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Sheep

THE WEST OF SCOTLAND AGRICULTURAL COLLEGE

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SOME INFLUENCES BEARING ON THE SCOTTISH SHEEP INDUSTRY

by

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FOREWORD AND ACKNOWLEDGEMENT

This report which was originally prepared in the late autumn of 1976 for circulation within the College brings together, from a variety of sources, information relevant to the Scottish sheep industry.

Much of this information is in the form of tables or extracts from tables and acknowledgement is made in the report of the sources quoted.

Thanks are due to the Head of the Agricultural Economics Division, Mr. J. Clark who encouraged the preparation of this report and also to Mr. R.W.T. Hunt, Mr. J.B.McCreath and Mr E.D. Sargent who read the drafts and made helpful criticisms.

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SOME INFLUENCES BEARING ON THE SHEEP INDUSTRY IN SCOTLAND

INTRODUCTION

The report begins by summarising the value of the output from the Scottish sheep industry, showing the contribution sheep and wool make to total Scottish agricultural output. It then reviews trends in sheep production in Scotland, relating Scottish sheep numbers to those in the United Kingdom.

There follows an examination of the market for mutton and lamb in the United Kingdom, showing how it is shared between home-producers and overseas suppliers, with special reference to New Zealand, our principal overseas supplier.

Next, trends in consumption and preferences for different types of meat are analysed and attention is drawn to various factors affecting demand.

The final section dealing with prices and recent developments, views the prospects against the background of Britain's present economic state. It concludes with a discussion on the place of Scottish sheep farming within the wider context of the European Economic Community.

CHAPTER 1

SHEEP AND WOOL OUTPUT AND SHEEP NUMBERS IN SCOTLAND

The value of total Scottish agricultural output for 1975/76 has been forecast at £578.5 million - 11 per cent of the United Kingdom total agricultural output of £5054 million. The contribution made by the Scottish sheep industry is estimated as £40.7 million for fat sheep and lambs, £5.3 million for sales of store sheep and lambs to other parts of the U.K. and £5.2 million for wool (clip wool only as the value of skin wool is included with fat sheep) accounting for 7.0 per cent, 0.9 per cent and 0.9 per cent respectively of total Scottish agricultural output. Although sheep and wool output amounts to less than one tenth of total Scottish agricultural output the sheep industry has an important place in the structure of Scottish agriculture. This is particularly so in the hill and upland areas which are the main source of the seasonal supply of lambs for fattening and crossing required by farmers on lower ground not only in Scotland but also in northern England. Lowground breeding flocks also have their place on dairy, beef cattle and arable farms although often in a somewhat secondary role.

In 1971/72, the last period for which members of the Economics and Statistics Unit of the Department of Agriculture and Fisheries for Scotland (DAFS) prepared a regional study+, total agricultural output for Scotland was estimated at £282.65 million of which fat sheep and lambs accounted for £24.44 million (8.6 per cent), sales of store sheep and lambs to other parts of the UK £3.7 million (1.3 per cent) and clip wool £4.0 million (1.4 per cent). The percentage distribution of this output within the regions* and by regions in Scotland is summarised in Tables I and II.

+Mackenzie, Martin and Miss Scarlett, Agricultural Output of Scotland by Regions 1971/72, Scottish Agricultural Economics, 1975, Vol. XXV. DAFS.

*The old counties comprising the regions are as follows:-

Highland: Argyll, Inverness, Ross and Cromarty, Sutherland, Zetland.
North East: Aberdeen, Banff, Caithness, Kincardine, Moray, Nairn, Orkney.
East Central: Angus, Clackmannan, Fife, Kinross, Perth.
South East: Berwick, East Lothian, Midlothian, Peebles, Roxburgh, Selkirk, West Lothian.
South West: Ayr, Bute, Dumfries, Dunbarton, Kirkcudbright, Lanark, Renfrew, Stirling, Wigtown.

Table I

Sheep and Wool Output as Percentage Distribution of Total Output 1971/72 (within regions)

	Highland	North East	East Central	South East	South West	Scotland
Fat sheep and lambs	9.7	4.6	7.9	11.6	10.7	8.7
Store sheep and lambs*	17.9	1.4	(-) 1.4	4.2	(-) 1.7	1.3
Clip wool	6.3	0.6	0.9	2.0	1.1	1.4
Sheep: fat, store & wool	33.9	6.6	7.4	17.8	10.1	11.4
Cattle: fat & store	28.7	39.9	23.0	22.1	28.7	29.2
Milk and milk products	15.8	12.0	9.5	7.8	41.3	20.4
Farm crops	8.5	14.7	31.7	23.5	3.3	15.8
All other output	13.1	26.8	28.4	28.8	16.6	23.2
Total output	100.0	100.0	100.0	100.0	100.0	100.0

*Value of net transfers into or out of regions

Sheep and wool account for just over one third of total output in the Highland region, followed by the South East region at almost 18 per cent and by the South West at ten per cent.

It will be seen that during the 1971/72 year the East Central and the South West bought in slightly more store lambs than they sold out of their regions.

Table II

Sheep and Wool Output as Percentage Distribution of Total Output 1971/72 (by regions)

	Highland	North East	East Central	South East	South West	Scotland
Fat sheep and lambs	7.7	12.9	20.9	19.1	39.4	100
Store sheep and lambs*	93.6	25.7	(-)24.7	46.2	(-)40.8	100
Clip wool	30.0	10.7	14.0	20.2	25.1	100

*Value of transfers into or out of region

This brings out the importance of the Highlands as an exporting region of store lambs.

Of the United Kingdom's sheep population of around 28 million (as enumerated in the June census) somewhat over one quarter - 7½ million are in Scotland. At the December census when numbers are lower the corresponding figures are 20 million and just over 5 million giving the same proportion of around one quarter of the national flock in Scotland.

The percentage distribution of the sheep population among the regions of Scotland is shown in Table III.

Table III

Scottish Sheep Population and Percentage Regional Distribution at June and December

	1970		1971		1972		1973		1974		1975	
	June	Dec	June	Dec	June	Dec	June	Dec	June	Dec	June	Dec
	Numbers '000s											
Scotland	7493	5404	7454	5378	7552	5389	7573	5462	7571	5439	7536	5346
	Percentages											
Highland	28.8	28.5	28.8	28.4	28.5	28.0	27.1	26.4	26.5	26.6	26.6	26.3
North East	11.9	11.6	11.6	11.4	11.5	12.4	12.2	12.2	12.2	12.5	11.9	12.1
East Central	13.4	15.5	13.7	15.7	13.8	15.3	14.0	15.7	13.9	15.5	13.9	15.4
South East	18.4	17.9	18.5	18.1	18.5	18.0	18.7	18.9	18.9	18.7	19.0	18.9
South West	27.5	26.5	27.4	26.4	27.7	26.3	28.0	26.8	28.5	26.7	28.6	27.3

Source: DAFS Agricultural Statistics, Scotland

It will be seen from the above table that in the seventies the numbers of sheep in Scotland have remained relatively static. The results of the census taken in June 1976 gave a total of 7,478,000 which is a drop of less than one per cent on the corresponding figure for 1975. The provisional results for December 1976 gave numbers as 5,296,000 a one per cent drop on the corresponding figure for 1975. Over the period 1970/75 the percentage changes were as shown in Table IV.

Table IV

Percentage Changes for Scotland and Regions 1970/75 at June and December

	1970/75	
	June	December
Scotland	+ 0.6	(-) 1.1
Highland	(-) 6.9	(-) 8.6
North East	+ 0.3	+ 3.2
East Central	+ 3.8	(-) 1.7
South East	+ 3.6	+ 4.2
South West	+ 4.8	+ 1.9

The principal change since 1970 has been the decline in sheep numbers in the Highland region which now moves into second place just behind the South West region (26.3 per cent of Scotland's sheep population against the South West's 27.3 per cent).

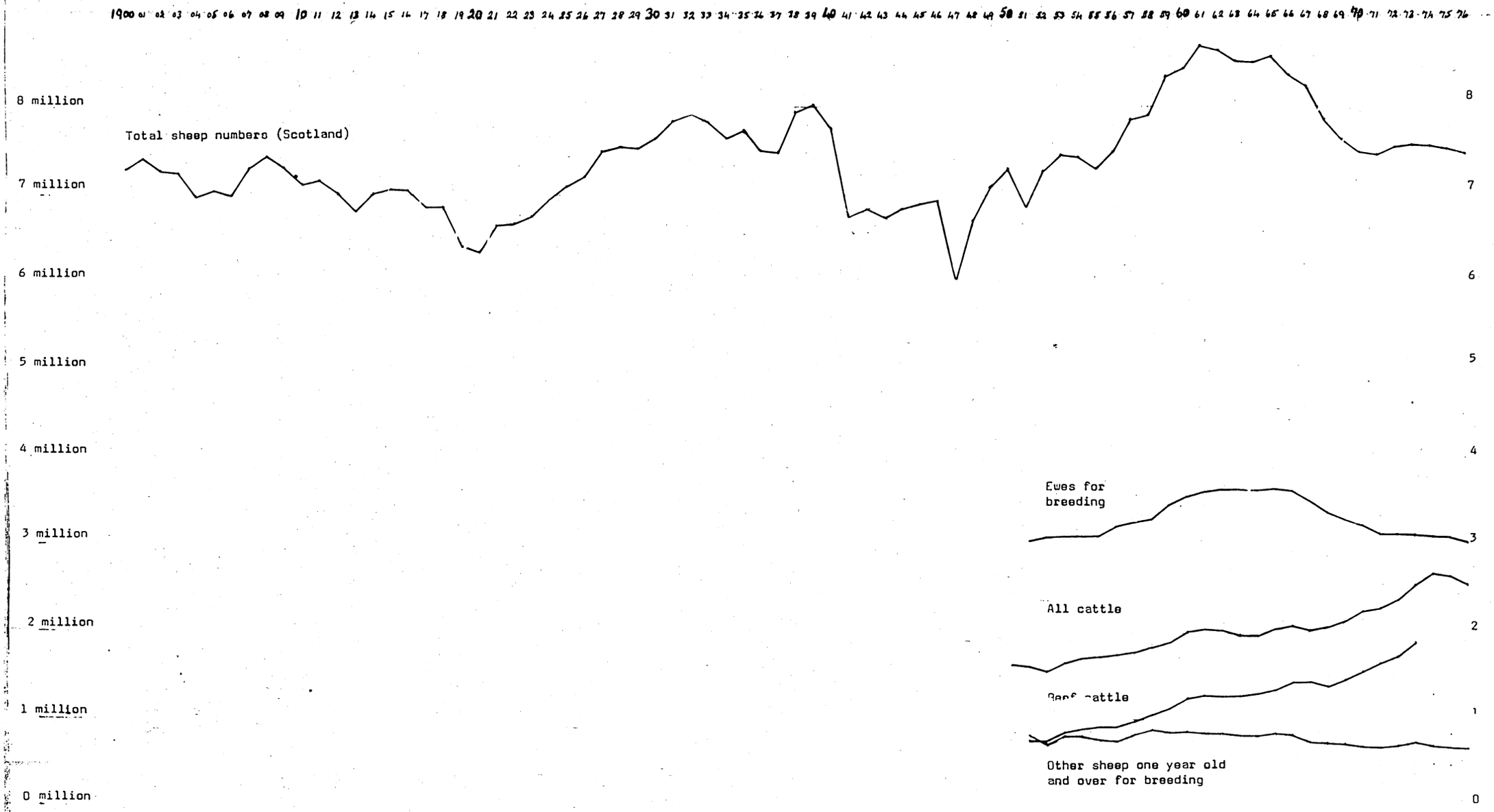
To give the historical view for Scotland as a whole, the trend in sheep numbers from the turn of the century is shown in Fig I. The data for this longer term analysis are drawn from the June census series. It is realised that due to weather, the condition of the breeding sheep and the resulting lambing percentages, the numbers may vary from one June to the next more than they would in a December series.

The Scottish sheep population showed a declining trend from 1900 and the early twenties and then rose from the mid twenties up to the outbreak of World war II.

Figure 1

Scottish Sheep and Cattle Numbers

(June Census)



The first big decline became evident, when the 1941 census showed a drop of over 15 per cent in the United Kingdom flock numbers and 13 per cent for Scotland. Restrictions in the import of animal feedingstuffs and more ploughing with a reduction in the area of grass led to a decline in livestock numbers and under the Animal Feeding Stuffs Rationing Scheme introduced in 1941 priority was being given to milk production.

A second very steep drop took place as a result of the severe and disastrous winter of 1946-47 when many livestock especially sheep perished in deep snowdrifts or were drowned in the floods that followed in the spring. For the United Kingdom as a whole sheep losses were 18 per cent and for Scotland nearly 13½ per cent.

The lowest point in the Scottish sheep population was in 1947 when numbers fell to almost 6 million from just over 8 million in 1939. During the same period the numbers for the United Kingdom dropped from nearly 27 million down to under 16¾ million.

Thus over the period 1939/47 there was a drop of 38 per cent for the United Kingdom and 25 per cent for Scotland. This probably reflects the wartime ploughing up of longer leys in England with a displacement of low ground sheep whereas most of Scotland's sheep were hill breeds and Scots farmers in any case did not so often lay down arable type land to permanent grazing. In the winter and spring of 1946/47 although losses in Scotland were grievous they were proportionately lower than the average for the U.K.

There then began a slow build up and the Scottish flock reached a peak of nearly 8¾ million sheep in 1961. Since then it has fallen back by 6 per cent to the present level of 7½ million sheep. For the United Kingdom, maximum numbers of almost 30 million were recorded in 1965. They are now about 28 million, a decline of 14 per cent.

Fig. 1 also shows the trends in Scotland since the fifties in the numbers of ewes for breeding and in other sheep one year old and over for breeding. Ewe numbers were highest from 1961 to 1966 at just over 3.6 million. They are now relatively static at around 3.1 million.

The younger sheep for breeding reached their peak number of almost 0.9 million in 1958 and remained at over 0.8 million until 1966 since when numbers have gradually declined to just under 0.7 million.

The trend over the same period in the cattle population for Scotland is also shown. It will be seen that beef cattle numbers which made up rather less than half the total cattle numbers in 1951 (777,000 beef cattle out of 1,600 total cattle), steadily increased so that in 1973 they represented three quarters of the total (1,913,000 beef cattle out of 2,566,000 total cattle). By 1966 the number of beef cows had increased from 94,500 in 1939 to 343,200 to overtake the number of dairy cows which after reaching a peak of 365,200 in 1957 had fallen back to 332,000 in 1966. By 1975 beef cows numbered 550,300 against dairy cow numbers of 302,100. The graph does not show cow numbers but total cattle numbers. Data for total beef cattle are not continued after 1973 as the statistics changed slightly in 1974. Instead of two simple categories, beef cattle and dairy cattle, a third mixed category was introduced of other dairy beef cattle under one year old plus bulls for service.

However, the figures are sufficient to show that as sheep numbers declined, cattle numbers, especially beef cattle, increased due to Government encouragement and improved prices arising from fears of a world shortage in beef supplies. In the event the tight supply situation for beef in 1973 gave way to a surplus in 1974 and there was a price fall particularly noticeable at the 1974 autumn calf sales.

Store lamb and draft ewe prices which had been improving and had reached their peak in 1973 also suffered a severe drop at the 1974 sales. However, help came in the form of increased hill and upland ewe subsidies and the guaranteed prices for wool and fat sheep were increased. Except for two weeks in August, market prices for fat lambs in 1976 were above the seasonal standard (guaranteed price) and although breeding flock numbers are expected to fall a little further in 1977, prices recently paid for rams and young breeding stock would indicate that there is an air of confidence about the sheep industry.

CHAPTER II

HOME-PRODUCTION AND IMPORTS

Supplies of mutton and lamb (both home-produced and imported) for the United Kingdom have to be considered within the context of the total meat supplies available in the United Kingdom. Details are shown in Table I in the Appendix.

Table V extracted from the Appendix, summarises the recent supply position, showing that, as in most developed countries, beef is the principal type of meat supplied, followed in the United Kingdom by poultry meat, pork, bacon and ham and finally mutton and lamb.

Table V

United Kingdom Meat Supplies (net of exports)

'000 tonnes

	Beef and Veal	Mutton and Lamb	Pork	Bacon and Ham	Poultry	Total
1975/76	1258	482	561	479	633	3414
1976/77 (forecast)	1115	442	576	474	643	3250

As regards source of supply, the broad picture is that the United Kingdom is self-sufficient in poultrymeat and pork; produces about 90 per cent of its beef requirements, about 55 per cent of mutton and lamb and just over 40 per cent of bacon and ham requirements.

The supply situation for mutton and lamb is shown in diagrammatic form opposite. It will be seen that the proportion of home-produced mutton and lamb has tended to rise and that exports have increased almost fourfold, from 10,000 tonnes in the late mid sixties to 41,000 tonnes forecast for 1976/77, mainly to EEC countries. Nevertheless, due to the seasonality of supply of home production, we still import nearly half of our annual requirements from overseas.

Table VI details the imports of mutton and lamb into the United Kingdom. Figures are in Imperial tons and are taken from Commonwealth Secretariat sources. They highlight the overwhelming importance of New Zealand as our principal overseas supplier, which accounts for 98 per cent of our lamb imports.

Table VI

United Kingdom: Imports of mutton and lamb

(tons)

	1971	1972	1973	1974	1975
MUTTON					
Fresh, chilled or frozen					
Australia	13,442	15,107	9,409	3,034	4,819
New Zealand	19,350	12,502	8,413	3,849	5,430
United States	333	1,360	357	76	17
Other countries	225	538	146	337	332
Total	33,350	29,507	18,325	7,296	10,598
LAMB					
Fresh or chilled					
Irish Republic	8,009	2,570	367	355	1,336
Other countries	18	-	-	14	111b
Total	8,027a	2,570a	367a	369a	1,447
Frozen					
Australia	18,525	15,870	13,528	4,355	2,621
New Zealand	286,054	276,611	227,046	196,454	224,965
Irish Republic	1,031	438	424	376	26
Other countries	696	991	1,749	514	325
Total	306,306	293,910	242,747	201,699	227,937

a "Fresh" only; "chilled" included with "frozen". b Of which New Zealand 76.

Source: Commonwealth Secretariat

Figure 2

United Kingdom Mutton and Lamb Supplies

'000 tonnes

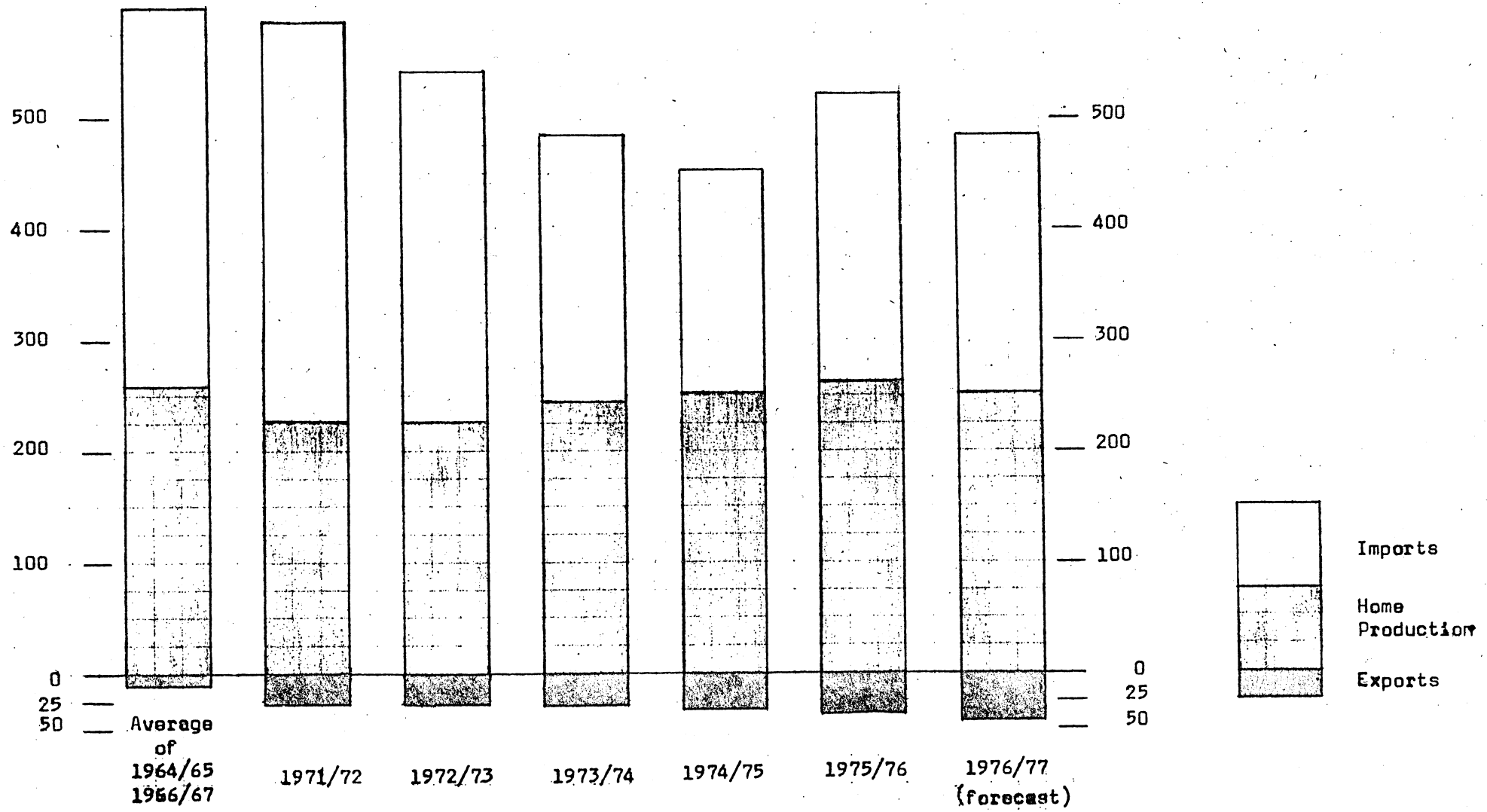


Table VII

Exports of New Zealand Lamb: Year Ended 30th September

(tonnes)

	1970	1971	1972	1973	1974	1975	1976
United Kingdom	291483	291875	279338	220704	197401	223853	204069
Belgium Luxembourg	410	643	1379	1241	1101	756	1332
Denmark	71	120	180	257	309	308	1129
Federal Republic of Germany	127	227	1334	986	3218	4770	3741
France	1879	3300	4142	6607	400	669	850
Italy	1252	1277	1872	3827	1299	4070	2881
Netherlands	1667	2264	2777	3966	1791	1841	2998
Total EEC	296889	299706	291022	237588	205519	236267	217000
Other Countries	38385	37508	48661	68347	44971	59128	98263
Total Exports	335274	337214	339683	305935	250490	295395	315263
United Kingdom Percentage	86.9	86.6	82.2	72.1	78.8	75.8	64.7
EEC Percentage	88.6	88.9	85.7	77.7	82.0	80.0	68.8

Source: New Zealand Meat Producers' Board

In Table VII, extracted from data provided by the New Zealand Meat Producers' Board the great importance of the United Kingdom as New Zealand's chief market for her exports of lamb is clearly seen; and although over the years the percentage has been falling, the United Kingdom in 1976 was still taking almost two thirds of New Zealand's exports of lamb.

In 1966 the New Zealand Government introduced a meat export diversification scheme which required all freezing companies to export a fixed percentage of lamb to countries other than the United Kingdom with a penalty on the non-diversified lamb. At present at least 30 per cent of exports should be to markets other than the United Kingdom. Thus exporters in New Zealand are seeking out other markets in the Middle East, Greece, North America and Japan. Table VIII gives details of these exports for 1975 and 1976.

Table VIII

Exports of New Zealand Lamb: Year ended 30th September

	1975		1976	
	tonnes	%	tonnes	%
United Kingdom	223853	75.8	204069	64.7
Other EEC Countries	12414	4.2	12931	4.1
Middle East	17671	6.0	34322	10.9
Greece	5877	2.0	15127	4.8
North America	13897	4.7	21078	6.7
Japan	8214	2.8	10499	3.3
Other Countries	13469	4.5	17237	5.5
Total	295395	100.0	315263	100.0

Source: New Zealand Meat Producers' Board

The United Kingdom, as a member of the EEC has now had to apply custom duties on imports of mutton and lamb from third countries such as New Zealand. At the moment this is 16 per cent and is to be increased to the full EEC charge on imports of 20 per cent with effect from 1st July 1977. In spite of this it would seem that the United Kingdom will remain New Zealand's principal market for some time to come.

In an article "Focus on Scotland" in the Meat Trades Journal (19/8/76) it was suggested that of the estimated 210,000 tons or so of frozen lamb coming into the United Kingdom in 1976 from New Zealand, only about 1,000 tons were for sale in Scotland and that the New Zealand Meat Producers would be vigorously pursuing sales in this (for them) almost untouched market. Scotland, however, is more than self-sufficient in mutton and lamb and in addition to sending live animals and carcases to England has been building up an export trade with the continent. It was also stated in the same article that Scotland exported in 1975 about one-third of its lambs slaughtered mainly to France making up around 40 per cent of the United Kingdom's mutton and lamb exports of 33,000 tonnes.

It may be that the New Zealand Meat Producers' Board and the Scottish Quality Beef and Lamb Association will be able to promote and increase sales of lamb in Scotland but it must be remembered that the consumption of mutton and lamb per head in Scotland is only half that of the national average for Great Britain.

CHAPTER III

DEMAND AND CONSUMPTION

Table IX taken from the Meat and Livestock Commission, Economic Information Service, Meat Demand Trends, shows the changes in the indices of meat consumption for the various meat categories since 1955 (the first full year after rationing).

Table IX

Index of Meat Consumption 1955/75

	1955	1975
Beef and veal	100	110
Mutton and lamb	100	75
Pork	100	127
Bacon and ham	100	77
Poultry meat	100	391
Offal	100	109
Total meat	100	107

Source: MLC

In the twenty years from 1955, the consumption of poultry meat has greatly increased. Pork also is higher as are beef and veal and offal. Bacon and ham and mutton and lamb consumption, however, have declined, the latter by a quarter.

Appendix Table II shows the estimated supplies of the main types of meat per head of population over the last 12 years expressed in lb per head per annum.

Mutton and lamb supplies averaged about 23½lb per head per annum in the period 1964-68. In 1969 they were just over 21½lb and the situation in the seventies is shown in Table X.

Table X

Estimated Mutton and Lamb Supplies per Head of Population

lb. per head per annum

	1970	1971	1972	1973	1974 revised	1975 provisional
Mutton and lamb	21.2	22.1	20.4	18.2	16.9	18.4

Source: MLC

It will be seen that apart from a slight rally in 1971 and 1975 the trend has been downwards. The provisional figures per head in 1975 for the other meats were 50.9 lb (incl. weight of bone) for beef, 22.6 lb for pork, 19.2 lb for bacon and ham, and 21.2 lb for poultry.

In a differently calculated estimate, not of supplies expressed per head of population, but of per head consumption of carcase meat (weight as purchased and excluding usage in manufactured products such as sausages and meat pies), the MLC gave the following figures.

Table XI

Estimated U.K. per Head Consumption of Carcase Meat

lb. per head per annum

	1971	1972	1973	1974 provisional
Beef and veal	29.4	25.9	23.8	28.1
Mutton and lamb	20.2	18.8	16.9	15.7
Pork	11.3	11.7	11.4	12.2
Poultry (incl game and rabbits)	22.4	26.3	25.8	25.2

Source: MLC

The above figures would show that in terms of purchased weight of carcase meat, poultry had even exceeded that of beef.

A comparison of the consumption of the different types of meat, between Scotland and the national average for Great Britain expressed as oz. per person per week and prepared from various reports of the National Food Survey Committee on Household Food Consumption and Expenditure is given in Table XII overleaf. This brings out the falling trend in the consumption of mutton and lamb and shows that the average per head consumption of mutton and lamb in Scotland is only about half that of the national average. The same applies to pork. Also less poultry meat is eaten per head in Scotland. It is only for beef that the Scottish preference is clearly seen - about one-third more per head than the national average.

This generally falling trend in the consumption of mutton and lamb has also been noted in Australia and New Zealand which nevertheless at over 60 lb per head per annum still eat more than three times the United Kingdom amount of 18.4 lb per head per annum. Argentina and the USA where average consumption is less than in the U.K. have also shown a declining trend. However, the Middle East and Japan have now rising trends although the latter still has less than 3 lb per head average yearly consumption.

Table XII

Average per Head Consumption of Carcase Meat and Poultry
Scotland compared with Great Britain (national average)
(oz per head per week)

	Beef and Veal			Mutton and Lamb			Pork			Poultry		
	Scotland	National Average	% Deviation from Nat.Av.	Scotland	National Average	% Deviation from Nat.Av.	Scotland	National Average	% Deviation from Nat.Av.	Scotland	National Average	% Deviation from Nat.Av.
1969	9.20	7.70	+ 19	2.92	5.34	(-) 45	1.14	2.78	(-) 59	3.76	4.72	(-) 20
1970	9.44	7.80	+ 21	1.99	5.25	(-) 62	0.98	2.83	(-) 65	3.52	4.84	(-) 27
1971	10.14	7.96	+ 27	2.48	5.41	(-) 54	1.58	3.04	(-) 48	2.96	4.71	(-) 37
1972	8.86	6.90	+ 28	1.78	4.96	(-) 64	1.05	3.10	(-) 66	3.17	5.46	(-) 42
1973	8.48	6.30	+ 34	2.33	4.44	(-) 48	1.13	3.00	(-) 62	3.92	5.86	(-) 33
1974	9.78	7.41	+ 32	2.14	4.11	(-) 48	1.77	3.20	(-) 45	4.00	4.99	(-) 20

Source: National Food Survey

Nearer home in the EEC countries, apart from Ireland, consumption of mutton and lamb has been almost neglible with the exception of France at the still rather low figure of around 8 lb per head per annum. See Table XIII. However, the trend on the continent is upwards and it seems that this is a market which our own sheep farmers will develop. There are now exports to France, Germany Belgium and Italy, although the French market is protected by a threshold price mechanism which keeps out imports from countries other than the original six whenever the French market price falls below the threshold price of 16.50 francs per kg. deadweight. Import licences are not available until the market price has exceeded the threshold price for two consecutive weeks. At the moment the United Kingdom and the Irish Republic are the two countries most affected by this arrangement. There have been meetings of the EEC Council to consider a sheepmeat policy, but so far not much progress has been made. The implications of the trade with France and the continent will be discussed in the next section which deals with prices and recent developments.

Table XIII

Meat Consumption and Self-Sufficiency in the EEC Countries

	Beef and Veal		Mutton Lamb and Goatmeat		Pigmeat		Bacon and Ham		Poultrymeat	
	kg/ head	% self suffic	kg/ head	% self suffic	kg/ head	% self suffic	kg/ head	% self suffic	kg/ head	% self suffic
West Germany	23	88	...	58	48	87			9	52
France	28	105	4	71	33	87			14	108
Italy	28	50	1	53	16	76			15	98
Netherlands	21	105	...	333	31	216			7	375
Belgium/ Luxembourg	28	85	1	36	38	170			10	114
Denmark	15	260	...	50	35	456			7	265
Ireland	19	511	11	131	32	149	19	137	13	105
U.K.	21	69	8	50	27	66	10	44	12	100
EEC - 9	24	86	3	59	32	101	n.a.	n.a.	12	104

... less than half a kg

n.a. not available

Source: Ministry of Agriculture, Fisheries and Food, EEC Agricultural and Food Statistics, 1972/75

To sum up then, it is clear that the consumption of sheepmeat in the United Kingdom has been declining, although in 1975, when supplies increased there was a slight rise. Certainly the amount available, which is reflected in retail prices, must affect the amount consumed and it looks as if the 1976 consumption figures will be lower than for the previous year. It has been shown that the U.K. is receiving a diminishing share of New Zealand's exports. Our own sheep farmers would like to expand production and there are indications (the prices of breeding stock at last year's sales) that there is a move in this direction, but invariably there will be a time-lag of a year or two before the effects begin to be felt in increased home production of fat lamb. Supplies in the meantime will remain fairly light and this will be reflected in the price.

However, regardless of price, lamb has become a less popular choice of meat. Various suggestions have been put forward as to why this should be so. It would seem that it is preferred by the older rather than the younger generation. It is said by some to be too fat and there are those who would prefer not to be served with cold lamb. Cutlets are delicious but small. A joint may be difficult to carve. Other possible reasons for consumer resistance are the distribution of fat in sheepmeat cuts and the fact that, unless in rolled lamb, bone is present in most cuts. It may seem strange to those who enjoy eating lamb that it should have lost its place in public favour.

"Firm and erect the Caledonian stood;
Sound was his mutton and his claret good;"

Where are the mountain wether flocks and the stronger flavoured mutton now? Perhaps changing tastes are a reflection of recent trends in food processing where "bland" flavours appear to be preferred by manufacturers to stronger flavours. Leaving mutton and returning to lamb, a recent study (Wilson, Lesser and Prescott, Lamb Consumers Prefer, Newcastle, 1974) ends with the warning. "Clearly if lamb is not to lose even more favour with the consumer there is reason to act upon the main conclusion of this and other work that leanness is the lamb characteristic which consumers most look for."

CHAPTER IV

PRICES. RECENT DEVELOPMENTS AND OUTLOOK

In any discussion on prices, the changing value of the pound sterling has to be kept in mind. This is of relevance to any price series, particularly during the seventies when inflationary trends have been most marked.

Fears of a shortage of beef supplies in 1972/73 were followed by a world surplus leading to a slump in livestock prices in the autumn of 1974. Sheep prices were also affected and in October 1974 the average market price for fat sheep (England and Wales) fell to 21.9p per lb. est. dead carcase weight. The effects of this slump were also felt in the store (especially the hill and upland) sector of the industry. Hill farmers, after the good year of 1973, suffered a sharp drop in the prices they received for suckled calves, store lambs and draft ewes. Table XIV shows the fall in the 1974 prices for ewes and lambs. (Items with asterisks indicate sales from July to December.)

Table XIV

Weighted Averages of Store Sheep Prices

(£'s)

	1970	1971	1972	1973	1974	1975
Ewes						
Uncrossed for breeding						
*Blackface	4.40	5.58	7.04	11.16	6.17	8.72
*Cheviot	8.14	7.57	12.11	13.26	7.94	12.59
with lambs at foot	10.82	12.08	14.57	18.12	19.79	21.59
Lambs						
*Blackface	4.13	5.34	6.72	9.00	6.82	8.61
*Half Bred	9.02	10.65	15.57	18.93	15.99	17.09
*Cheviot	5.33	6.75	7.98	10.93	8.26	11.29
*Greyface	6.32	7.46	9.03	11.54	10.15	12.12
*Down Cross	8.05	9.30	10.95	13.78	11.99	14.49

*July to December sales

Source: DAFS Agricultural Statistics, Scotland

The position was considered so serious that the hill and upland sheep subsidies which had remained at £1.50 and £0.95 per ewe respectively since 1971 were increased with effect from 1st December 1974 to £3.00 and £2.25 per ewe. These later figures include the 25p winter keep headage payment. Table XV shows the trend in the market prices for fat sheep as well as the guaranteed prices for fat sheep and wool. The increases in the guaranteed price in 1975 and 1976 for fat sheep and wool must imply official encouragement to continuing and perhaps increasing production. The guaranteed price for fat sheep is converted as in the past into a scale of weekly standard prices.

Due to the stratified nature of the sheep industry and to a lesser extent the beef industry, Government help, in addition to setting a floor to the price of the end product, also takes the form of injections of aid at points along the production line e.g. hill cow, beef cow and calf subsidies and hill ewe and upland ewe subsidies. These hill livestock compensatory allowances as they are now called have helped to maintain and even expand production (at any rate for beef) in what under EEC rules are termed less favoured areas.

For the sheep industry as with beef cattle it is generally accepted that the price received for the fat animal sets the tone of the market and the effects of any changes are felt right down the lines of supply to the original sources of production. Also the price paid for the fat animal depends on the butcher's knowledge of what his customers are prepared to pay for a given quantity of meat. The consumer in his turn decides how much of his disposable income (which, in many cases, in real terms, is falling) is to be spent on food and of that how much on meat.

As a general guide, about 20 per cent of total consumers' expenditure is for food and of that around 28 per cent is for meat. In other words meat accounts for 5 per cent to 6 per cent of total consumers' expenditure. Expenditure on mutton and lamb accounts for approximately 11 per cent of expenditure on meat and from 0.6 per cent to 0.7 per cent of total consumers' expenditure. (See Appendix Tables III and IV.)

Table XV

Market Prices, Guaranteed Prices and Hill Sheep Subsidies

	1970	1971	1972	1973	1974	1975	1976
Market Prices							
Fat sheep p per lb estimated dead carcase weight	17.5p	18.4p	25.4p	32.9p	31.0p	35.8p	50.0p
Guaranteed Price							
Fat sheep p per lb estimated dead carcase weight	19.5p March 20.1p Oct	22.3p	24.3p	26.5p	29.5p	35.5p	42.0p
Wool p per lb	22.2p	22.7p	23.0p	25.0p	26.0p	31.0p	38.0p
Hill Sheep Subsidy							
Higher rate Hill Sheep £ per head	£1.05 March £1.425 Oct	£1.50	£1.50	£1.50	£1.50*	£3.60	£3.60
Lower rate Upland Sheep £ per head	£0.525 March £0.90 Oct	£0.95	£0.95	£0.95	£0.95+	£2.85	£2.85
Winter Keep headage basis p per head	17.5p	17.5p	15.0p	25.0p	25.0p	incl. above	incl. above

*Rate increasing to £3.00 (headage of 25p included) w.e.f. 1.12.74

+Rate increasing to £2.25 (headage of 25p included) w.e.f. 1.12.74

Source: Annual Review of Agriculture

The effect of changes in the real value of the consumer's disposable income on purchases of meat and more especially of mutton and lamb, may be partly found in the estimates of income elasticities of demand for various foods made by the National Food Survey in the 1974 report on Household Food Consumption and Expenditure. Table XVI compares the main carcase meats and broiler chicken. It will be seen among the examples given that a 1 per cent increase in the consumer's disposable income (measured in real terms) would be likely to lead to an increase of 0.40 per cent in the expenditure on beef and an increase of 0.32 per cent in the quantity of beef purchased.

Table XVI

Estimates of Income Elasticities of Demand

	Income Elasticities of Expenditure	Income Elasticities of Quantity Purchased
Carcase meat		
Beef and veal	0.40	0.32
Mutton and lamb	0.23	0.15
Pork	0.38	0.23
Total carcase meat	0.35	0.25
Broiler chicken	0.37	0.31

Source: National Food Survey

From the examples above, the lowest response to changes in the consumer's income will be in the purchases of mutton and lamb. It will be noted that "Elasticity of expenditure is generally greater than that for quantity because as income rise not only is more food bought but there is a tendency to buy varieties of better quality or at least higher price". Doubtless, the converse is also true and if there is a sufficient fall in the real value of incomes due to the economic state of the country, inflation, unemployment, etc., then the consumption of mutton pies may increase at the expense of roast lamb.

With meats, of course, there is a choice. One type may be substituted for another. An earlier section showed that consumer preference has been for beef then chicken and pork and finally lamb. If price relationships between the different meats change then there may be a transfer of demand. Various estimates of these have been made. The National Food Survey in the 1974 report on Household Food Consumption and Expenditure estimates that over the period 1967-74 "the average purchases of mutton and lamb would be expected to decrease by 1.43 per cent for a 1 per cent increase in its average price (measured in real terms) but concurrently to increase by 0.44 per cent, 0.12 per cent and 0.25 per cent for each 1 per cent increase in the real price of beef and veal, pork and broiler chicken respectively". Table XVII gives the comparisons for these four main carcase meats.

Table XVII

Estimates of Price and Cross-Price Elasticities of Demand

	Elasticities with respect to the price of			
	Beef and veal	Mutton and lamb	Pork	Broiler chicken
Beef and veal	(-) 1.07	0.22	0.15	0.05
Mutton and lamb	0.44	(-) 1.43	0.12	0.25
Pork	0.48	0.18	(-) 1.35	(-) 0.12
Broiler chicken	0.20	0.53	(-) 0.16	(-) 1.30

Source: National Food Survey

According to the above estimates mutton and lamb have the highest price elasticity of demand (-) 1.43 and are therefore likely to be the most sensitive to price changes, purchases falling by a more than proportional amount when prices rise, but increasing by a more than proportional amount when prices fall. The principal competitive meat would appear to be broiler chicken.

In a memorandum from the New Zealand Meat Producers' Board to the House of Commons Select Committee on European Secondary Legislation etc.* on the question of an "interim sheepmeat regime" the following two sentences sum up the situation. "Consumer meat prices have a well defined traditional relationship in the United Kingdom. It is well known from past experience that if the price of lamb, whether it be domestically produced lamb or New Zealand lamb, moves any material margin away from these relationships there is an immediate consumer transference of demand."

When viewed from the consumer's angle it is the matter of price which gives cause for some concern. It is accepted that higher prices will have to be paid, but last autumn meat traders and butchers were complaining of shortages and a fall in the volume of sales due to the higher prices. Producers on the other hand so soon after the 1974 slump in prices will be reluctant to risk additional investment in increased production unless they can be sure of a firm market.

Last September, Mr James Stobo, the chairman of the Scottish Quality Beef and Lamb Association made the point that one factor preventing any expansion of lamb output in Scotland was the instability of the overall market. If access to the French market were to be made available on a regular basis, violently fluctuating prices could be avoided. It is perhaps worth noting that during the first week of September, 1976, the prices received per lb. estimated dead carcase weight in New Zealand, England and Wales and France, expressed in the sterling equivalent of the time, were 16.14p, 41.4p and 86.4p respectively - a very considerable price differential.

Perhaps regular access to the expanding continental market could be the key to sustained production. At present there is no common EEC policy for sheepmeat apart from the Common External Tariff applied to imports from third countries. For the United Kingdom this will be increased from the present 16 per cent to the full EEC charge of 20 per cent with effect from 1st July 1977.

*House of Commons Minutes of Evidence taken before the Select Committee on European Secondary Legislation, etc. HC53-IX 16/6/76 HMSO.

For trade in sheepmeat, in either direction, between the U.K. and the original "six", tariff rates are being phased out in five equal stages during the transitional period of the U.K.'s joining the EEC. The final stage will apply from 1st January 1977, so that from 1st January 1978 there should be no restraints on trade within the Community. Customs duties on intra-Community trade will also have been abolished.

France's national policy of protecting her domestic sheepmeat market by operating a threshold price mechanism which excludes imports from countries other than the original "six" whenever the French market price falls below 16.50 francs per kg. deadweight may have to be changed, as it will consititute a barrier to trade between countries within the EEC and could be judged,under the terms of the Treaty of Rome, to be illegal from 1st January 1978. This may presage the introduction of regulations for a common EEC policy for sheep.

The Republic of Ireland is pressing for a common policy for sheep, whereas, the British and French Governments are less enthusiastic and might prefer some interim arrangement. France, wishing to protect her own sheep farmers and to encourage production in her less favoured agricultural areas, fears that imports from Ireland and the UK would cause her domestic prices to fall. The British Government and the New Zealand producers fear that prices in the British market will be drawn upwards towards the French level leading to a further decrease in home demand. They would argue that the French market has to be considered in a rather different light from the British one. Lamb there may be considered almost as a luxury meat. There might also have to be a reciprocal "trade-off" on potatoes which would not be welcomed by either UK growers or the Government.

Our own lamb producers would see an unrestricted market on the continent as a profitable outlet for trade and a worthwhile earner of foreign currency and no consumer here would be against this viewpoint provided that the home market receives sufficient supplies. If New Zealand's lamb production remains more or less stable and if the UK continues to receive a diminishing share of New Zealand's exports then it would appear that our sheep farmers might be hard put to satisfy even a reduced home demand. Perhaps Ireland might then be encouraged to increase production and compete in the British home market. Again it is clear that France is making efforts to attain self-sufficiency and with a much smaller demand to satisfy may come close to achieving this. The French market may be marginal to our much larger home market, nevertheless, if and when restrictions are lifted, our efficient producers of quality fat lamb having established regular outlets there could maintain their share of the French market.

It would seem then, given a measure of stability, that the Scottish sheep industry may have fewer problems than other sectors of the livestock industry.

APPENDIX

Appendix Table I

April/March years — U.K. Meat Supplies — '000 tonnes

	Average of 1965/66-1967/68	1972/73	1973/74	1974/75	1975/76	1976/77 (forecast)	
						'000 tonnes	Imperial unit ('000 tons)
Beef and veal							
Production	922	919	930	1,165	1,185	1,038	1,022
Imports (b):							
from the Eight (c)	87	81	91	234	182	127	125
from third countries	236	282	207	59	48	63	62
Exports (live and meat):							
to the Eight	63	99	94	83	148	106	104
to third countries	2	6	6	2	4	3	3
Supplies to the Channel Islands	2	4	4	4	5	4	4
Total new supply	1,178	1,173	1,124	1,369	1,258	1,115	1,097
Production as % of total new supply	78%	78%	83%	85%	94%	93%	93%
Mutton and lamb							
Production	261	226	245	252	265	252	248
Imports:							
from the Eight (c)	11	4	2	1	2	2	2
from third countries	328	312	236	200	254	233	229
Exports (live and meat):							
to the Eight	9	24	27	30	35	41	40
to third countries	1	2	2	2	2	3	3
Supplies to the Channel Islands	...	1	1	2	1	1	1
Total new supply	590	515	454	420	482	442	435
Production as % of total new supply	44%	44%	54%	60%	55%	57%	57%

(a) Does not include meat offals or trade in preserved or manufactured meat products (e.g. canned meat).

(b) Boneless beef and veal have been converted to bone-in weights, in order to bring imports into line with the home production figures.

(c) Includes meat from animals imported fat from the Irish Republic.

Source: Annual Review of Agriculture 1977

Appendix Table I (cont)

April/March years — U.K. Meat Supplies — '000 tonnes

	Average of 1965/66-1967/68	1972/73	1973/74	1974/75	1975/76	1976/77 (forecast)	
						'000 tonnes	Imperial unit ('000 tons)
Pork							
Production	602	658	700	667	554	588	579
Imports:							
from the Eight (c)	8	27	11	7	13	7	7
from third countries	6	18	4	...	2	1	1
Exports (live and meat):							
to the Eight	8	6	19	20	7	17	17
to third countries	3	1	2	...	...	1	1
Supplies to the Channel Islands	1	1	1	3	1	2	2
Total new supply	604	695	694	652	561	576	567
Production as % of total new supply	100%	95%	101%	102%	99%	102%	102%
Bacon and ham							
Production	217	267	251	235	210	223	219
Imports:							
from the Eight	338	294	273	262	250	233	229
from third countries	69	48	36	20	21	20	20
Exports	1	2	1	2	1	1	1
Supplies to the Channel Islands	1	1	1	2	1	1	1
Total new supply	622	606	559	512	479	474	467
Production as % of total new supply	35%	44%	45%	46%	44%	47%	47%

(a) Does not include meat offals or trade in preserved or manufactured meat products (e.g. canned meat).

(b) Boneless beef and veal have been converted to bone-in weights, in order to bring imports into line with the home production figures.

(c) Includes meat from animals imported fat from the Irish Republic.

Source: Annual Review of Agriculture 1977

Appendix Table I (cont)

April/March years — U.K. Meat Supplies — '000 tonnes

	Average of 1965/66-1967/68	1972/73	1973/74	1974/75	1975/76	1976/77 (forecast)	
						'000 tonnes	Imperial unit ('000 tons)
Poultrymeat							
Production	444	657	665	622	630	675	665
Imports:							
from the Eight	10	2	6	7	7	4	4
from third countries	...	10	2	...	2	1	1
Exports	...	1	3	2	3	34	34
Supplies to the Channel Islands	1	2	2	3	3	3	3
Total new supply	453	665	668	624	633	643	633
Production as % of total new supply	98%	99%	99%	99%	99%	105%	105%
Total meat supplies							
Production	2,446	2,727	2,791	2,942	2,844	2,776	2,733
Imports (b):							
from the Eight(c)	454	407	386	512	454	373	367
from third countries	638	670	484	279	327	318	313
Exports (live and meat)	87	140	153	142	200	206	203
Supplies to the Channel Islands	5	9	8	13	11	11	11
Total new supply	3,446	3,654	3,499	3,578	3,414	3,250	3,199
Production as % of total new supply	71%	75%	80%	82%	83%	85%	85%

(a) Does not include meat offals or trade in preserved or manufactured meat products (e.g. canned meat).

(b) Boneless beef and veal have been converted to bone-in weights, in order to bring imports into line with the home production figures.

(c) Includes meat from animals imported fat from the Irish Republic.

Source: Annual Review of Agriculture 1977

Appendix Table II

United Kingdom

Estimated Meat Supplies per Head of Population

(lb. per head per annum)

	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974 revised	1975 prov.
Beef - bone in	44.2	39.4	41.4	45.2	42.7	42.7	41.6	40.9	36.4	32.7	43.3	45.8
Beef - bone out (expressed as bone in equiv)	4.2	6.4	5.2	3.5	3.4	5.7	7.3	6.7	9.6	10.0	6.0	5.1
Mutton and lamb	23.7	23.1	23.5	23.8	23.3	21.7	21.2	22.1	20.4	18.2	16.9	18.4
Pork	22.8	25.7	24.5	22.6	23.4	24.6	24.4	26.0	27.2	26.7	26.4	22.6
Offal	9.8	9.7	9.8	10.0	10.1	8.2	7.7	7.8	8.0	7.6	7.5	8.7
Imported canned meats	7.8	6.9	7.1	8.0	7.9	7.0	7.4	7.6	7.8	7.7	6.9	6.9
Bacon and ham	25.3	25.9	25.1	24.6	25.3	25.1	25.2	26.2	24.7	22.3	20.9	19.2
Poultry	15.8	16.7	17.8	18.8	21.3	22.3	23.6	23.5	26.5	25.9	25.6	21.2

Source: MAFF and Annual Abstract of Statistics

Appendix Table III

(i) Consumers' Expenditure on Food and Meat and Bacon in the United Kingdom at 1970 Prices (Seasonally adjusted)

		1966/ 1971 Annual Average	1972	1973	1974	1975
Total Consumers' Expenditure:	£ million	30,725	34,344	35,894	35,521	35,413
	Index	100.0	111.8	116.8	115.6	115.3
Of which spent on Food	£ million	6,275	6,320	6,397	6,431	6,418
	Index	100.0	100.7	101.9	102.5	102.3
	% of TCE	20.4	18.4	17.8	18.1	18.1
Of which spent on Meat and Bacon:	£ million	1,754	1,756	1,676	1,713	1,744
	Index	100.0	100.1	95.6	97.7	99.4
	% of TCE	5.7	5.1	4.7	4.8	4.9
	% of Total Food	28.0	27.8	26.2	26.6	27.2

(ii) Consumers' Expenditure on Food and Meat and Bacon in the United Kingdom at Current Prices

		1966/ 1971 Annual Average	1972	1973	1974	1975
Total Consumers' Expenditure	£ million	28,778	39,674	45,085	51,507	62,649
	Index	100.0	137.9	156.7	179.0	217.7
Of which spent on Food:	£ million	5,954	7,434	8,440	9,869	12,092
	Index	100.0	124.9	141.8	165.8	203.1
	% of TCE	20.7	18.7	18.7	19.2	19.3
Of which spent on Meat and Bacon:	£ million	1,663	2,103	2,543	2,910	3,379
	Index	100.0	126.5	152.9	175.0	203.2
	% of TCE	5.8	5.3	5.6	5.7	5.4
	% of Total Food	27.9	28.3	30.1	29.5	27.9

Source: Central Statistical Office, National Institute of Economic and Social Research and National Food Survey

Appendix Table IV

Proportion of Consumers' Expenditure Spent on Meat and Other Protein Foods, at Current Prices

		1966/ 1971 Annual Average	1972	1973	1974	1975
Beef & Veal	% of TCE	1.5	1.3	1.4	1.5	1.5
	Total Food	7.3	7.1	7.3	7.8	7.7
	Total Meat	26.2	25.0	24.4	26.5	27.6
Mutton & Lamb	% of TCE	0.8	0.7	0.7	0.7	0.6
	Total Food	3.8	3.7	3.7	3.4	3.1
	Total Meat	13.6	13.1	12.4	11.6	11.1
Pork	% of TCE	0.4	0.5	0.5	0.5	0.4
	Total Food	2.1	2.5	2.7	2.7	2.3
	Total Meat	7.6	8.9	9.0	9.0	8.1
Poultry	% of TCE	0.5	0.5	0.6	0.5	0.6
	Total Food	2.4	2.7	3.2	2.7	2.9
	Total Meat	8.7	9.4	10.5	9.1	10.4
Bacon & Ham	% of TCE	1.1	0.9	1.0	1.0	1.0
	Total Food	5.2	5.0	5.4	5.4	5.0
	Total Meat	18.6	17.6	18.1	18.3	17.8
Offals	% of TCE	0.2	0.2	0.2	0.2	0.1
	Total Food	0.9	0.8	0.9	0.8	0.8
	Total Meat	3.2	2.9	2.9	2.7	2.7
Other Meat and Meat Products	% of TCE	1.3	1.2	1.3	1.3	1.2
	Total Food	6.2	6.5	6.9	6.8	6.2
	Total Meat	22.1	23.1	22.8	23.0	22.3
TOTAL MEAT AND BACON	% of TCE	5.8	5.3	5.6	5.7	5.4
	Total Food	27.9	28.3	30.1	29.5	27.9
	Total Meat	100.0	100.0	100.0	100.0	100.0

Source: Based on data from Central Statistical Office and National Food Survey