Dye Materials.—Prior to the war period dyes represented only a small proportion of the cost of production, and although the prices of these materials have advanced to an enormous extent. and the proportion of cost has generally been more than doubled, this proportion of the total cost now stands at approximately only 5 per cent. In the case of a number of samples of goods dyes represent an even smaller proportion of the total cost of production.

Other Materials.—The balance of the prime costs of production may be grouped under the

above heading.

These costs as a proportion of the total cost have generally shown little movement during the war period. Such commodities as oil, soap, coal, machine furnishings, &c., have all increased in price to a substantial extent during recent years. It is quite impossible to give any concise or accurate statement of these increases, but evidence produced in respect of one mill shows increases ranging from over 100 per cent. for coal to several hundreds per cent. for relatively unimportant commodities.

As a specimen statement of the dissection of mill costs the following table is given:—

Items in Production.	Percentage of Mill Cost.	Group Total.	Value as on 31st December, 1919.
Group I.			s. d.
Wool, &c	50.00		4 0.75
Dyes and chemicals	5.50		0 5.36
Oil, soap, and materials other than chemicals	3.90		0 3.80
Operatives' wages	$27 \cdot 24$		2 2.56
Coal	3.46	-	0 3.37
		90.10	
GROUP 2.			
Salaries and non-productive wages	4.15		$0 \ 4.05$
· ·		4.15	
GROUP 3.	İ		
Repairs and maintenance, general expenses, depreciation	5.25		$0 \ 5.12$
Insurance	0.50		. 0 0.49
		5.75	
Totals		100-00	8 11

It will be seen from the foregoing particulars that the mill cost of production has been materially increased since 1914, and, as previously stated, this increase over all items of cost has been found to be, over an average of all classes of goods produced, not less than 70 per cent. In fact, although costs have increased by this percentage, it is claimed by several of the milling companies that the increase would probably have been somewhat higher but for savings effected in some directions. It has been pointed out by the companies that new and more efficient plant installed in several mills—particularly in the early years of the war—has had the effect of (1) increasing the output, and (2) lessening the tendency towards increased cost of manufacture. The increase in output has been effected in face of the ever-present difficulty in securing adequate labour power. Further than this, it is explained that the output has been increased by reason of the fact that competition from overseas has been largely eliminated, and mills have been able to concentrate on the production of quickly produced classes of goods. In other words, specialization has been possible. This, as previously indicated, has tended towards reducing the cost of manufacture.

The following figures are of interest, showing as they do the percentages of cost of manufacture (over the total manufacture of each of nine mills) represented in the years 1914, 1918, and 1919 by (1) wool, (2) wages, (3) dyes, and (4) other materials:—

	Mill.			Year.		Wool.	Wages.	Dyes.	Other Materials
A.	• •		1914	• •		45.36	38.63	2.71	13.30
			1918			46.82	36.50	4.13	12.55
			1919			50.27	32.49	3.42	13.82
В			1914			<b>52·1</b> 0	34.32	5.46	8.12
			1918			58.75	29.31	4.41	7.53
			1919			59.83	27.61	3.44	9.12
7			1914			53.08	31.88	2.53	12.51
			1918			$61 \cdot 28$	25.94	4.90	7.88
			1919			54.30	26.48	7.60	11.62
D			1914			55.83	$31 \cdot 12$	4.60	8.45
			1918			$56 \cdot 45$	26.31	7.94	9.30
			1919			57.94	25.78	7.48	8.80
E			1914			48.53	36.16	1.42	13.89
			1918			$59 \cdot 44$	27.40	2.56	10.60
			1919			55.68	30.66	$2 \cdot 34$	11.32
F			1914			48.97	39.02	2.61	9.40
			1918			56.72	30.14	4.44	8.70
			1919			$52 \cdot 36$	33.33	4.15	10.16
G			1914			53.03	36.32	3.45	7.20
			1918			61.60	26.00	7.50	4.90
			1919			50.63	34.28	6.91	8.18
H			1914			56.74	31.33	$2 \cdot 35$	9.58
		•	1918			63.70	25.58	$2 \cdot 62$	8.10
			1919			58.74	27.56	3.33	10.37
			1914			71.69	23.57	1.25	3.49
-			1918			75.99	18.73	$2 \cdot 15$	3.13
			1919			72.82	19.87	3.86	3.45

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With reference to the figures of the last-mentioned mill, it may be explained that under the heading of "wool" there has been included the costs of large quantities of yarn, partly manufactured material used in producing woollen goods. This has increased the "wool" costs in relation to other items of cost. It will be noted that wool has generally shown a tendency towards representing an increased proportion of the cost of manufacture, while wages were decreasing in importance until the increased wage-rates granted in 1919 had their effect.

The particular circumstances of each business and the variation in systems of accounting and dates of annual balance, however, caused dissimilarity in the movements of the above percentages. The value of these figures for purposes of comparison is small unless it is assumed that a mill continued all through the period to produce exactly similar articles, or that any mills between which comparison is sought to be made produced similar classes of goods. This assump-

tion, however, has no foundation in fact.

### FINANCIAL AND TRADING RECORDS.

Manufacturing-costs have been closely examined and selling-prices of a number of samples of goods have been compared with such costs. Serious difficulties arise, however, when consideration is given to overhead charges and the expenses of distribution. All companies are forced to maintain, in greater or less degree, a selling organization. Further than this, as has already been mentioned, the larger companies do a clothing-manufacturing and general soft-goods warehousing business. This prevents the accurate compilation of costs in relation to the manufacture and sale of locally produced woollen goods. The firm's mill-production becomes a part of the raw material used by its clothing-factory or is transferred—usually at pro forma values—to the warehouse, where it is merged into the general stock of goods, both cotton and woollen, locally manufactured or of foreign origin.

For the reason indicated above, reference must be had to the financial and trading records of the companies as a whole. For this purpose detailed particulars have been supplied by nine of the ten companies. As has been previously mentioned, a recent change of ownership and the destruction of books of account has prevented the collection of information from one comparatively

small company.

The following table shows for each company, for the trading years 1914, 1918, and 1919—
(1) The share capital actually paid in; (2) the reserves; (3) the gross capital investment.

			Sh	are U	apital paid	in.	
Company.					1914.	1918.	1919.
				ถ	£	£ 974 009	£ 300,000
A				2	200,000	274,992	25,000
В	• • • •	• • •	• • •		25,000	25,000	50,000
C	• • •				43,205	49,996	
D			• • •		32,607	32,852	32,852
E	• • • •				30,000	40,000	40,000
${f F}$			• • •		15,000	15,000	15,000
$\mathbf{G}$					83,457	83,457	83,457
${f H}$	,				26,971	671,075	711,801
I	• • •		,	1	15,350	115,350	115,350
		Totals		£1,1	71,590	$\pm 1,307,722$	$\pm 1,373,460$
				I	Reserves.		
					1914.	1918.	1919.
Company.					£	£	£
A		• • •			50,000	100,000	160,150
B					47,417	96,483	125,367
$\tilde{\mathbf{c}}$	• • •	•••			27,900	58,100	67,150
$\overset{\circ}{\mathrm{D}}$		•••			17,500	24,500	27,500
Ē							
F					1,500	5,000	7,000
G	• • •	•••			10,478	16,000	17,000
H		• • •			1,000	20,000	,
I				• • • •	3,000	3,000	3,000
	į	Totals			£158,795	£303,083	£407,167

With reference to the above table, it is advisable to point out that these figures cover reserves made for both special and general purposes, and relate only to such amounts as are specifically transferred to reserve accounts. In the case of almost every company the unappropriated balance of profits has been increased in recent years as compared with 1914. These unappropriated profits are in themselves of the nature of a general reserve. Since a considerable portion of the reserves have been set aside for specific purposes, and as the unappropriated profits have not been taken into account in the above table, the figures given do not provide any very significant statement of the "reserve position" of the companies. To the extent that the companies have increased their general reserves instead of appropriating profits for purposes of paying dividends, their action is probably due to a desire to make provision for a fall in prices and a period of unsuccessful trading.

				Gross Capital	•	
Company.				1914. £	1918. £	1919. £
${f A}$				41,551	$62,\!138$	57,406
$\mathbf{B}$				17,912	13,374	18,877
$\mathbf{C}$				119,870	115,523	111,804
D				50,725	82,918	90,616
${f E}$				67,575	86,120	90,784
${f F}$				45,464	55,445	65,445
$\mathbf{G}$				307,685	438,327	505,953
$\mathbf{H}$				696,321	886,200	1,091,938
I	•••			188,704	187,043	201,699
	!	Totals	•••	£1,535,807	£1,927,088	£2,234,522

It may be explained that the gross capital has been arrived at upon recognized principles by deducting from the total of the assets of the company (1) investments outside the business, and (2) the amount of Sundry Creditors' Account—sundry debtors, of course, being allowed to rank as an asset. For profit-ratio purposes the net profits have been increased by the amount of interest paid on the loans (both fixed and fluctuating), which have been allowed to rank as capital employed in the business.

It should also be mentioned that the gross capital has been based upon book values, which in many cases are below actual present-day values. To that extent and for that reason the gross capital shown in the above statement is not necessarily the actual capital employed. In 1914 the capital paid in to the nine companies reviewed amounted to £1,171,590, and in 1919 to £1,373,460, showing an increase of £201,870. The gross capital increased from £1,535,807 to £2,234,522, an increase of £698,715. The reserves advanced from £158,795 to £407,167, an increase of £248,372 in five years.

The following table shows for each company and for each of the years 1914, 1918, and 1919 (1) the sales, (2) gross profit, and (3) percentage of gross profit on sales:—

	Company.		Yea	r.	Sales.	Gross Profit.	Percentage
					£	£	
A			1914	,.	144,413	29,281	20.1
			1918		289,912	60,452	20.8
			1919		298,386	59,911	20.3
В			1914		76,080	21,723	28.5
	,		1918		159,285	56,185	35.2
			1919		152,064	52,561	34.5
)			1914		47,933	11,538	24.1
			1918		122,091	38,746	31.7
			1919		132,314	• 46,325	35.0
0			1914		43,272	9,724	22.5
			1918		103,074	23,383	22.7
			1919		111,423	31,463	$28\cdot 2$
3			1914		38,005	6,949	18.3
			1918		86,298	25,313	29.3
			1919		80,987	24,097	29.7
Ŧ			1914		26,265	5,457	20.8
			1918		51,610	14,329	$27 \cdot 7$
			1919		62,291	17,885	28.7
£			1914		9,934	931	9.4
			1918		17,420	5,337	30.6
			1919		21,159	6,666	✓ 31.5
H			1914		239,725	64,182	26.8
			1918		449,578	122,828	27.3
			1919		449,509	114,487	25.5
			1914		943,863	155,845	16.5
			1918		1,748,010	396,154	22.7
			1919		1,720,613	375,666	21.8

This table shows that a very substantial increase in sales has taken place since 1914. The total sales in that year were £1,569,490, as against £3,027,278 in 1918 and £3,028,746 in 1919. The increase for 1919 over 1914 was £1,459,256. It should not be overlooked that these sales cover both locally produced and imported goods. Since it is impossible to make comparisons of the quantity of goods produced and sold from year to year, there is no evidence available which would reveal the extent to which increased prices have been the cause of the increased value of the total quantity of goods sold in recent years.

The percentage of gross profit on sales has also increased to some extent since 1914. The average of the nine companies was—in 1914, 19 47 per cent.; in 1918, 24 5 per cent.; and in 1919, 24 07 per cent.

The table below, showing the totals and percentages, will be of interest:-

Combined Companies.

Year.			$egin{aligned} \mathbf{Sales.} \\ \mathbf{\pounds} \end{aligned}$	$\begin{array}{c} \text{Gross Profit.} \\ \mathfrak{L} \end{array}$	Percentage of Gross Profit on Sales.
1914	 	 	1,569,490	305,630	19.47
1918	 	 • • •	3,027,278	742,727	24.50
1919	 	 	3,028,747	729,061	24.07

Turning to a consideration of *net* profits, in relation to sales, a summary of the figures for the nine companies gives the following results:—

Year.			$egin{array}{c}  ext{Sales.} \  extbf{ extit{\pounds}} \end{array}$	Net Profit. £	Percentage of Net Profit on Sales.
1914	 	 	1,569,490	85,854	5.2
1918	 	 	3,027,278	255,637	8.7
1919	 	 	3,028,747	242,721	7.9

Attention must be drawn, however, to the fact that the results of the individual companies show considerable divergence, and in one or two instances very high profits have been made in the years 1918 and 1919. This matter will be discussed in a later section of this report.

The following table shows the figures for each individual compa	nv:—	• •—
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	Company.			Year.		Sales.	Net Profit.	Percentage of Net Profit on Sales.
						£	£	
$\mathbf{A}$			1914			43,272	3,702	8.59
			1918			103,074	8,472	8.22
			1919			111,423	14,795	13.28
В			1914			26,265	2,722	10.37
			1918			51,610	7,192	13.94
			1919			62,291	9,716	15.60
C			1914			239,725	14,712	6.13
			1918			449,578	45,207	10.05
			1919			449,509	48,717	10.83
D			1914			943,863	42,306	4.48
			1918			1,748,010	133,691	7.65
			1919			1,720,613	97,327	5.66
E			1914			76,080	6,450	8.47
			1918			159,285	15,608	9.79
			1919			152,064	13,621	8.95
F'			1914			47,933	5,174	10.80
			1918			122,091	18,912	15.49
			1919			132,314	22,994	17.37
}			1914			144,413	10,495	7.34
			1918			289,912	21,913	7.56
			1919			298,386	23,153	7.76
H			1914			9,934	1,738*	17.50*
			1918			17,420	2,254	13.00
		Ì	1919			28,212	3,302	15.60
			1914			38,005	2,031	5.34
			1918			86,298	12,388	14.35
			1919		[	80,987	9,096	11.23

\* Loss.

It should be explained that the net profits shown in the foregoing statement differ slightly from the figures ascertained for the purposes of determining the ratio of net profit to gross capital. As compared with gross capital (which included loan capital), the net profits were adjusted to cover interest paid on such borrowed capital. Those adjustments were, of course, not made when it was desired to ascertain the ratio of net profit to sales.

With reference to the fact that the figures given above relate to sales of both locally manufactured and imported goods, it has been found that no very reliable information can be gathered to show the relative importance of imports and locally manufactured woollen goods. The difficulty arises from the fact that no unit of production can be adopted for comparative purposes. Values as between imported and locally manufactured goods differ greatly. No unit of mill-production could be adopted, and finally no detailed and complete information is available either in regard to quantities imported or manufactured locally. There is, however, no evidence to show that the goods manufactured in the Dominion yield a greater gross or net profit than those described as imported lines. Imports to New Zealand are classified under a number of headings, and even goods which consist wholly of wool are in many instances grouped, in the import statistics, with goods of a very different nature.

It has, however, been found from investigation of the figures of one large company that a little more than half of the sales (in value) were sales of locally produced goods. This company, however, is one which by manufacturing clothing largely adds to the value of its production. It is evident that in normal times the proportion of sales of imported goods would be much higher. This no doubt applies to all companies doing business on these lines.

The following table shows for the several companies the net profits and percentages on gross capital for the years 1914, 1918, and 1919:—

Net Profits with Percentages on Gross Capital.

0	193	14.	191	8.	1919.		
Company.	Net Profit.	Percentage.	Net Profit.	Percentage.	Net Profit.	Percentage.	
	£	İ	£		£		
A	17,256	5.6	48,395	11.0	52,449	10.3	
В	42,305	6.1	135,470	15.3	108,013	9.9	
$\mathbf{c} = \dots^{\perp}$	10,495	5.5	23,662	12.6	24,903	12.3	
D	7,013	5.9	16,109	13.9	14,621	13.1	
E	6,242	12.3	21,476	25.9	27,436	30.3	
F	4,638	6.8	9,555	11.1	16,221	17.8	
G!	2,147	4.7	12,488	22.5	9,296	14.2	
н	3,053	7.3	7,620	12.3	9,944	17.3	
I	1,373*	8.3*	2,304	17.2	3,302	17.5	
Totals	91,776	6.0	277,079	14.4	266,185	11.9	

\* Loss.

### SUMMARY AND REASONS FOR INCREASED PROFITS.

The profits carned by woollen manufacturing and distributing companies in New Zealand have to a material extent increased since 1914, (a) absolutely as to amount, (b) relatively to capital employed, and (c) relatively to sales made.

The question for decision is whether or not the profits taken, and inferentially the prices charged, have been excessively high. The investigation has shown that the net profits on sales for the industry as a whole were—in 1914, 5.5 per cent.; 1918, 6.7 per cent.; 1919, 7.9 per cent. In other words, if the prices at which the woollen companies sell their goods had been reduced in 1919 by 7.9 per cent., no profit whatever would have been earned by the "average" company.

The following reasons may be given in support of the reasonableness of profits taken and in

explanation of the increased profits as between 1919 and 1914:—
(1.) Increased output (in quantity): The fact that the mills have increased their output of goods has already been referred to, and it is only reasonable that the increase-to some extent due to increased efficiency of organization-should receive recognition in the matter of profits.

(2.) Pre-war profits were too low, and several milling companies were at that time in financial difficulties. In 1914 the average rate of net profit on sales was 5.5 per cent., and the percentage of net profit on capital was 6 per cent. These averages in themselves must be regarded as insufficient in a manufacturing industry, and it is only the inclusion of the figures of one or two relatively successful companies which brings the averages to the figures mentioned.

(3.) Installation of new and improved plant and machinery: The companies generally have during recent years endeavoured to increase the efficiency of their plant and machinery. In spite of war conditions, this endeavour has met with some success, and a refusal to recognize this fact and to allow the companies an increased profit therefor would certainly not encourage progress

in the industry.

There are other matters which must be taken into account in regard to the movement of the rate of net profits. It must be allowed that, in sympathy with general inflation of values, the decline in the exchange value of money, and the general increase in interest-rates. investors in woollen-manufacturing companies are entitled to some increase in the net profits earned by the capital so invested. In a report which has recently been made by the Fair Profits Commission of Victoria the following appears: "Where in an industry the more successful undertakings are making profits above the average by reason of their turnover being larger in proportion to capital, and for their overhead charges being less in proportion to turnover, the Commission's view is that such greater profits are a proper reward for greater business efficiency. It is where the greater profits are the result of an appreciably higher than average percentage of gross profit to turnover, or where a whole trade is making too high net profits by virtue of too high gross profit on turnover, that the question of undue profits arises substantially." no doubt that this view is fundamentally sound.

In order to test the position of the several New Zealand woollen-manufacturing companies upon this basis, tables have been compiled to show for each company (1) the relation of capital to turnover, and (2) the relation of overhead expenses to sales.

The following table shows the percentage relation of sales to gross capital during the years 1914, 1918, and 1919:-

				Percentag	e of Sales to Gro	les to Gross Capital.	
Company.				1914.	1918.	1919.	
A	 	•	 	55.46	130.25	112.09	
В	 • • •		 	63.21	83.05	108.51	
$ar{\mathbf{c}}$	 		 	83.59	155.65	123.75	
Ď	 		 	77.91	102.56	88.84	
$\mathbf{E}$	 • • •	• • •	 	135.55	197.25	157.57	
$\overline{\mathbf{F}}$	 		 	76.53	155.00	147.93	
$\mathbf{G}$	 • • •		 	63.47	137.78	136.00	
Н	 		 	94.59	147.24	146.00	
I	 		 	64.03	119.68	122.73	
	Averages	• • •	 	102.20	157.09	135.54	

The next table indicates the position of the various companies in the matter of overhead expenses in their relation to sales. It will be noticed that expenses have been treated both inclusive and exclusive of income-tax, and it may be explained that for the purpose of judging the overhead efficiency of a company it is necessary to eliminate income-tax—a charge which is relative to the profit made, and which has no very direct relation to the management of the enterprise. For that reason, particular consideration should be given to the percentages shown in the right-hand column:—

				(1)	(2)		(3)	
Company.		Year.		Sales.	Overhead Charge, inclusive of Income-tax.	Percentage of (2) to (1).	Overhead Charge, exclusive of Income-tax.	Percentage of (3) to (1).
				£	£		£	
$\mathbf{A}$		1914		9,934	2,543	$25 \cdot 6$	2,543	25.6
		1918		17,420	3,060	$17 \cdot 6$	2,617	15.0
		1919		28,212	4,440	15.8	4,343	15.4
В		1914		26,265	2,844	10.8	2,814	10.7
		1918		51,610	7,292	$14 \cdot 1$	4,046	7.8
		1919		62,291	8,178	13.1	4,296	6.9
$\mathbf{C}$		1914		38,005	4,935	12.9	4,864	12.8
		1918		86,298	12.833	14.9	7,435	8.6
		1919		80,987	14,830	18.3	9,618	11.8
D		1914		239,725	49,470	20.6	47,352	19.7
		1918		449,578	76,697	17.1	58,409	13.0
		1919	!	449,509	64,784	14.4	47,100	10.5
E		1914		943,863	113,539	12.0	110,052	$\overline{11.7}$
		1918	, ,	1,748,010	261,478	14.9	215,125	12.3
		1919		1,720,613	277,376	16.1	192,664	$\overline{11\cdot2}$
F	!	1914		144,413	18,857	13.1	18,522	$\overline{12.8}$
		1918		289,912	36,954	12.7	24,698	8.5
		1919		298,386	35,350	11.8	22,419	7.5
G		1914		76,080	15,278	20.1	14,711	19.3
0.		1918		159,285	40,081	$25 \cdot 1$	31,479	$\overline{19.7}$
	i	$\overline{1919}$		152,064	37,940	24.9	30,480	<b>20</b> ·0
H		1914		47,933	6,364	13.3	5,972	12.5
		1918		122,091	19,533	16.0	11,662	9.5
		1919		132,314	22,332	16.8	13,922	10.5
I		1914	1	43,272	6,023	13.9	5,890	13.6
_		1918		103,074	14,665	$14 \cdot 2$	10,115	9.8
		1919	• •	111,423	16,172	14.5	11,728	10.5
Total		1914		1,569,490	219,853	14.0	212,720	13.5
,,		1918		3,027,278	472,593	15.6	365,586	12.0
,,		1919		3,028,747	481,402	15.9	336,570	11.1

It will be seen by reference to the first table on page 8 that the net profits of Company E in that table in relation to the capital of the company were in each year considerably in excess of the rate of net profit taken by the other companies. Companies F, G, H, and I were also somewhat above the average during the years 1918 and 1919. These latter companies, however, were among the least successful in pre-war years, and, being small firms, hardly merit particular consideration here.

Company E, however, may be said to have a case to answer. This firm is shown as Company H in the two tables immediately preceding, and appears as Company F in the third table on page 7. A summary of the figures for this firm are given below:—-

						1914. £	1918. £	1919.
Chara maintel						-	-	£
Gross capital	• •	* * *		• • •		50,725	82,918	90,616
$Sales \dots$						47,933	122,091	132,314
Gross profit				• • • • • • • • • • • • • • • • • • • •		<b>11,53</b> 8	38,746	46,325
Overhead expenses,	exclusive	of income	-tax			5,972	11,662	13,922
Net profit from tra-	ding (rel	ative to sa	les)			5,174	18,912	22,994
Net profit for purpo	se of con	iparison w	ith gros	s capital		6,242	21,476	27,436
Percentage of sales	to gross	eapital				94.50	$147 \cdot 24$	146.00
Average all	l compan	ies				102.20	157.09	135.54
Percentage of gross	profit to	sales				$24 \cdot 1$	$31 \cdot 7$	35.0
Average al	l compar	nies				21.4	24.5	23.1
Percentage of overhe	ead expe	nses to sale	8			12.5	9.5	10.5
Average all	I compar	ies				13.5	12.0	11.1
Percentage of net pr	ofit on s	ales			•	10.80	15.49	17.37
Average all						5.5	8.7	7.9
Percentage of net pr	ofit on gr	ross capital				12.3	$25 \cdot 9$	30.3
Average all	compan	ies			• • •	6.0	14.4	11;9

An examination of the above figures will show that while the overhead expenses of this firm are, in relation to sales, slightly below the average, the percentage of sales to gross capital does not vary greatly from the average results of all the companies combined. The rate of gross profit on sales, however, is materially above the average, and this has undoubtedly been the main cause of the high rates of net profit on sales and of net profit on capital.

In conclusion, the Board desires to express its opinion that upon the evidence disclosed it cannot be said that the woollen-milling companies of New Zealand have taken excessive profits during recent years. The profits have certainly been increased during the war period, and on the gross capital outlay the average net profit in 1919 amounted to approximately 12 per cent. As has already been pointed out, a reduction in prices of less than 8 per cent. would place the companies in such a position that no profit whatever would be earned by the average company, while at least two of the largest companies would be conducting business at a loss.

Further investigation will be made regarding the operations of one or two of the more successful companies, and the Board's recommendations in this connection will then be submitted to you.

Inquiries are now being made in order that the Board may be in a position to report on the operations of firms through whose hands woollen goods pass during the process of distribution.

W. G. McDonald,

Chairman, Board of Trade.

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