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THE DEVELOPMENT OF THE AUSTRALIAN WOOL MARKET, 1840-1900.

by

A.Barnard.

A Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Philosophy in The Australian National University. This Thesis is the original work of the candidate.

A Barnard 2nd October, 1956.

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Abbreviations

A.A.Co.: Australian Agricultural Company.

A.I.B.R.: The Australasian Insurance and Banking Record and Statistical Register.

A.M.L.&F.: Australian Mortgage Land and Finance Co. Ltd. (from 1910, Australian Mercantile Land and Finance Co. Ltd.).

J.R.A.H.S.: Journal of the Royal Australian Historical Society.

N.S.W. V&P.: Votes and Proceedings of the Legislative Assembly of New South Wales.

N.Z.L. & M.A.: New Zealand Loan and Mercantile Agency Co. Ltd.

Proc.Vic.Leg.Ass.: Proceedings of the Legislative Assembly of Victoria.

S.A.P.P.: South Australian Parliamentary Papers.

The Sales of Australian Wools in London...: The Joint Sub-committees of Enquiry appointed by meetings in New South Wales, Victoria and South Australia, Report on the Sales of Australian Wools in London.... (London 1870).

Y.B.E.S.R.: Yorkshire Bulletin of Economic and Social Research.

W. & P.: T.A. Coghlan, The Wealth and Progress of New South Wales, Sydney, annually 1887-1905.

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Introduction

The growth of the pastoral industry is usually accepted as a major feature in Australian history. Socially and politically the importance of the industry is, perhaps, clear enough: wool was probably the main influence which, in the eighteen-twenties and 'thirties, led to the break-down of the penal system and the triumph of free Australian enterprise; wool was an important source of political influence throughout the nineteenth century and the focus for a large part of government legislation and administrative action; wool was the chief means of the successful spread of colonial settlement and the pattern of that settlement, based on a highly profitable pastoral industry, had a basic influence on the character of Australian urban development, communication systems and service occupations.

The contribution of the pastoral industry to Australian economic development can too easily be misunderstood. Wool did not produce an overwhelming part of Australia's national income and provided, probably, an even smaller part of Australian employment. Directly, it produced a substantial demand for investible funds and was an important avenue for private capital formation. Its outstanding place in the Australian economy of the nineteenth century arose from its dominating position as an export commodity. The growth of a

large, highly profitable export industry encouraged a related growth of services, not only in the form of transport and personal services but also of highly specialised banking and marketing agencies.

The fact that by the extensive utilisation of cheap land resources in a new country it met some of the growing raw material requirements of the European wool textile industries forms a large part of the explanation both of its profitability and its magnitude in the colonies in the nineteenth century. And it was on these two characteristics that its importance in the economy largely turned. Yet we know virtually nothing of Australian wool in an international context, of the export market and how it worked. The growth of the industry coincided with a general re-location of wool production from the northern to the southern hemisphere. The second half of the nineteenth century also witnessed the expansion of wool textile production in continental European countries which sought their raw materials from South America, South Africa, New Zealand and Australia. We know that within this changing world structure Australia first became the leading supplier of wool to the British industry and later the world's leading producer of fine merino wool. Among other things, we are ignorant of such basic matters as the relations between the growing outputs of these other new countries and that of Australia; between the development of these new textile industries and the colonial wool producer; and even of the identity of the consumers of Australian wool.

As a step in the investigation of these problems this study is essentially concerned with the institutions of this export market - with the way in which the Australian producer was linked with the European consumer.

How the connection was effected depended mainly on the point at which the grower disposed of his interest in the produce. Throughout the greater part of the nineteenth century this point was London, where the wool was sold by public auction to textile consumers and distributive dealers. Consequently there arose a set of agents whose task was to arrange the transport and sale of the wool on the growers' behalf. From this large and heterogeneous group emerged a relatively small number of specialised agencies, with whom were specifically associated some of the services whose performance constitutes the market. These specialist agents also assumed other functions - particularly that of financing the production as well as the export of wool - and behaved in certain ways which tended to introduce rigidities into the marketing structure.

In the last third of the century, however, the location of the market was changed from London to centres in the colonies. This, it will be argued, was part of a world-wide movement in wool trading which was intimately associated with changes in the structure of the producing and consuming industries. It was also dependent on the prior development of a set of institutions in the colonies which to a certain extent ran parallel with, and competed with, those which served the London sales system. Their original function was to

provide a means of permitting growers to transfer to middlemen the responsibility of exporting their produce; it became one of bringing the producers and consuming and distributive trades together in the colonies. This change altered the whole technique of wool exporting but it could not become wholly effective until the rigidities of the marketing agencies centred on London were either overcome or transformed into similar rigidities centred on the colonial markets.

A consideration of these matters forms the substance of Part II of this thesis. It is evident that the whole problem might be approached from two points of view. A study of the institutions of the market might be conceived of, firstly, primarily as the story of the men and concerns who exploited their command of the necessary lines of communication between the producers and consumers by exacting tribute from the lucrative Australian wool industry. This would concentrate attention on the rigidities of the market structure and on the elements of "finance capitalism" which it might be said to contain. Alternatively, it might be conceived, as it is here, in terms of the men, the institutions and the relations which serviced the producing and consuming industries and which contributed to the smoothness and the rapidity of the growth of each. In this story market rigidities obviously have their place, but the basic interest lies in the connection which was effected rather than in the narrow relations between producers or consumers and marketing functionaries.

It is partly for that reason that Part I, in which the market to be examined is defined by identifying the produc the producers and the consumers, is also designed to provide a background sketch of the producing and consuming industries. It outlines the expansion of Australian output, the conditions under which it was produced and the uses to which it was put. In addition, attention is drawn to certain features in the structure of the wool growing industry, in the nature of the consumers and in the organisation of the wool textile industrie of Britain and Europe which were important in creating or encouraging the establishment of behaviour trends in the market participants and of the channels and methods of wool marketing.

Finally, in Part III, the outcome of the operation of the market is considered briefly. Since the function of the market was, in each year, to dispose of the current clip, the main interest attaches to the prices reached to clear this stock. We have discussed the main features of the prices realised, both as over-all movements and as patterns of relative prices. The market also realised another quantitative variable, marketing costs. These, in conjunction with realised prices, were important factors in determining the growers' net returns. Although we have attempted to give some guide to these costs any effective analysis must await the completion of a great deal more statistical work.

I. THE EXTENT OF THE MARKET.

Chapter 1.

The Production of Australian Wool.

1. The Product.

Wool is not a homogeneous commodity. Nor was "Australian wool", at any one time or over the years, homogeneous.

The variable qualities of wool are the length and soundness of the staple, the fineness of the fibre, its colour, softness, crimp and elasticity. Combined in different ways, different values of these characteristics suit wool to quite different manufacturing purposes and processes. The way in which they are combined, and the variations between different types of wool are most marked in sheep of different breeds - between, for example, an Australian merino and an English Leicester. But even within one broad breed of sheep they are still appreciable.

"Australian wool" is, in fact, simply a short-hand way of referring to a large number of types of wool whose composition changed during the nineteenth century. Different sheep were bred in different regions; different strains were introduced from other countries; and the wool was marketed in different forms - washed, scoured or greasy - which, from the point of view of the market, created a further series of wool types.

Australian production has been based on the merino sheep. The nature of this breed has changed very widely. The original Spanish merino blood introduced and changed by Macarthur, Marsden, Cox and other pioneers was modified by the addition of British merino strains from Thomas Henty's West Tarring flock. Further modifications resulted from the Saxon merinos imported into Van Dieman's Land and Port Phillip where they formed the basis of famous flocks like those at Ercildoune and Belle Vue. Later, after the 'fifties, merinos from the Rambouillet stud in France were imported in considerable numbers. Mainly through the influence of the Peppin studs at Wanganella and Boonoke this strain had a far-reaching effect on the future characteristics of the Australian merino. In the 'eighties American Vermont merinos were imported and for a short while provided the main emphasis in breeding.

All these breeds were originally Spanish stock which had been imported into Saxony, England, France and America in the last half of the eighteenth century. The differences in climate, pastures and handling had created differences in the wool they bore. Thus the infusion of Saxon stock into the Australian flocks increased the fineness, density and elasticity of the wool, that of the Rambouillet the length, and the Vermont the quantity of wool carried.

Broadly, the effect of the introduction of these strains meant that the Australian merino could produce wool for either of the two main wool textile processes. The short fine wool of the Spanish, Saxon and British breeds was

eminently suited for carding by the woollen industry, while the longer fibres of the Rambouillet influenced Wanganella sheep, which were well adapted for the Riverina district, could be utilised for combing by the worsted branch[1]. Indeed

Table I.

Breeds of sheep in New South Wales, 1886 and 1900 [2].

Breed	Type	1886	1900
Merino	Combing	27,915,847	27,158,422
	Clothing	10,151,627	9,540,734
	Total	38,067,474	36,699,156
Long-woolled sheep		378,383	1,076,284
Cross-bred sheep		723,447	2,245,066
Total		39,169,304	40,020,506

the introduction of the Rambouillet coincided with, and was stimulated by, an acute shortage of long wool suitable for combing by the English industry during the 'sixties and later suited the increased demand for soft combing wool[3]. In New South Wales, as Table I shows, nearly three-quarters of the

(1) Wool used in worsted processes we call "combing" wool; that used in woollen processes "clothing" or "carding" wool. The crudest distinction between them is that the former are long and the latter short. See below, chapter 2, p. 37, n. 1, for an account of the main differences between worsted and woollen production.

(2) Source: T.A. Coghlan, The Wealth and Progress of New South Wales 1886-7 (Sydney, 1887) pp.323-4, and The Wealth and Progress of New South Wales, 1900-01 (Sydney, 1902) p.583. (Appearing annually, this series of publications formed the official year book of N.S.W. from 1886 to 1904. It will hence-forth be referred to only as W. & P. with the appropriate year.)

(3) See below, chapter 2, pp. 45-6.

merino flocks towards the end of the century were of strains which produced wool for the worsted industry while the remainder was more suited for the woollen.

This division of sheep into different breeds and types, however, is not sufficient to enable us to determine accurately the proportions of wool produced for different manufacturing purposes, for the fleece of any one sheep contained different types of wool. Table II illustrates the

Table II

The classing of selected portions of the Warrah Station clip, 1881(1).

Group of sheep	Average yield per sheep							
	Combing wool		Clothing wool		Pieces(a)		Total	
	lbs	%	lbs	%	lbs	%	lbs	%
Shorn Greasy:								
Breeding ewes	2.74	46.1	0.97	16.3	2.24	37.6	5.95	100
Rams	6.15	63.0	-	-	3.61	37.0	9.76	100
Ewe Hoggets	3.87	59.2	0.04	0.6	2.63	40.2	6.54	100
Stud ewes	5.03	61.6	-	-	3.13	38.4	8.16	100
Shorn Washed:								
3 year wethers	1.78	52.5	0.23	6.8	1.38	40.7	3.39	100
Wether hoggets	1.32	43.0	0.21	6.8	1.54	50.2	3.07	100
Ewe Hoggets	1.23	45.5	0.14	5.2	1.33	49.3	2.70	100
Breeding ewes	0.76	27.5	0.65	23.5	1.35	48.9	2.76	100
Purchased sheep	0.53	20.8	0.76	29.8	1.26	49.4	2.55	100

(a) "Pieces" here include "broken" and "skirting" wool in addition to the wool more usually defined as "pieces".

types of wool shorn from selected groups of sheep run on Warrah

(1) Australian Agricultural Company, Miscellaneous Warrah Papers, "Average Composition of Warrah Sheep, 1881" (from the M.S. collection of Australian Agricultural Company papers at The Australian National University). Cf. also the composition of the 1888 clip from the Boonoke flock, summarised in United States of America Department of State, Bureau of Statistics (Special Consular Reports), Australasian Sheep and Wool (Washington, 1892) p.27.

Station by the Australian Agricultural Company. It will be seen that, although the flock was cultivated primarily for combing wool the proportion of explicitly clothing wool from one sheep could rise as high as almost 30% while if the "pieces", generally used in the woollen industry, are included it rose as high as 79%. The influence of breeding can also be readily discerned in the comparative yield of combing wool from the highly selective stud stock - the rams and stud ewes - and from the purchased stock. Moreover, the proportion of each variety of wool shorn from a sheep varied with the season. The portion of the fibre which grew while stock were underfed during drought was appreciably more tender than the rest and formed a fault at which point it broke during combing. This meant that tender wool otherwise suited to combing could only be used in woollen processes requiring, on the whole, shorter fibres.

In addition to the different types of wool which could be produced by breeding and by seasonal accidents, regional differences in climate and soil produced their own particular types of wool. The salt pastures and limestone soil of the Liverpool Plains, for example, were not suited to the growing of long silky combing wool[1]; the Riverina, partly because it suited that breed of sheep, and partly because of the soil and climate there, grew combing wool of excellent quality - long, bloomy, deeply grown and compact in the staple. The wool from the western district of Victoria and the

(1) Australian Agricultural Company, Despatches from London, No. 194, 26/8/1864.

south-east of South Australia gained wide fame for their excellence and their colour. By contrast, the Lower Darling area produced fine to medium quality wools which were generally soft and which, like those from other regions, carried the distinctively coloured dust of the district. This dust content itself played a part in product differentiation, for that from some regions was more difficult to remove and from others hid wool which was very white when scoured.

There were, then, many varieties of Australian wool which suited different manufacturing needs and which were therefore subject to differing conditions of demand.

One of the more significant trends in wool growing in the colonies in the last forty years of the last century was the shift from the production of clothing wool for the woollen industry to combing wool for the worsted. It is not possible to measure this change in so far as it was effected by selective breeding of merino sheep. By the 'eighties, when appropriate statistics first became available, the change had already been made. Three-quarters of the New South Wales merino flocks in 1886 grew combing wool and the proportion remained substantially the same in 1900 (Table II). On the other hand the number of long-woolled sheep and cross-breds increased by ¾ and 1½ million, a trebling and doubling, respectively. Their combined proportion of the New South Wales flocks rose from 2.7% to 8.2%. The wool from these sheep was suited to worsted production, and the growing popularity of these breeds was another indication of the changing composition

of Australian wool growing. This particular change had been much greater, and apparent for much longer, in Victoria and Tasmania than it was in New South Wales. That colony, in fact, remained a predominantly merino raising area while by 1908 only a third of the Victorian flocks were still pure merino. Unfortunately there are no adequate stock statistics indicating the breeds of sheep raised in colonies other than New South Wales. One indication of the growing production is found, however, in the United Kingdom imports of cross-bred wools from

Table III.

Estimated United Kingdom imports of cross-bred wool from Australia and New Zealand, 1871-82(1).

Year	Imports
	bales
1871	25,000
1872	30,610
1881	176,000
1882	185,000

Australasia, detailed in Table III. Although a considerable proportion of the increase of 150,000 bales in a decade was attributable to New Zealand whose production came to concentrate on this type, the order of magnitude of the expansion of Australian cross-bred production is evident.

The reasons for the change were complex, but three

(1) Source: Trade estimates presented in the Australasian Mortgage & Agency Co. Ltd.'s market report in The Australasian Trade Review & Manufacturer's Journal (Melbourne, monthly) 15/3/1882 and that of R. Goldsbrough & Co. in The Journal of Commerce of Victoria and Melbourne Prices Current (Melbourne, fortnightly) 14/2/1883.

major ones stand out. On the one hand it was mainly one which affected the southern colonies, where the wetter, colder climates suited that type of sheep better than in New South Wales. In those colonies it came to be associated with mixed farming. The expansion of agriculture, therefore, provided a stimulus to the production of cross-bred wools particularly. At the same time the newer breeds, particularly the cross-breeds, were coarser and larger than merinos. This meant not only that they produced longer coarser wool (suited to combing) but that their carcases were better adapted for meat production. Consequently the rising demand for meat for home consumption and, with the development of refrigerated transport, for export also acted to extend their popularity. The main influence, however, was the rising industrial demand for wool of the type represented by the various cross-bred wools. This was reflected in the growing importance of cross-bred wool in the United Kingdom imports. Between 1889 and 1899 the proportion of cross-bred to merino wool imported from the colonies and South America rose from 17% to 45%(1).

In the predominantly merino-producing areas of Australia this demand resulted in the evolution of another breed, known as the comeback - a refined cross between the merino and long-woolled breeds - which throve in conditions which also suited merinos but not the normal crossbred.

All these varieties of wool were further subdivided according to the state in which they were marketed. Wool

(1) Bradford Observer, 31/12/1900.

buyers differentiated between wools on the basis of their cleanliness and of the methods used to clean them. As between wools of the same quality the different scales of values established for washed, scoured and greasy (unwashed) types ideally reflected only the varying quantities of foreign substances like grease, dirt, grass-seeds etc. which they contained, and the relations between them were theoretically determine by the technical efficiency of the cleaning processes. In fact, quite independent factors caused those relations to vary during the second half of the century. It is this which gives significance to the product differentiation which cleaning implied.

From the 'sixties an increasing proportion of Australian wool was sold in the grease. Greasy wool had been exported since the 'thirties and 'forties and there had been periods when special factors caused sharp but short-lived increases in the proportion of greasy to scoured and washed wool(1). From 1873, the first year in which a separation between them was made in the statistics of New South Wales exports, to 1900 the proportion of the clip exported in the grease rose from 18% to 71%(2). This phenomenon was general, and appears in the statistics of the other colonies from the time the separation is first made(3). There are no reliable

(1) Examples are provided by the early 'fifties when the shortage of labour led to an increase in shearing in the grease as a labour-saving device and by other years in which the drying up of creeks and dams on pastoral properties during droughts prevented graziers washing in the customary fashion.

(2) New South Wales Statistical Register.

(3) This occurred in Victoria in 1873, in South Australia in 1876, in Tasmania in 1876 , and in Queensland in 1866.

estimates of the relative quantities before those dates, but the high proportion - 49% - of the Australasian clip brought to market in the grease in 1875[1] indicates that the change had been begun some time earlier. The reasons for this trend may be sought in three developments: the reduction of inland carriage rates as a result of rail and river transport meant that growers could more easily afford to freight the heavier product; the growing practice of selling in the colonies rather than in England meant that the incentive to scour in order to reduce the ocean freight charges was progressively reduced; and the narrowing differential, in money terms, between scoured and greasy wool prices[2] was not matched by a comparable fall in scouring costs.

This then is the commodity with the market for which this study is concerned. It was in fact a group of products which changed over time. In the 'forties it consisted primarily of clothing merino wool which was washed or scoured. This was supplemented and later overshadowed by merino combing wool, obtained by introducing foreign merino strains into the Australian flocks. Towards the end of the century long-woolled sheep, cross-breds and comebacks began to increase their relative numbers and to add increasing quantities of their distinctive wool to Australian output. There was, finally,

(1) A. Sauerbeck, The Production and Consumption of Wool (London, 1873), p.8.

(2) The prices of scoured and greasy wools fell by similar proportions despite the divergent output movements. This was due to a growing consumer preference for greasy. Cf. J. Leach, Australia v. London as the World's Wool Depot (Sydney, 1894), passim.

an overall change from scoured and washed to greasy wool.

2. The growth of production and the location of the industry.

Although we are dealing primarily with marketing institutions it will be convenient briefly to discuss the movements in output and to consider some of the conditions under which production was carried on. This will serve as a background to our main theme. It should be emphasised that this is merely a sketch drawn primarily from secondary sources and is essentially introductory to the main thesis. It is proposed then to devote the remainder of this chapter to some of the salient features of the progress of wool-growing in Australia, to the difficulties facing individual producers, to the obstacles to the expansion of the industry as a whole and to the ways in which they were overcome. Attention will be concentrated on the measure of production, the location of sheep-raising, on the technology which it employed and on the structure of the industry.

During the nineteenth century Australia became the world's largest exporter of merino wool and a dominant force in the world wool markets. Expressed in national terms Australian production rose continuously, though not evenly, in each of the quinquennial periods from 1840 to 1894, growing from c.12 m. to 596 m. lbs. The expansion which had gathered pace during the "squatting" rush of the 'thirties was slowed down, but not halted, during the depression of the 'forties. From those depression years emerged measures which eased two

of the industry's basic difficulties - the Liens on Wool and Mortgages on Stock Acts of 1843 which made sheep and the growing wool legal security for loans, and the Order in Council of 1847 which confirmed the squatters in their occupation of lands beyond the authorised limits of settlement and gave them some right to their improvements[1]. The economy was hardly out of the depression when the discovery of gold led to a dislocation of pastoral production. The gold discoveries drew labour from the industry and meant an increase in the costs of provisions, while to a certain extent the demand for meat reduced wool output. For a time the relative attractiveness of wool growing as a field of investment declined. Nevertheless the industry continued to expand. In the early 'sixties the renewed availability of labour and capital, together with an export price for wool which was maintained while domestic and import prices fell, encouraged a boom in new pastoral enterprises. Despite a fall in wool prices in the second half of the decade, which reacted unfavourably on the establishment of new stations, output bounded upwards as those formed during the boom became fully productive and as the capital improvements executed then became fully effective. The severe fall in prices at the end

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(1) The Liens on Wool and Mortgages on Stock Act was originally accepted by the Imperial Government as an emergency measure, and it was renewed in succeeding years until 1850, when its permanence was accepted, only with difficulty. The 1847 Order replaced squatting licences by pastoral leases, initially for a period of fourteen years in the "unsettled" areas, which carried pre emptive rights.

Table IV.

Average quinquennial production of wool in the Australian colonies, as exported, 1840/4-1895/9[1].

Period	New South Wales	Victoria	South Australia	Queensland	Western Australia	Tasmania	Total
	lb. '000	lb. '000	lb. '000	lb. '000	lb. '000	lb. '000	lb. '000
1840/4	7,691	2,727	n.a.	n.a.	-	n.a.	n.a.
1845/9	11,801	9,710	n.a.	n.a.	-	n.a.	n.a.
1850/4	15,184	19,665	n.a.	n.a.	-	n.a.	n.a.
1855/9	16,892	20,977	n.a.	n.a.	n.a.	n.a.	n.a.
1860/4	18,728	27,730	13,956	8.948	772	4,704	74,838
1865/9	33,108	49,099	22,256	29,056	1,471	5,224	140,214
1870/4	62,764	60,263	31,886	35,822	1,986	4,939	196,867
1875/9	129,502	77,155	49,235	33,822	3,155	7,192	300,061
1880/4	186,406	75,477	49,944	40,411	4,281	8,303	364,822
1885/9	243,175	66,162	49,377	57,293	7,152	7,382	430,541
1890/4	348,588	77,285	51,628	100,265	9,337	8,941	596,044
1895/9	302,724	81,060	46,221	106,272	11,052	8,122	555,451

(1) Sources: 1840/4-1855/9, Statistical Registers of the two colonies. Wool exports are assumed to equal wool production. 1860/4-1895/9, Commonwealth of Australia, Department of Commerce, Bureau of Agricultural Economics, Statistical Handbook of the Sheep and Wool Industry (Canberra, 1949), Table 26, p.21.
Although the Statistical Handbook heads this table "Production of Greasy Wool", in fact all the figures are simple additions of the weights recorded at the Customs Houses. Greasy, scoured and washed wool are all included. Until separate categories were provided for the different types in the 'seventies there is no way of distinguishing between them or of calculating the greasy equivalents of scoured and washed wool exports. It might be argued that the crude methods employed up to the 'sixties and perhaps later means that there was little difference between the weight of washed and greasy wool, and that as we can convert to greasy equivalents after separate statistics are provided we could construct a table of greasy wool exports which would be substantially accurate, for all periods with the possible exception of the 'sixties. But until far more is known of the techniques of wool washing and the actual yield of washed and scoured wool before the 'seventies this remains mere surmise. The table presented in the text is undoubtedly unsatisfactory, and it must be borne in mind that some of the increased production it shows is illusory being simply the extra weight due to the change from scoured to greasy production. It is, nevertheless, the only direct guide to output that we have.

of the 'sixties was reflected by a much slower expansion of production in the early 'seventies, but the rate of growth once again became high during the second half of the decade. Throughout the 'eighties the expansion continued steadily, although at a reduced rate. The rise in the rate of expansion in the first half of the 'nineties was followed by an actual reduction in output as drought and a readjustment of the industry to the changed relations between wool and other prices and to the introduction of a real alternative to wool productio in the form of frozen meat for export took their effect. Subject to the qualification that some of the increase is merely a shift from scoured to greasy production, the overall annual average rate of growth throughout the whole period was 10%; from 1840 to 1892, the year of peak production, it was 14%.

These global figures tend to conceal very different rates of growth in the different colonies. Victorian and South Australian production was declining through the 'eighties just as Queensland's expansion gathered speed; and the increas in Tasmanian production was slow and much more unstable than that of the other colonies. The high rate of growth in the late 'seventies and early 'eighties was almost entirely a product of the expansion of the industry in N.S.W., and the magnitude of the rise in output in 1890/4 of developments in that colony and Queensland. These differences are even more obvious when one studies the growth of the sheep flocks presented in Table V instead of statistics of wool output. They form a necessary supplement to the production statistics as

an indication of the growth of the industry, even when quinquennial averages are used, because they are free from the

Table V.

Quinquennial average of sheep populations in the Australian colonies, 1840/4-1895/9 (1).

Period	New South Wales	Victoria (a)	South Australia	Queensland	Western Australia	Tasmania	Total (b)
	'000	'000	'000	'000	'000	'000	'000
1840/4	n.a.	n.a.	n.a.	n.a.	-	n.a.	n.a.
1845/9	5,661	3,880	733	n.a.	-	1,573	n.a.
1850/4	7,654	6,020	n.a.	n.a.	-	2,103	n.a.
1855/9	7,444	5,071	n.a.	n.a.	n.a.	1,704	n.a.
1860/4	6,788	6,861	3,459	4,687	313	1,714	23,822
1865/9	12,375	9,376	4,319	8,022	542	1,664	36,658
1870/4	18,388	10,777	5,090	7,341	699	1,456	43,751
1875/9	25,538	10,235	6,186	6,506	911	1,807	51,183
1880/4	35,536	10,436	6,591	9,618	1,324	1,811	65,332
1885/9	44,113	10,741	6,490	11,905	1,980	1,557	76,835
1890/4	57,971	12,973	7,097	19,658	2,105	1,638	101,505
1895/9	43,468	12,011	5,713	18,006	2,258	1,586	83,109

(a) Victorian figures are those as at 31st March; all others are as at 31st December in the previous year.
(b) The total includes Northern Territory flocks from 1880/4.

distorting effects of minor climatic variations (which often cause a difference in the yield of wool per sheep) and, though subject to their own errors of collection, are free of the complications arising from wool washing. To demonstrate these divergent rates of development between the different colonies, however, serves merely to underline the importance of the changing geographical distribution of wool production and to direct attention to divergent rates of growth of much smaller

(1) Source: Bureau of Agricultural Economics, Statistical Handbook, Table 1, p.1., and Statistical Registers of the colonies.

areas within colonial boundaries.

In the first instance, the expansion of the industry was accomplished by pushing out the geographical frontiers of grazing. Pastoral occupation followed the discovery of new pastures by official explorers, overlanders and the pastoral pioneers themselves. Increasing production in this way was obviously limited by, and at the same time aggravated, the two main problems of the pastoral industry: transport and drought. How these limitations were overcome to allow progressive extensions into previously sub-marginal regions will be considered more fully below (section 3). It is sufficient here merely to indicate some of the consequences.

Pastoral occupation went well ahead of organised transport and communication. The pioneers blazed the trails and established their stations; carriers, waggon tracks, roads and eventually railways followed them. Even by 1870 the railways of New South Wales terminated at Lithgow in the west, Goulburn in the South and Murrurundi in the north. By that time occupation of substantial areas west of the Bogan and Lachlan rivers was complete and a broad band of settlement existed along the Darling River. Settlement on this basis was possible, of course, only because wool was a commodity whose value was high compared with its weight. Yet carrying costs were high, and as settlement proceeded even further beyond the railheads the carriage of wool to the ports and of supplies and rations back to the stations became an increasingly important element of pastoral costs. There was obviously a

limit beyond which they became prohibitive. The occupation of some regions was, therefore, impossible until some provisions were made for transport. The clearing of the Murray, Murrumbidgee and Darling River systems for navigation in the 'fifties and 'sixties opened up large areas of New South Wales in this way.

The spread of pastoral occupation is a well known one. In New South Wales it moved from the nineteen counties to the Bathurst and Liverpool Plains, to the Monaro and Riverina, then westwards towards the Lachlan in the south and the Upper Darling in the north, finally filled out the Western District. In Victoria it first followed the northern rivers to the Murray and filled in the north-eastern corner, and then it spread into the fringe of the Mallee country. In South Australia and Queensland it followed a similar pattern, exploiting first the coastal and river areas and then moving to the drier north and west respectively. After 1860 this pattern of extension came increasingly to mean an expansion into areas of low rainfall and few natural permanent waters.

The sparse pastures and the scarcity of drinking water for stock which those characteristics implied seemed, at the time, to have been satisfactorily overcome by technological innovations. Nevertheless, even in those inland regions where pastoral occupation was firmly established, the incidence and severity of droughts was much higher than in areas closer to the coast and the mountains. Further, the large scale operations necessary for sheep-raising in low rainfall areas,

together with the ready growth of annual herbage plants immediately after rain, induced graziers to stock the land more heavily than the relatively sparser growth of drought-resistant shrub herbage warranted; stocking tended to be determined by the maximum, not the minimum, capacity of the land. This overstocking meant not merely temporary embarrassment in drought periods but also permanent deterioration of the vegetation and erosion of the surface soil. It was considerations of this nature, at least equally with the depredations of rabbits and other wild animals which made untenable the graziers' positions on stations north of Goyder's line in South Australia in the late 'sixties and west of the Darling in the 'nineties[1].

In other words, as the pastoral industry moved outwards to the semi-arid regions, transport became an increasingly heavy burden and the vulnerability of those regions to droughts and deterioration made production and income more unstable[2]. It was from these very regions, however, that a large part of increase in Australian production came before the end of the 'eighties.

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(1) In both these cases, of course, there was an aggravating interaction between changes in wool prices and the effects of overstocking. Either lower prices or diminished carrying capacity could have been borne, for a time at least, separately in combination they spelt disaster.

(2) The report of an overseer to his absentee employer sums up the devastation which drought could imply: "We eat, drink and sleep well, and play quoits, sheep being all dead. We have nothing else to do, and would rather not meet you in Sydney, till the rain comes." (quoted in the Australasian Insurance and Banking Record and Statistical Register (Melbourne, monthly), Vol. 8, p.179 (henceforth referred to as A.I.B.R.).

In this early occupation of the more favoured areas and the later dependence on semi-arid zones for subsequent expansion may be found part of the explanation of the differential rates of growth between the colonies noted above. The topography of Tasmania placed a natural limit to this expansion which was reached in the 'fifties. In Victoria, though grazing was later extended to the Mallee district(1), the process had been substantially completed by the 'sixties. By the mid-'sixties occupation had spread as far as Lake Eyre in South Australia. Disastrous droughts at the end of that decade forced it to retreat, and though the re-occupation of the area was complete by the 'nineties the process was so cautious and gradual that it cannot be considered an example of the dynamic extension of productive frontiers. In New South Wales, on the other hand, the late 'seventies and 'eighties saw the expansion of production into the back country on both sides of the Darling, while in Queensland the occupation of reasonably watered country was completed and then sheep-raising moved westward beyond the Warrego and beyond Longreach toward the South Australian border.

3. The Technology of Production.

Before the industry could be profitably and permanently extended to these semi-arid areas, measures were necessary to secure the survival of the stock. Drinking water was

(1) This story is admirably told in A.S. Kenyon, "The Story of the Mallee", Victorian Historial Magazine, Vol.IV, No. 1, 2, 3 and 4.

the main problem despite the relative abundance of some types of water-retaining vegetation. In country where the soil was largely sandy - where rivers petered out to a muddy end in the middle of a plain and then re-appeared some hundreds of miles away - and where the evaporation rate was high, artesian bores provided the only answer. After 1870 thousands were sunk by colonial governments and individual stockowners throughout the areas served by the Great Artesian and River Murray Artesian Basins. But the sparse growth of pastures made it necessary for graziers to develop new techniques of husbandry appropriate to light stocking. At the same time protection against rabbits and wild animals which threatened both the stock and their feed was needed. Fencing in huge paddocks reduced the depredations of the animals and made light stocking possible on an economic scale. The construction of vermin-proof fences, undertaken on a tremendous scale by graziers and colonial governments(1), together with appropriate legislation, represented the greatest though still unsuccessful attempt to eliminate rabbits, dingoes and kangaroos.

With the exception of artesian water supplies these techniques differed only in degree, however, from those which had been adopted previously, and were to find even wider application in the future, in the higher rainfall districts. There their importance lay not so much in ensuring survival

(1) At the end of 1900 it was estimated that some 18,000 miles of rabbit-proof fencing had been erected in N.S.W., of which 1,157 miles had been constructed by the State W. & P., 1900-01, p.612. This probably refers only to leasehold properties and should be multiplied two or three times for a full coverage. In Queensland the State constructed virtually all this type of fencing.

as in increasing productivity. Fencing had originally been introduced as a labour and cost saving device, and it was largely on those grounds that its popularity spread so rapidly in Victoria where the process of enclosing grazing lands was virtually completed during the 'sixties. In addition, however, it greatly increased the percentage of lambing, maintained the sheep and their wool in better condition and made heavier stocking of the pastures possible(1). It was partly for those latter reasons that in the late 'seventies and 'eighties most of the grazing land in New South Wales was fenced(2).

(1) Coghlan's classical statement of the advantages to be derived from fencing a sheep property into paddocks is worth repeating: "the country will carry one-third more sheep, the wool will be longer and sounder, and the fleece as a whole one-third better; the feed will be cleaner and less liable to grass-seed; the sheep will increase in size; they will live longer and continue longer profitable; they will be freer from foot-rot and other diseases; the expenses of working the station will be less than one-quarter of what it would be if the sheep were shepherded; and finally, the owner will be able to devote the principal part of his time to improving his sheep instead of spending it in attempting to manage a number of shepherds and hut-keepers" (W. & P. 1900-01, p.584.). One might add that some system of paddocking, and the separation of flocks, was essential to any attempt to improve sheep by selective breeding.

(2) As late as 1867 the policy of the Australian Agricultural Company was that while "the subdivision of the whole estate by wire fencing is the result that we have in view...the cost of it will be very heavy, and without experience of our own we should not be justified in recommending the shareholders to incur it. Our wish, therefore, is that you should proceed experimentally." (Australian Agricultural Company, Despatches from London, No. 236, 26/11/1867. The contrast between fence building in N.S.W. in the 'sixties and 'seventies is one of 50,000 miles and 750,000 miles completed respectively (N.G. Butlin, Private Capital Formation in Australia, Estimates 1861-1900, The Australian National University, Social Science Monographs No. 5 (Canberra, 1955), p.93.).

Similarly, even the early settlers had dammed creeks to provide permanent water. It was soon found the country without river frontages - the areas into which secondary waves of occupation were carried - needed excavated dams or artesian wells to increase the carrying capacity of the land to economic levels.

Other technological changes reducing costs[1] were, of course, most important especially as production moved into marginal areas. In the early days of the industry, for example, wool was sent from the runs to the coast wrapped as whole fleeces in sheets, in the English fashion. Sheets were soon replaced by bales, into which the fleeces, and later the divided and classed wool, were squeezed with a hand press. From the 'sixties hand pressure was gradually replaced by hydraulic pressure and side pressing by end pressing, and by the end of the century many bales were double-dumped. The result was that wool packs became more regular in size and shape and progressively more weight was compressed into a smaller space[2]. The

(1) The actual purpose of developmental investment in pastoral properties is often unclear. It could be argued, for example, either that fencing was designed to reduce the costs of production of a given quantity of wool or that it was effected with the object of increasing the amount which could be produced from a given piece of land (Cf. the arguments advanced in the Sydney Morning Herald, 23/3/1891, and A.I.B.R., Vol.15, p. 330.) Whatever the object, however, one result was to make possible the occupation of otherwise unprofitable areas.

(2) The Australian Agricultural Company, accustomed to using a screw press at Warrah Station found, in 1876, that the use of a hydraulic press would reduce the number of bales by one-third. The cost of installation would have been covered in two years by the savings in colonial transport charges. (Australian Agricultural Company, Despatches from London, No. 381, 18/2/1876 and Miscellaneous Warrah Papers, "Memo of the estimated cost and gain of dumping wool at Warrah, 2/8/1876").

saving in inland carriage and handling charges was substantial. Again, washing sheep before shearing was a practice common throughout Europe and one imported into the colonies by English migrants and at the advice of the English trade. Buyers refused to contemplate wool from which the grease and foreign matter had not been at least partly removed, and their bids rose with the quality of the washing. Colonial graziers soon abandoned the use of running streams for specially constructed washing pools. In the 'fifties and 'sixties special washing soaps were imported from England and France and pumps installed - all at considerable expense - so that sheep, or later their shorn wool, could be washed under pressure with either hot or cold water to approximate as closely as possible the buyers' ideals. In other cases the wool was scoured, either on the station or in the cities, after it had been shorn. After the 'seventies, by contrast, there was a growing tendency to market it in its original greasy state. This eliminated all the costs of washing or scouring and met the increasing buyer preference for greasy wool, while improved transport facilities meant that it did not involve greatly increased carriage costs which might offset these advantages.

In addition to improvements increasing the carrying capacity of the land, others increased the yield of wool per sheep. Overall this possibly meant an average annual increase of 1% between 1860 and 1890, though it may have been more

significant after 1870 than before[1]. The introduction of new breeds of sheep played an important role in this process. Fencing also increased the average weight of the fleece and machine shearing added an average of 2 oz. to each fleece shorn on one station[2]. (Machine shearing does not seem to have reduced costs appreciably except by preventing waste and ensuring even shearing[3].) One of the most important factors not only in increasing the wool yield per sheep but also of

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(1) Quinquennial average yields of sheep and lambs' wool calculated from Tables IV and V show a rise from 2 lb. in 1860/4 to about 5.8 lb. in 1875/9, 5.6 lb. in 1885/9 and to 6.7 lb. in 1895/9. In 1910/14 it was 8.3 lb. This grossly exaggerates the actual improvements which took place, for the production statistics make no allowance for the changing proportions of greasy and scoured wool. The change from 1875/9 to 1910/4 more closely approximates the magnitude of the increase due to better breeding, better production methods and better shearing. By contrast, the scoured wool shorn from the sheep and lambs of the Australian Agricultural Company flocks increased from an annual average of 2.97 lb. in the period 1869-71 to 3.29 lb. in 1876-8; the greasy wool yield rose from 6.02 lb. in 1876-8 to 6.75 lb. in 1896-8 (Australian Agricultural Company, Annual Returns). It must be remembered, however, that this Company was one which bred for quality wool rather than quantity alone.

(2) Australian Pastoral Company, Manager's Annual Reports, 1901. I am indebted to the company and to Gibbs Bright & Co., the managing agents in Australia, for permission to view and use material from their archives.

(3) Under the most favourable circumstances, including a low contract price, the Australian Pastoral Co. found that the saving amounted to only ½d. per sheep (Manager's Annual Reports 1906). H. Munz, The Australian Wool Industry (Sydney, 1950) p.95 gives an account of the very slight differences in the speed of hand and machine shearing at the end of the century. In 1894 Jacomb & Co., London wool selling brokers, lamented that "practical consumers somehow refuse to recognise any material differences between machine and hand shorn fleece" (Australian Agricultural Company, Letters from the Secretary, enclosure with 22/3/1894).

improving the carrying capacity of the land was the development of mixed farming associated with the growth of agricultural production.

Mixed farming provided, in effect, a continuation of the trend to more intensive grazing in well-watered regions which was considered above. While one tends, perhaps, to think of agriculture expanding at the expense of grazing - the conversion of pasture to arable and the displacement of stock by crops - in fact in Australia the conversion was slow and never wholly complete. Agriculture, and particularly wheat growing, tended to mean mixed sheep and crop husbandry and frequently in the nineteenth century developed as a diversification of, and side by side with, existing grazing activities. In New South Wales, where it developed late in the century, small selections designed for agricultural occupation were largely used for grazing and perhaps some cropping until a favourable conjunction of markets, transport and technology led to an expansion of the agricultural side - but without any significant reduction in the flocks. In Victoria and South Australia, where agricultural activity had been stimulated from the 'sixties by a complex of factors, sheep were often grazed on farms both because of their value as sideline production and because they increased the agricultural yield[1]. This tendency to raise sheep in

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(1) Farmers appreciated, empirically, the beneficial effects of grazing sheep over wheat stubble long before it was officially recommended by the scientists in the colonial Departments of Agriculture.
Even the smallest holdings often ran sheep too; see the Royal Commission on Crown Lands, Minutes of Evidence, Victorian Parliamentary Papers, 1879/80, Vol.III, Paper 72, passim.

conjunction with farming had two important consequences. It meant, firstly, that the number of sheep did not fall significantly as agriculture expanded; it might even be claimed that flocks increased as a by-product of the agricultural expansion. Secondly, given the nature of the soil and climate, in many regions mixed farming tended to be more highly productive of wool than extensive grazing.

What happened in Victoria and South Australia was that a redistribution in the ownership and a change in the size distribution of the flocks was effected. Closer settlement did involve cutting up large grazing estates. But not all that land was withdrawn from grazing. The large station flocks were reduced and their places taken by small farm flocks. The effects of this process are illustrated in Table VI which shows the average size of flocks in Victoria in the censal years between 1861 and 1891.

Table VI.

Average size of sheep flocks in Victoria and New South Wales, 1861-1901 (1).

Year	Average size of flocks	
	Victoria	New South Wales
1861	6986	5307
1871	8092	12491
1881	2933	11510
1891	2756	9109
1901	2075	4872

(1) These have been calculated by dividing the census returns of the number of persons entered as pastoral employers in each colony into the number of sheep at those dates. The comparisons are not entirely accurate as dairymen are included among the Victorian pastoralists and no account is taken of pastoralists owning more than one flock, but the changes are so very great that this is not important.

In New South Wales the same process of running sheep with crops had begun by the 'eighties. In the Cootamundra and Molong districts mixed wheat and sheep raising was common by 1886[1]; by 1890 it was general between the Murrumbidgee and the Murray and well known as far west as Hillston[2]. It was not until the 'nineties, however, that agriculture expanded at all rapidly in that colony, and its effects may then be seen in the increase in stock numbers despite the rapid decline of the large flocks of the Western Division. The number of flocks of over 50,000 sheep declined from 208 in 1894 to 81 in 1900, while the number of flocks of less than 2,000 sheep increased from 10,415 to 12,798. This was associated with a far greater decline in the number of sheep in the Western Division (from 15.4 m. to 6.3 m.) than in the Tablelands and Western Slopes which were more suited to wheat growing[3].

The greater productivity of mixed farming remained a matter of dispute for some years, possibly because the quality of the sheep and the wool from small holdings lacked the breeding of station stock. Nevertheless it was apparent that sheep grazed over wheat stubble in the autumn were better fed, healthier and less afflicted by disease than others. The stock carrying capacity of the land was increased by 25%[4] and

(1) W.S. Campbell, Extracts from Reports on Certain Agricultural Districts (Sydney, 1888) pp.28 and 42.

(2) Standing Committee on Public Works, Reports and Minutes of Evidence on the Proposed Railways for the Riverina, N.S.W.Votes and Proceedings, 1891/2, Vol.5, evidence of C.Uphill, A.S. Joss, T. Lutham, and P.P. Sandral; also Report on the Proposed Temora-Hillston Railway, loc. cit., passim.

(3) W. & P. 1900-01, pp.574, 578.

(4) Standing Committee on Public Works, Report on the Proposed Temora-Hillston Railway, N.S.W. Votes and Proceedings, 1891/2, Vol.5, evidence of Robert Cooper.

because coarser breeds of sheep were run the weight of the fleece tended to be greater.

That the increasing importance of small flocks was not merely the product of mixed farming is shown, however, by the gradual decline in the size of flocks in New South Wales after 1861, and particularly after 1881 (Table VI). The entry of many small scale producers in the 'eighties, the various schemes for closer settlement involving government resumption of large estates and the imposition of progressive land taxation at the turn of the century both helped increase the number of small flocks and diminish the number of large ones.

These changes, both in the technology and the location of wool production, implied changes in the scale on which it was conducted. The carrying capacity of semi-arid lands was low and the net returns per sheep tended to fall as production moved farther into them. This called for cheap handling and large flocks - for profits derived from small returns on many sheep. Though this meant a high initial investment in stock (or a relatively long period of waiting while flocks multiplied by natural increase) and had important consequences for financing production, the heavy capitalisation which came to be associated with the industry did not begin until the 'seventies[1]. Then the improvements necessary to stock stations to their full capacity and to prepare clips more efficiently - fencing and water conservation, washing pools, scouring plants and more

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(1) Australian new capital formation in agriculture and the pastoral industry rose from an average of £893,000 in the period 1863/5 and £862,000 in 1866/70 to £2,953,000 in 1871/5 and £6,679,000 in 1876/80 (N.G. Butlin, op. cit., p.133).

elaborate shearing sheds - were reflected in mounting capital costs. On the other hand, of course, where pastoral production was carried on together with farming, the scale of activity and of capitalisation tended to decrease.

Chapter 2

The Consumption of Australian Wool

The growth of Australian wool output coincided with a sustained expansion of the European and North American wool textile industries which continued to absorb, year after year, the production not only of Australia but also of South America, South Africa and New Zealand without appreciable difficulty. In broad terms it is indisputable that wool production in these new countries was stimulated, up to the 'sixties at least, by the extension of demand implicit in the mechanisation of these industries[1] and that, in turn, the continued industrial expansion after the 'sixties was made possible, in part, by the huge inflow of cheap antipodean wools.

Generalisations as wide as these are seldom very informative; when referred to particular cases they are sometimes actually misleading. When considering the markets for Australian wool what matters is not the overall interdependence between pastoral production and manufacturing activity but the changes in the extent, the nature and the sources of the demand. It is misleading to imagine Australian output being absorbed by a ready-made demand which merely grew year after year and with whose fluctuations it broadly corresponded.

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(1) The thesis advanced by B. Fitzpatrick in The British Empire in Australia, an economic history, 1839-1939 (Melbourne, 1941), p.189, that the raison d'etre of the growth of the Australian pastoral industry lay in the British industry's need for raw materials to sustain its expansion during the 'forties is a seductive but grossly oversimplified one, and one which becomes increasingly difficult to maintain in the succeeding decades.

One of the most important features of the trade in Australian wool has been, in fact, the striking way in which the expansion of output after the 'sixties, occurring as it did in the context of a generally declining price trend for wool, was absorbed only by an increasing variety of consumers. Its use spread from the woollen to the worsted industry[1] and from Great Britain to Continental and North American mills. These changes themselves, and the changes in the structure of the manufacturing industries with which they were partly associated, affected significantly not only the prices paid for colonial wool but the market organisation by which they were exchanged. Further, at the same time as Australian output was expanding, wool production was growing rapidly in other countries in the southern hemisphere. The relationships between the consumption of these competing wools are completely obscured by any general statement. These are the questions to

(1) Throughout most of the nineteenth century the distinction between the worsted and woollen industries was an easy one to draw. The basic differentiating process of worsted manufacture was "combing". This meant the separation of the short wool fibres (the "noils") in the raw wool input from the long ones (the "tops") in such a way that the long fibres were laid out parallel to one another. The tops provided the raw material for the worsted spinner. In woollen manufacture, on the other hand, short fibres (including noils imported from the worsted industry) were laid criss-cross on one another by the process known as "carding", prior to spinning. Each branch, therefore, used broadly different types of wool, and the different types of yarn which these wools and the different processes produced resulted in different types of fabrics. Towards the end of the century and in the twentieth century the distinction between the types of wool and the types of yarn used and consequently between the fabrics characterising each branch tended to become blurred, and it becomes more difficult to define the boundaries between them.

which this chapter is devoted. They can be traced in an examination of factory consumption of raw wool and we have little need, at this stage, to study final consumers' demand for wool textile products.

1. British consumers.

During the 'thirties and 'forties Australian wool gradually displaced other imported wools in the mills of Great

Table VII

Sources of Imports of Wool into the United Kingdom, (including alpaca), 1800-1900[1].

Year	Australasia	Germany	Spain	South America	South Africa	Total(a)
	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.
1800	-	0.4	6.0	-	-	8.6
1810	-	0.8	5.9	-	-	10.8
1820	0.09	5.2	3.5	-	0.01	9.7
1830	1.9	26.7	1.6	-	0.03	32.3
1840	9.7	21.8	1.2	4.3	0.7	49.4
1850	39.0	9.1	0.4	5.2	5.7	74.3
1860	59.1	9.9	1.0	8.9	16.5	148.3
1870	175.0	-	-	12.6	32.7	263.2
1880	300.6	-	-	10.2	51.3	463.5
1890	418.7	-	-	11.1	87.2	633.0
1900	386.3	-	-	35.5	32.2	558.9

(a) The total includes wool from other countries less important than those in the table, and is not an addition of the columns.

(1) Sources: A. Hamilton, "On Wool Supply", Journal of the Royal Statistical Society, Vol.XXXIII (1870), p.502; Statistical Abstracts of the United Kingdom. It is necessary to use these figures with some caution, for the Board of Trade improved its collection methods during the century and changes in the statistics often represent no more than a greater accuracy than before. In 1869 Messrs. J.L. Bowes of Liverpool observed that in 1868 the Board of Trade figures for Australasian wool imported were 47% below the actual figures; as a result of improved techniques it was considered to be understated by only 15% in 1869 (Argus, 27/10/1869). Consequently comparisons over time are not strictly possible. As these collections have an authority that trade circulars could not possess they will have to suffice for our purposes.

Britain and by 1850 the imports of the Australasian product exceeded those of all other wools combined. This rise to supremacy is a story familiar to all[1] and is illustrated in Table VII which shows the changing source of Britain's imports during the century. In addition, colonial wool came to overshadow the use of domestic English wool. In 1850 retained imports of colonial and other wools were only one-half the size of the retained domestic production; by 1870, by which time Australasian wool amounted to two-thirds instead of a half of total imports, the proportion of imported to domestic wool retained had risen to 122%; and by 1890 to 261%[2]. Yet these global figures, and the apparent capacity of the British industry to accept such a growing volume of imports conceal a complex pattern of adaptation and a changing utilisation. Changes in consumers' clothing fashion, a growing shortage of suitable domestic wools and increasingly severe competition from Continental industries forced the worsted industry to enter the market for colonial wool which, until the late 'sixties and 'seventies, had in England been the preserve of the woollen manufacturers.

(1) Cf. S.H. Roberts, "The Australian Wool Trade in the 'Forties" Journal of the Royal Australian Historical Society, Vol. XVII, Part VI, p.337.

(2) Source: A. Sauerbeck, The Production and Consumption of Wool (London, 1878), pp. 3, 27.; The Tariff Commission, Report Vol.2 The Textile Trade, Part 2, "Evidence on the Woollen Industry" (London, 1907), para. 1512. The figures for imports include alpaca, vicuna and llama wool and goats' hair. If those products are excluded, which is possible only after 1875, the relevant proportion for 1875 becomes 125%, for 1880 169% and for 1890 241%.

Until the end of the 'sixties the woollen industry remained almost the only substantial consumer of Australian wool; in 1858 it utilised 83% of the retained imports of wool from all foreign and colonial sources. The consumption data for the two English industries are very unsatisfactory, and they relate only to the 'fifties. Table VIII, however, indicates very clearly the widely differing patterns of raw material types used and the dominance of the woollen industry in the market for imported wools. The first group to buy colonial wool at the London sales had been in fact, the Yorkshire woollen manufacturers and dealers, and they had been followed, in the 'forties, by West of England woollen interests(1). The reason for this particular pattern of demand is not difficult to discern. The industry had been weaned on relatively short wool from the Downs, and when it outgrew that source it sought its raw materials from the merino flocks of Spain and Saxony. When a similar type of wool became available from New South Wales at a lower price and in greater quantities than the German product, and when the quality of the German flocks began to deteriorate, their choice was made with little hesitation. The smoothness of the change arose from the fact that it presented no major technological problem: it was the source of the raw material and not its nature, which was changed.

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(1) W.H. Chard, Australasian Wool Markets (Sydney, 1926), p.12. See S. Macarthur Onslow, Some Early Records of the Macarthurs of Camden (Sydney, 1914), chapter XIII, passim for a more detailed identification of the buyers in the 'twenties.

Table VIII.

Estimated consumption of raw wool by the worsted and woollen industries of the United Kingdom, 1851, 1857 and 1858[1].

Year	Worsted Industry			Woollen Industry		
	English wool	Imported wool	Total	English wool	Imported wool	Total
	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.
1851	65	15	80	n.a.	n.a.	n.a.
1857	80	15	95	n.a.	n.a.	n.a.
1858	n.a.	15	n.a.	80	76	156

Although German wool was still imported in small quantities even in the twentieth century for speciality work[2], the colonial wool displayed all the characteristics which manufacturers had demanded of it.

On the other hand the worsted industry had always used long domestic wool. Although the perfection of mechanical combing and its general adoption during and after the 'forties made it technically possible for short wool to be

(1) Source: T. Baines, Yorkshire, Past and Present, 2 vols. (London, n.d.) chapters in vol. 1 by E. Baines, "The Woollen Manufacture of England with special reference to the Leeds Clothing District" (1858), and "Supplementary Account of the Woollen Trade to 1870". Estimates of the value of worsted production (from which this table is prepared) made by Forbes in 1851, James in 1857 are quoted on pp.693 and 694 respectively, and of woollen production by Baines in 1858 on p.659. The worsted industry's consumption of 15 m.lb. in 1858 is Baines' estimate (p.660).

(2) J.H. Clapham, The Woollen and Worsted Industries (London 1907) p.80.

prepared for worsted spinning[1], it was many years before this allegiance was changed. The reason for this is that from the 'thirties production had become increasingly concentrated on mixed lustre goods, in which worsted yarn was combined with other fibres like alpaca, cotton and mohair[2]. This style of cloth demanded the use primarily of long hard English wool. Consequently although, as Table VIII shows, some relatively long foreign and colonial wool was utilised, combing machines like those of Holden and Donisthorpe which could work on short stapled wool were discarded in favour of those of Lister and later of Noble which were more suited to long wool[3]. The rapid expansion of worsted production which the mechanical innovations in combing and spinning permitted and which the introduction of cheaper fabrics from cheap mixed raw materials induced, and the growing demand for wool which that implied, had therefore very little effect on the demand for specifically colonial wool.

The increase in the English demand for Australian wool up to the end of the 'sixties arose from the fact that the woollen industry was expanding. Mechanisation proceeded

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(1) T. Southey, The Rise, Progress and present State of Colonial Wools (London, 1848), p.9, says that Donnisthorpe's improved combing machine patented in 1844 could work on a staple down to 1¼ inches in length. Normal combing wool was 3 inches or more.

(2) Cf. T. Illingworth, Our Textile Industries: What is the cause of their so-called depression? (Bradford and Manchester, 1883), pp.15-16; also E.M. Sigsworth, A History of Messrs. John Foster & Son, Ltd., 1819-1891 (unpublished Ph.D. thesis, University of Leeds, 1954), pp.78-96.

(3) Lister controlled all the patent rights by 1853 and produced only his own machine for sale in England. After the expiration of the patents in 1860 Noble's machine was widely adopted in Bradford (Sigsworth, op. cit., pp.71-2).

slowly. (Though the power loom was being used on a small scale in the West Riding from the early 'fifties it did not attain widespread use until the 'seventies[1], and in 1858 many elements of the domestic system of production remained[2].) Yet the industry flourished. The Cobden Treaty with France in 1860 and subsequent agreements with the Zollverein, Belgium and Austria opened markets into which the Yorkshire and Scottish manufacturers moved with alacrity[3]. New mills were erected, equipment was extended and the earnings of operatives rose[4]. To some extent the expansion was an uneven one. The West of England manufacturers retained their supremacy in the production of superfine cloths, but the demand for plain cloths, which was the staple production of the West and of Leeds, was declining. Growth occurred mainly in the increasingly popular fancy cloths and cheap medium and low quality woollens made mainly in the West Riding[5]. As in the worsted industry a mixture of raw materials made it possible to exploit an ever-widening market for cheap goods; warps of cotton or worsted yarn were in common use by 1870, silk was woven with a woollen warp, and a vast increase took place in the amount of shoddy and mungo incorporated in woollen cloths[6].

(1) E.P. Dobson and J.B. Ives, A Century of Achievement. The History of James Ives & Company Limited, 1848-1948 (London, 1948), pp.38-9.
(2) Baines, op. cit., p.631.
(3) Ibid, p.668.
(4) Tariff Commission, op. cit., para. 1642.
(5) Baines, op. cit., pp.642 and 666.
(6) Ibid., p.669.

Meanwhile the worsted industry was expanding even more rapidly and spectacularly. Cost reducing innovations in combing and spinning[1] and the introduction of new fabrics from cheaper mixed raw materials continued to widen the market for worsted goods. Further stimulus was derived from the treaties with Continental countries and from the expiration of patent rights on combing machinery which permitted a ready expansion of that branch of the industry. Although, once again, no satisfactory measure of the industry's output is available, Table IX indicates the order of the magnitude of the expansion. Allowing for at least an equivalent expansion of

Table IX.

Biennial Exports of Worsted Yarn and Fabrics from the United Kingdom, 1857-1869[2].

Year	Yarn	Fabrics
	lb. '000	yards '000
1857	23,930 (a)	129,632
1859	22,122 (a)	150,433
1861	26,492 (a)	122,556
1863	30,002	165,835
1865	30,221	233,087
1867	33,571	200,469
1869	35,572	250,062

(a) Includes woollen yarn.

the home trade, the export figures suggest an expansion of up to double the 1857 output[3].

(1) Sigsworth, op. cit., pp.53 ff.

(2) Source: F. Hooper, Statistics relating to the City of Bradford and the Woollen and Worsted Trades of the United Kingdom (Bradford, 1899), pp.16-17.

(3) Sir Jacob Behrens's estimate of the proportion of worsted production consumed at home in 1864 was slightly over 50% (Baines, op. cit., p.694). Other estimates in the next twenty years range from 50% to over 80% (Sigsworth, op.cit., pp.185-7).

This growth, however, over-reached itself. The supply of suitable wool did not expand commensurately with the industry. It was for this reason that manufacturers turned to consider colonial wool; but it was still long wool in which they were interested, not the short merino. The efforts of the Wool Supply Association, established through the Bradford Chamber of Commerce in 1859(1), were therefore devoted to the popularisation of the long woolled breeds of sheep in Australia and New Zealand(2).

Towards the end of the 'sixties the worsted industry was faced with a further set of changed conditions which entirely transformed the market for colonial wool. The lustre goods on which the industry had concentrated for so long began to lose their popularity and consumers tended to transfer their preference to soft all wool worsteds(3). For these new wares shorter wool was essential. English domestic wool production had, by this time, switched almost entirely to the long wool which had formerly been in such great demand and which had not been in such close competition with the colonial produce(4). Consequently the industry had

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(1) Its activities embraced the distribution of information, assistance to emigrants and submissions to the governments.

(2) Commenting on a sample of wool sent to Bradford the chairman said that "what they wanted at present was a large supply of deep combing wool . As a committee they were doing all in their power to urge on the people in Australia in that direction." (Argus, 8/4/1872). As another example of their publicity see "Omega", The Sheep, Long Woolled as well as Short Woolled, for Victoria, Tasmania and New Zealand, (Melbourne 1865).

(3) Illingworth, op. cit., p.16; Sigsworth, op. cit., pp. 127, 187.

(4) Baines, op. cit., p.662.

to seek its raw material from Australia. The adaptation to the changed fashion was a slow and difficult one. In particular, spinning machinery, which had been geared to working long English and colonial wools, had to be adjusted to the novel conditions(1). Moreover, French superiority in producing these cloths placed the English manufacturer under a severe competitive handicap, despite the breathing space afforded by the Franco-Prussian War.

From the early 'seventies the worsted industry became the dynamic element in the British demand for colonial wool. On the one hand, the use of short merino wool was becoming increasingly necessary and the means of treating it increasingly efficient. At the same time, while the expansion

Table X.

Number of Worsted and Woollen Spinning and Doubling Spindles in the United Kingdom, 1850-1904(2).

Year	Worsted		Woollen	
	Spinning	Doubling	Spinning	Doubling
	millions	thousands	millions	thousands
1850	0.87	n.a.	1.59	n.a.
1861	1.28	n.a.	1.82	n.a.
1871	1.82	n.a.	2.66	n.a.
1874	2.18	400	3.17	158
1878	2.10	456	3.34	318
1885	2.23	536	3.05	231
1890	2.40	669	3.11	300
1904	2.94	845	2.61	211

of worsted production continued the growth of the woollen

(1) Sigsworth, op. cit., pp.150-4.

(2) Source: A. Redgrave, Factory Reports, 1875 (London, 1876); Tariff Commission, op. cit., para. 1521-2.

industry slowed down. The reimposition of foreign protective duties and growing competition in export markets from foreign manufacturers pressed more heavily on woollen manufacturers[1] While the number of worsted spinning spindles increased by 22% between 1871 and 1885, and by 32% between 1871 and 1890, woollen spinning spindles increased by only 11% and 17% during the same periods (Table X), and the contrast is even more marked when doubling spindles are considered. The expansion of the worsted industry between 1840 and 1870 had not affected the demand for colonial wool as long wool was its principal raw material. Now, the co-incidence of worsted demand for short wool with a relative decline in woollen demand gave the worsted industry a doubly important role. On the other hand, the traditional worsted processes also commenced using colonial wool in increased quantities from the 'seventies. The relatively fixed nature of the domestic wool supply meant that any expansion of this section of the worsted industry had to rely more and more on the growing colonial production of cross-bred long wool and, later, of fine long come-back wool. An increasingly large, though unrecorded, share of colonial wool imports were therefore taken by the worsted industry after about 1870.

It would be a mistake, however, to imagine that these developments in the English wool textile industries were the sole, or even the main, set of circumstances affecting the consumption of colonial wool. Though the expansion

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(1) Tariff Commission, op. cit., para. 1390-2.

of the woollen industry and the entry of the worsted industry into the market together meant a great extension in demand it did not nearly match the growth of colonial output. Great Britain did not for long, in fact, retain the monopoly of Australian wool which she enjoyed in 1840. After 1860 the re-exports of foreign and colonial (mainly colonial as Table VII reminds us) grew rapidly both in absolute terms and as a proportion of total imports. The comparison of retained imports and re-exports in Table XI indicates that by 1880

Table XI.

Quinquennial Measure of British Consumption and Re-exports of Imported Wools (including alpaca, goats' hair etc.) 1840-1900(1).

Year	Retained Imports	Re-exports
	lb.m.	lb.m.
1840	49	1
1845	75	3
1850	63	14
1855	73	29
1860	120	31
1865	135	82
1870	174	92
1875	200	172
1880	239	237
1885	252	267
1890	309	341
1895	397	405
1900	385	196

only half the imports were consumed in England. The re-exports went mainly to Continental countries. France, in particular, became a major force in the market after the

(1) Sources: A. Sauerbeck, op. cit.; Tariff Commission, op. cit., para.1512.

removal of the import duties on raw wool in 1860. Re-exports to Belgium became significant in the late 'sixties, to Germany in the early 'seventies and to the United States in the late 'seventies[1]. By the end of the 'seventies London's importance was rapidly becoming that of an entre-pot market for the Continental industries. The growing importance of the re-export trade means that, despite the fact that British industry remained the largest single consumer, explanations of movements in the market for colonial wool must be sought, to an increasing extent after 1860, in the implications of Continental demand.

2. Continental Consumers.

From 1860 the Continental textile industries grew rapidly. Not only did the size of the French and German industries, in particular, rival that of the United Kingdom, but the rate of their expansion outpaced that of the older one (Table XII). This was not based nearly as much on colonial wool as the English expansion was. In addition to large domestic supplies[2] the Continental industries made use of far more South American and South African wool than England

(1) See below, Table XIII .

(2) See below, Table XVI .

Table XII

Estimated Consumption of Raw Wool in Europe and North America, quinquennial averages, 1855-1899(1).

Period	U.K.	France	Germany	European Total	North America
	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.
1855/9	215.0	n.a.	n.a.	n.a.	n.a.
1860/4	251.0	239.0	n.a.	761.0	
1865/9	292.8	319.1	n.a.	778.0(a)	211.5(a)
1870/4	330.8	330.0	(155.7)(b)	802.6	238.8
1875/9	342.2	379.3	174.5	877.2	268.0
1880/4	336.0	409.5	219.8	957.8	372.2
1885/9	392.0	467.5	284.0	n.a.	n.a.
1890/4	452.0	504.7	348.1	n.a.	n.a.
1895/9	493.8	558.2	394.7	n.a.	n.a.

(a) Four year averages.
(b) Three year average.

did. One approximate measure of their consumption of specifically colonial wool may be gained from Table XIII which shows the apparent destination of British re-exports of foreign and colonial produce. This measure suffers two defects: that the destination is only apparent, an unknown quantity passing through Belgium in particular either in transit or for reshipment to the final consuming country

(1) Sources: Helmuth Schwartze & Co., The Production and Consumption of Wool (London, 1887); Statistical Tables and Charts relating to British & Foreign Trade & Industry, (1854-1908), Parliamentary Papers, 1909, Vol.CII, (Cd.4954), Table 75.

Table XIII

Apparent Destinations of British Re-exports of Foreign and Colonial Wool, 1860-1900[1].

Year	France	Belgium	Germany	United States	Holland	Total
	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.	lb.m.
1860	15.7	7.9	1.3	n.a.	-	30.6
1861	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1862	19.3	11.3	2.1	7.7	-	37.4
1863	31.5	8.4	2.2	11.1	-	63.9
1864	38.1	9.1	1.4	4.2	-	55.9
1865	50.1	15.1	5.5	7.3	-	82.4
1866	47.3	8.1	3.6	4.5	-	66.6
1867	51.6	19.1	11.5	3.9	-	90.8
1868	59.6	23.3	11.8	4.2	-	105.0
1869	65.2	24.2	12.2	6.4	-	116.5
1870	50.4	18.6	10.9	4.6	-	92.5
1871	n.a.	n.a.	n.a.	n.a.	n.a.	135.1
1872	n.a.	n.a.	n.a.	n.a.	n.a.	137.5
1873	n.a.	n.a.	n.a.	n.a.	n.a.	123.2
1874	n.a.	n.a.	n.a.	n.a.	n.a.	194.4
1875	n.a.	n.a.	n.a.	n.a.	n.a.	189.1
1876	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1877	96.0	40.5	28.2	14.7	-	187.4
1878	106.5	40.2	37.3	9.1	-	199.2
1879	107.1	45.7	50.0	29.2	-	243.3
1880	113.3	43.2	41.9	30.7	-	237.3
1881	131.6	47.8	55.1	21.8	-	265.3
1882	118.8	51.1	61.0	26.6	-	263.4
1883	115.6	49.9	68.2	34.8	-	277.1
1884	100.2	53.4	59.9	29.6	30.6	276.8
1885	78.6	55.9	51.1	51.0	28.0	267.6
1886	83.8	70.6	53.4	65.1	35.5	311.9
1887	76.2	82.5	66.4	58.0	32.2	319.0
1888	85.7	77.4	80.7	61.2	30.1	338.9
1889	88.0	79.6	91.4	67.1	33.0	363.4
1890	90.3	62.7	83.2	67.2	32.1	340.5
1891	104.4	69.1	99.4	80.2	26.5	384.1
1892	82.6	76.4	118.9	90.3	58.2	430.1
1893	75.6	76.0	85.4	52.6	51.3	345.7
1894	86.8	66.1	104.4	53.0	31.6	344.9
1895	96.0	49.5	120.4	125.2	8.2	404.1
1896	96.1	47.6	106.7	67.9	12.5	334.4
1897	73.0	44.4	79.5	155.2	14.6	370.8
1898	96.8	46.4	79.2	42.5	12.5	282.7
1899	93.3	43.3	100.1	42.2	7.9	291.8
1900	52.7	26.8	53.0	47.9	9.8	195.3

(1) Source: The Economist (London), Annual "Trade Supplements".

after preliminary washing and scouring; and that to these figures the direct exports of wool from Australia, especially after 1880, need to be added to give a complete picture[1]. Nevertheless three features, implicit in the figures as they stand, are most significant. The pattern into which the dates marking the expansion of exports to various countries falls is one which strikingly illustrates the development of the different industries. The second is the absolute preponderance of French purchases until 1881; the third the growing diffusion of exports after the mid-'seventies. Until that date, that is, the London market virtually served only the textile industries of the United Kingdom and France, and the demand for colonial wool was primarily responsive to conditions affecting them. After that date the effect of the demand from any one country, except perhaps England which still retained nearly half her imports, played a much less prominent role in the formation of prices at London.

In order to explain this diffusion of consumption, and to place it in a setting appropriate to later discussions, it is necessary to consider, in outline, the main features of the history of wool textile manufacture in these countries.

Throughout this period France was the United Kingdom's main textile competitor. Table XII shows her consumption higher than England's by 10% by the second half of

(1) In the 1896/7 selling season 362,989 bales were forwarded from the Australian colonies direct to the Continent (Goldsbrough, Mort & Co. Ltd., Australian Wool: Its Position and Prospects in 1896 (Melbourne, 1897) p.14). In round figures this would be equivalent to about 100 million lbs, or almost one-third of the amount of foreign and colonial wool re-exported from London.

the 'seventies, and even by 1860 French manufacturers were in a strong enough position to face the threat of British competition under the Cobden Treaty without undue immediate alarm[1]. The course of technical development in the worsted industry broadly paralleled that of Britain though the initial moves occurred a little later. In the 'forties most wool combing was done by hand. At the end of that decade machines invented by Heilman and Schlumberger were beginning to displace handwork, and in the first half of the 'fifties the industry was revolutionised by their wide-scale adoption. The Heilman machine, which met with the widest approval, made it possible to produce greatly increased quantities of better quality tops at less than half the former cost[2]. Machine combing als made it economical to introduce machine spinning, which had been rare before the mid-'forties, because it ensured the large, stead

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(1) A.L. Dunham, The Anglo-French Treaty of Commerce of 1860 and the Progress of the Industrial Revolution in France (University of Michigan Publications, History and Political Science Vol. IX, Ann Arbor, 1930) p.222.

(2) The reduction is put at 60% by M. Alcan, Rapport tendant a accorder a M. Josue Heilman, inventeur de la Peigneuse Mecanique, le prix fonde par M. le Marquis d'Argenteuil (Societe d'encouragement pour l'industrie nationale) (Paris, 1857) pp.5-6.
In a letter to George Marshland (29/10/1838) Isaac Holden described a plan whereby he hoped to capture the combing of fine wool for the French Merino cloth trade by cutting the cost from 1/- to 1/6 per lb. to 2d. to 4d. Allowing for the exaggeration natural to the circumstances (he was asking for financial backing) the envisaged saving was very great. (This letter is from the manuscript collection, The Holden-Illingworth Correspondence, held in the Brotherton Library, University of Leeds. I am indebted to the Librarian for permission to quote from it.)

flow of tops which was necessary[1]. Supplementing machine combing and spinning, the power loom began to be used more extensively after the 'forties. By 1870 combing was entirely mechanised, nearly all spinning was done on mules, mostly of the self-acting type, and the power loom was widely used (though hand weaving still occupied an important place in specialities and novelties)[2]. By that time, also, combing had become highly localised in the Roubaix-Tourcoing, Croix and Reims areas, and while weaving was more decentralised one-third of the 48 m.kg. of wool combed in the Roubaix-Tourcoing-Croix area was spun locally[3].

Unlike the British industry, French worsted production had been specialised on the manufacture of all wool merino cloths and superior worsteds since the end of the eighteenth century[4]. The main raw materials used in these lines were the domestic merino wools, and the combing and spinning techniques developed were those appropriate for treating short wool. There was, therefore, no obstacle, either technical or in the nature of the raw material, to French use of colonial wool in the worsted industry as there was to English. Yet large scale imports were made only after

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(1) This relationship, of course, was not one which was confined to France. On spinning machinery see Dunham, op. cit., p.225.

(2) Clapham, op. cit., p.249; Ministere du Commerce, de l'Industrie et du Travail: A. Picard, Le Bilan d'un Siecle (Paris, 1906), p.352; Dunham, op. cit., p.225.

(3) W.O. Henderson, Britain and Industrial Europe, 1750-1870 (Liverpool, 1954), p.101.

(4) Illingworth, op. cit., p.16; Dunham, op. cit., p.216.

1860. Heavy tariffs on raw wool were the hindrance. Imposed between 1816 and 1826, they amounted to 30% of the value. A reduction of one-third was effected in 1836 and in 1856 the ad valorem basis of the duties was changed to one of weight. In 1860 wool was admitted free of duty when imported in French vessels(1).

Basically, it was the development of the French machine combing industry and the tariff liberalisations which that development and the expansion of the worsted industry made necessary that account for the increases in British re-exports in 1850, 1855-60 and 1865 (Table XIII).

Although the British industry did in fact present a serious competitive threat after 1860, particularly to Roubaix-Tourcoing in the years immediately following the conclusion of the Treaty(2), worsted production boomed in the second half of the decade. In the 'fifties the construction of roads and railways had created a national market which was quickly exploited. In the 'sixties export channels were established and France began to compete with England for markets in Germany; exports of combed goods rose from 0.65 m. francs in 1861 to 7 m. francs in 1867, most of them sent to Germany and most of them produced in Roubaix and Reims(3).

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(1) Dunham, op. cit., p.131.

(2) Ibid., pp.230-2. This was felt mainly in the production of mixed worsteds. Isaac Crowthers writing to Isaac Holden from Croix (5/5/1866) recalled that in Roubaix the trade "gave themselves up for lost" in 1860, 1861 and 1862 (Holden-Illingworth Correspondence).

(3) Picard, op. cit., p.349.

Moreover, the British competition hastened the introduction of power machinery. The number of power looms in Roubaix increased from 1,000 in 1855/6 to 10,000 in 1867, and in the 'sixties the Reims combing industry doubled its capacity and output[1].

By the nature of the fabrics produced, this expansion was based largely on the use of South American and colonial wools, which found far wider use in the French than in the English worsted industry. This was made possible by the type of equipment used. French combing with Heilman, Schlumberger and Holden[2] machines, as we have already seen, was specifically adapted to short wools. Spinning was done almost entirely on mules which, again, were designed to work short wool and the use of which, in England, was restricted to the woollen industry. In particular, the technique by which the wool was drawn out before and during spinning was not only peculiarly adapted to short wool but enabled manufacturers to produce a yarn of greatly superior quality[3]. One of the main disadvantages which English worsted and woollen manufacturers found in colonial and particularly in South American wools - the presence of burrs and grass seeds - was readily overcome in France by the development of mechanical and chemical methods of removing them[4].

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(1) Dunham, op. cit., pp.230,233.

(2) Holden's was one of the main machines used mainly because of the importance of Holden's own combing works at Croix, Reims and St. Denis.

(3) W.S.B. McLaren, Spinning Woollen and Worsted (London 1884), pp.148-9.

(4) McLaren, op. cit., pp.47-8; Picard, op. cit., p.343.

As in England the development of the woollen industry was overshadowed by that of the worsted. The mid-'fifties marked the turning point in its fortunes. The business of the Elbeuf district, one of the main woollen manufacturing regions, reached a peak in 1858 and then declined during the 'sixties under the combined impact of British and Belgian competition and the handicap of dear fuel[1] and Elbeuf was typical, in general outline, of the other regions. Mechanical development was slow. Though machine spinning had been known for many years, it was still far from universal in 1860, and there were only a few power looms[2]. The goad of British competition did lead to improvements in carding and preparing machinery, to improved techniques in manufacturing[3] and to a more extensive use of power looms in the succeeding years. On the other hand, the difficulties of power weaving, the role played by speciality manufactures and the conservatism of the producers, tended to retard the introduction of power looms, especially in Elbeuf where even in the late 'seventies the transition was most incomplete[4]. The other step taken to meet the competition resulted in a shift of the emphasis of woollen production. Vienne, in the south-east, successfully turned to the production of low priced goods of cotton and wool and displaced the imports from

(1) Picard, op. cit., pp.342, 345.
(2) Dunham, op. cit., pp.225, 227.
(3) Ibid., loc. cit.
(4) Ibid., pp.323-4; J. Wrigley and C.E. Bousfield, Report on the Woollen Cloth Manufacture of France (Leeds, 1878), pp.7, 9.

Huddersfield[1]. The general trend, started in the 'forties, towards the imitation of low quality English goods was accelerated during the 'sixties and 'seventies[2]. None of these responses, however, was entirely adequate, and in 1875 and 1881 the industry successfully applied for the re-imposition of protective duties[3].

The raw wool materials for the French woollen industry differed from those of the English mainly in the use of greater quantities of South American and a readiness to use some burry colonial wool. It also utilised a far greater quantity of noils, the short residue removed from long wool by the combing process[4]. This tended to impart a greater softness to the French products. The greater variety of raw materials, however, meant that the industry's demand for specifically colonial wool was relatively small, and a considerable proportion of it was exercised indirectly in the demand for combing wool. This concentration of French demand for colonial wool into the worsted industry, fostered by the suitability of the colonial product for combing and the primacy of worsted production, was intensified during the last twenty years of the century as the distinction between worsted and woollen manufacture became less easy to draw. Fashion changes favoured the soft all wool worsteds against woollen

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(1) Wrigley and Bousfield, op. cit., p.18.
(2) Picard, op. cit., p.345.
(3) Dunham, op. cit., p.323-4.
(4) Picard, op. cit., p.343.

products, and there was a growing tendency to mix an increasing proportion of worsted with woollen yarns in products formerly composed entirely of woollen yarns or of mixtures of that and shoddy, mungo and cotton[1].

The wool textile industries of other European countries followed a similar, though later, development. Their evolution can be traced in the statistics of British and French wool textile exports and in the changes in the protective tariffs. Protection was first afforded to fabric manufacturers whose raw materials in the form of yarn, and to a slighter degree of tops and raw wool, were admitted free. Then protection was extended to spinners, and only tops and raw wool were freely admitted. Finally, duties were placed on tops and local combing encouraged. The more rapid expansion of yarn than raw wool exports from the United Kingdom up to 1857 reflects the expansion of French production before its spinning component was fully equipped to serve it[2]. Similarly the more rapid expansion of yarn than manufactured exports after the early 'eighties, shown in Table XIV, was produced by the initial expansion of manufacturing in Germany,

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(1) Picard, op. cit., p.353.

(2) British exports of woollen and worsted yarn, mainly to France, rose from 1.1 m. lb. in 1830 to 3.7 m. lb. in 1840, 13.7 m. lb. in 1850 and 24.6 m. lb. in 1857. The overall increase between 1830 and 1857 was over 23 times; that of raw wool exports only 5 times. (Baines, op. cit., p.640).

Table XIV.

Quinquennial Exports of Worsted Yarn and Manufactures from the United Kingdom, 1865-1895[1].

Year	Yarn	Manufactures
	lb. '000	yards '000
1865	30,221	233,087
1870	34,606	235,936
1875	31,139	251,845
1880	25,612	189,940
1885	40,416	198,764
1890	39,510	172,434
1895	59,848	110,674

Austria and Italy. The acceleration of German production is similarly reflected in its growing imports of French tops after the late 'eighties.

By 1867 Belgian worsted products were presenting a threat to both Bradford and Roubaix[2] while the woollen spinners were already gaining a wide reputation for the quality of their yarn[3]. By the 'eighties they were acknowledged masters in producing certain types of yarn which were extensively used by Glasgow woollen manufacturers[4]. To some extent this superiority was founded in natural advantages and the techniques for washing wool which were developed in Verviers. Economies in transport enabled it to capitalise

(1) Source: Hooper, op. cit., pp.16-17.

(2) Picard, op. cit., p.352.

(3) Ibid., p.214; Belgian yarn exports to England rose steadily from 846, 500 lbs in 1867 to 3,963,100 lb. in 1871 (A. and J.A. Redgrave, Labour, Wages, Production in the Cotton, Woollen and Flax Factories of France and Belgium (London, 1873), p.28).

(4) McLaren, op. cit., pp.38, 228.

on those advantages, for it was situated on one of the major cross-roads of European commerce. Buyers who obtained their supplies at London or Antwerp were able to have them sent there, before being forwarded to their producing area, at virtually no extra cost. At the same time the machinery and techniques used in spinning woollen yarn were considered better adapted to the type of wool used and the nature of the finished product than any others[1].

Swiss worsted spinning establishments were founded in the late 'sixties and 'seventies. Prussia and Austria began to imitate English woollen wares from the end of the 'sixties. The main expansion in those countries came, however towards the end of the 'seventies. The unification of the German states by Bismark and the tariff of 1879 provided the opportunity for a vast expansion of worsted production and a considerable one in the woollen industry there. By 1900 Germany had become Britain's "worst competitor"[2]. The rapid extension of worsted spinning in Germany, Austria and Italy during the 'eighties may be traced in the history of a firm of Swiss wool merchants[3]. In the first half of the century it supplied raw wool to small woollen manufacturers in Alsace and the southern German states; by the middle of the century

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(1) McLaren, op. cit., p.228.

(2) Tariff Commission, op. cit., para. 1383.

(3) Simonius Vischer & Co., The Chronicles of a Basle Wool Trading House, 1719-1939 (Basle, 1939). The following discussion in the text is based on this work without further references.

the partners were shareholders in a newly formed Alsatian worsted spinning mill; by the 'seventies and 'eighties the nature of its trade had changed completely and it was now almost entirely devoted to supplying worsted spinners in Switzerland, Germany and Italy; at the same time the source from which they obtained their stocks of raw wool had changed from the flock-owners of Hungary, Italy and south Germany to the public auctions at London and Antwerp; and finally, the trade with woollen manufacturers was re-opened, but entirely as a subsidiary to the worsted trade, for it was based on the sale of the noils not required by the worsted spinners.

The growth of these Continental industries from the middle of the century meant an expanding demand for wool. Moreover, this demand came to be exercised more and more by these countries themselves. The expression of their demand for wool textile goods, that is, shifted from a demand for imported finished products to one for imported raw wool. They exerted, therefore, a growing force in the international raw wool markets. In the case of colonial wool the combined share of the Continental and North American countries in the purchases made in London rose from thirty million to four hundred million pounds from the beginnings of the 'sixties to the middle of the 'nineties, while the British share rose only slightly over three times (Tables XIII and XI). Despite the importance of these countries in that market, however, the role of colonial wool in their consumption should not be overestimated. South American and domestic European wools

provided the bulk of the European raw wool requirements[1], and colonial wool did not bear the same relation to Continenta textile activity as it did to English.

3. The Structure of Industry and the Structure of Demand.

In 1906 Clapham reported that the woollen and worste industries of England were organised on quite different principles: the woollen industry was composed of unspecialised, relatively small scale producers; the worsted industry on the other hand was marked by large scale concerns specialised on one process of manufacture[2]. The same division was broadly true of the Continental industries. The essential point of that differentiation in this context is that it had developed in that particular form during the preceding fifty years. The specialisation of worsted concerns had proceeded from relatively small scale integrated mills, while in the woollen industry the process was one of concentrating into one larger scale mill activities formerly performed by specialists.

Apart altogether from their effects on productive capacity and therefore on the total demand for wool, these changes had most important implications for the expression of demand in, and consequently the organisation of, the wool market. Demand became concentrated at fewer and more powerful points. An increasing proportion of the demand for wool for

(1) See below, pp.74-7.

(2) J.H. Clapham, "Industrial Organisation in the Woollen and Worsted Industries of Yorkshire", Economic Journal, Vol. XVI (1906), p.515.

worsted purposes came to be exercised by large spinners, merchant-combers and a few raw wool merchants, instead of by the large number of integrated mills and wool dealers who were characteristic of the first half of the century. In the woollen industry the reduction in the number and the increase in the size of the units of production meant that supplies could more easily be obtained without the intervention of a wool merchant. The relevance of these structural changes is that they were essential pre-conditions of the re-location of the market for colonial wool from London to Australian centres in the last quarter of the century.

In the worsted industry there were two areas in which specialisation grew: combing became an occupation separate from the rest of the worsted processes; and then spinning was separated from weaving.

The specialisation of combing was fully apparent in England by the middle of the century. It was fostered initially by the patent protection afforded to newly invented machinery; by 1853 Lister had bought out all the English patentees and was allowing only his own machines, leased at high rentals and returning heavy royalties, to be used[1]. Mills established by Lister and his licensees, as well as by other, less monopolistic, patentees like Holden in France, were necessarily on a large scale and specialised. Other factors independently confirmed this trend to specialised

(1) See above, p.42, n.2. Lister charged £1200 for a set of three machines (Southey, op. cit., p.10).

operation of combing mills. In the early years, in particular machine combing presented a complex task, and modifications were constantly being made to adapt the machinery to different types of wool and to the production of different types of tops[1]. Managerial efficiency could not easily be retained when these activities were undertaken in conjunction with those demanded by the operation of a spinning mill. Moreover, once combing costs had been reduced by mechanisation, the value of operating combing machinery lay in the economies of scale; the modifications to machinery and the experience necessary for efficient production were much too costly to be squandered on the few bales a spinner might require combed each day. Moreover, uncertainty about the type of yarn, and therefore of tops, that would be required in the future was another inducement for spinners to have their wool combed on commission when and as they required it or to buy the tops from a comber. This uncertainty grew as the exports of yarn to France and later to other Continental countries and to the English woollen districts increased[2]. Consequently, even after the expiration of the patent protection in 1860 the tendency continued to be towards specialisation.

Developments in another field altogether also hastened the specialisation of top-making. The English wool stapler had occupied an important place in the worsted trade,

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(1) Clapham, Economic Journal, p.519.
(2) Ibid., p.518.

buying, sorting, and re-selling domestic wool to the spinners. The growing scarcity of English wool in the 'fifties induced, and the long credit allowed them by the staplers enabled, the spinners to compete with the staplers and go direct to the sources of supply. The decline in the staplers' importance, initiated in this way, was accelerated by the steadily growing consumption of colonial wool during the late 'sixties. In general terms, the stapler was forced to become a merchant of colonial wool. This new role, however, was undermined in two ways. The growth of the scale on which the worsted spinners were organised made it easy for them to obtain their own supplies direct from the London sales. At the same time spinners tended more and more to buy tops than to have their own raw wool combed on commission(1). The stapler-merchant then added combing to his other activities and sold tops as well as raw wool. At first he had it combed on commission but later he did it in his own plant. This combination of merchant-topmaking served two purposes. It enabled the merchant to retain his trade and, as the wool in the tops was indistinguishably blended, he was in a position to profit perhaps more highly than if clearly identifiable raw wool was sold(2).

(1) Although it is not readily apparent, it is possible that this practice first found extensive favour during the 'seventies when raw wool prices were falling, for by not buying raw wool at all spinners transferred the risk of inventory losses to the merchant-top-makers.

(2) This paragraph is based generally on the work of Clapham (Economic Journal). The full story of the decline of the stapler and the rise of the merchant-top-maker requires a far more complicated treatment than is necessary for our purposes

The second element of specialisation lay in the separation of spinning from weaving. The decline in the importance of the factory which combined spinning and weaving, shown in Table XV, became apparent by the mid-'seventies.

Table XV

Structure of the English Worsted Spinning Industry, 1850-90: Proportion of Plant operated by each Factory Type[1].

Year	Factory Type	Doubling Spindles	Spinning Spindles	Power Looms	Workers
		%	%	%	%
1850	Spinning only	n.a.	48.3	-	28.4
	Spinning & Weaving	n.a.	51.7	60.4	52.2
	Weaving only	n.a.	-	39.6	19.4
1861	Spinning only	n.a.	49.1	-	25.9
	Spinning & Weaving	n.a.	50.9	59.5	58.0
	Weaving only	n.a.	-	40.5	16.1
1867	Spinning only	65.6	55.7	-	33.8
	Spinning & Weaving	34.4	44.3	63.3	52.4
	Weaving only	-	-	36.7	13.8
1874	Spinning only	58.0	50.7	-	33.7
	Spinning & Weaving	42.0	49.3	50.3	45.1
	Weaving only	-	-	59.7	21.2
1878	Spinning only	67.3	54.4	-	30.4
	Spinning & Weaving	32.7	45.6	48.2	45.2
	Weaving only	-	-	51.8	24.4
1885	Spinning only	61.9	57.4	-	32.5
	Spinning & Weaving	38.1	42.6	48.2	43.5
	Weaving only	-	-	51.8	24.0
1890	Spinning only	65.9	60.2	-	34.5
	Spinning & Weaving	34.1	39.8	43.1	41.8
	Weaving only	-	-	56.9	23.7

Some of the factors which produced it were operative, however, from the 'fifties. The growing use of cotton and other raw

(1) Source: Sigsworth, op. cit., p.204.

materials meant that the manufacturer was, in any case, forced to go outside the industry for his supplies and that, therefore, the utility of vertically integrated production had begun to wane. The vast variety of fabrics into which these materials could be manufactured not only tended to narrow the range of products on which any one producer was willing to concentrate[1] but, paradoxically, rendered him more susceptible to the vagaries of fashion, readier to manufacture to order and therefore readier to change, within limits, the style of his produce. This implied that the type of yarn he required was likely to vary quite widely over a fairly short period. It was cheaper to buy yarn from specialised spinners than to install machinery which could cope with that variation. In the 'seventies and 'eighties, however, these considerations were submerged in the far greater influence of the growth of yarn exports overseas and to the woollen districts - an increase in spinning, that is, unmatched by any worsted weaving.

The same tendencies were apparent in the French worsted industry. Before 1860 top-making and spinning were separate specialised processes. The Holden works at Reims was combing wool on commission for spinners in the 'fifties[2]; Merchants were then already adding top-making to their activities (although Holden also did combing for them on

(1) Cf. Sigsworth, op. cit., p.97 ff.

(2) Holden-Illingworth Correspondence, Jonathan Holden-Isaac Holden, 7/6/1859.

commission(1); and the top-makers were doing some merchanting(2). The scale of their operations was also extending. In 1866 at Reims and Croix the Holden works alone produced about 4.5 m.kg. of combed wool - the combined capacity of Reims and Roubaix, the two largest centres, was only about 22 m.kg. in the following year(3).

In France, however, there was a persistent tendency for the processes to be re-integrated during the following forty years. Concrete evidence supporting this assertion is fragmentary at the best. British competition during the 'sixties led spinners to try to add combing to their establishments(4); in 1869 a pamphleteer remarked some factories which took in raw wool and sent out woven products and commented on the rapidly disappearing specialisation in sorting, washing, carding, combing and spinning(5); and between 1867 and 1878 specialised combing was reduced by 25%(6). It is unfortunate that more exact statistics are not available to measure this movement and to separate mere surmise and extended generalisation from actual fact, for the effect of these changes on the scale of production is uncertain. The alternative

(1) Edward Holden-Isaac Holden, op.cit., 7/11/1860.

(2) Isaac Crowthers-Isaac Holden, op. cit., 7/4/1866.

(3) Picard, op. cit., p.349.

(4) Dunham (op. cit., p.154) details the case of a comber who sought a government loan to add spinning to his establishment in order to meet competition. Isaac Crowthers noted the same tendency in Roubaix after 1864 (Holden-Illingworth Correspondence, Crowthers - Isaac Holden, 5/5/1866).

(5) P. Pierrard, Etude sur l'industrie lainiere en France, et les moyens de ramener sa prosperite (London, 1869), p.35.

(6) Picard, op. cit., p.352.

implications differ significantly: either the capitalisation of the firms concerned was roughly unchanged after the transition was made, spinning capacity being reduced to allow the substitution of combing or weaving capacity; or the spinning plant was maintained intact and the firm's size and capital were greatly increased by the addition of other plant.

By comparison with the worsted industry the scale of woollen enterprises in England was small in 1906. It was, however, considerably greater than it had been in 1850. The trend in this industry was the concentration, under one factory roof, of processes which had formerly been carried out by scattered out-workers. This was undoubtedly the result of the gradually extended use of power machinery for spinning and weaving. The Somersetshire serge industry is said to have been fully industrialised by the end of the 'fifties(1); in the Yeadon-Guiseley district in Yorkshire the process of concentration was not complete until the 'eighties(2). What prevented the specialisation of the various branches after they were mechanised was mainly the complexity of the blend of raw materials which the woollen manufacturer used - a complexity which demanded unremitting personal attention in spinning(3).

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(1) D.M. Hunter, The West of England Woollen Industry under Protection and under Free Trade (London, 1910), p.24.

(2) Dobson and Ives, op. cit., pp.43-4.

(3) Cf. Clapham, Economic Journal, p.521.

The very process of concentration tended to increase the economies which could be derived from larger scale production and the size of woollen mills continued to grow during the second half of the century. Inconclusive but suggestive evidence of this may be seen in the nature of the trade between Robert Jowitt & Sons, then wool merchants of Leeds, and their woollen manufacturing customers drawn from all the woollen producing districts. A sample from the firm's ledgers reveals that the average size of purchases made by those customers increased by up to one-third between the mid-'sixties and the early 'seventies(1). This tendency was accelerated during the late 'seventies and early 'eighties by the effects of the competition from the worsted industry. Changing consumer fashion leading to a substitution of worsted for woollen fabrics and the use of an increasing proportion of worsted yarn in woollen products, together with the effect of foreign tariffs, decimated the ranks of the woollen manufacturers. (The survivors rationalised their enterprises and sought in the economies of large scale production the answer to their problems.)

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(1) Thirty-eight firms, selected on a systematic basis, in 1865 bought an average of 35.9 bales from Jowitt; twenty-five selected in 1872 bought an average of 43.9 bales. Ten other firms in 1865 took an average of 38.6 bales; the same ten firms in 1872 took an average of 52.2 bales. There are obvious dangers in generalising from these samples, for the statistical population is very small, and they may represent simply the nature of the specific business of Jowitt & Sons - the clients, that is, do not necessarily form a representative selection from the industry. (This information is taken from the ledgers in the Jowitt Records, an immensely valuable collection in the Brotherton Library, University of Leeds. I am indebted to the firm, now in Bradford, and the Librarian for permission to use them.)

By the early years of the twentieth century the growth of concentration had progressed so far under the dual influences of industrial mortality and the economies of large scale that, to take an extreme example, one firm produced four-fifths of the Somersetshire woollen output(1).

In 1904 the President of the Elbeuf Chamber of Commerce said "Twenty five years ago we were two hundred and fifty manufacturers... We have been forced either to start large establishments or vanish... Today there are but thirty five concerns"(2). Both this end-product and the intermediate stages in the process of concentration and growth of scale in France paralleled those in England. The rate of mechanisation was slower and in 1878 French mills were reported to be smaller than those in England(3). In 1870 the Reims woollen industry was still only partly centralised and some spinning and weaving was done as out-work in the surrounding villages(4); in 1878 the use of hand mules and looms was still common(5). The acceleration of the trend to concentration came partly from the effect of worsted competition and partly from a more direct incursion of worsted manufacturers into woollen production. The distinction between regional specialities became a difficult one to draw. In the late 'eighties Tourcoing, one

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(1) Hunter, op. cit., p.49.
(2) Quoted in Hunter, op. cit., p.60.
(3) Wrigley and Bousfield, op. cit., p.7.
(4) Dunham, op. cit., p.225.
(5) Wrigley and Bousfield, op. cit., p.13.

of the worsted districts, began producing woollens[1]. The same broad development was also observable in Belgium. In 1846 the number of woollen and worsted factories was estimated at 544, the average employment being 30.4 workers; in 1896 there were only 244 factories, but they employed an average of 73.3 hands[2].

4. Australian Wool and competing fibres.

The discussion has proceeded so far as if Australian wool were the main one which entered into the consumption of the European wool textile industries. We must now take into account the fact that these countries produced their own wool and that the other new countries of the southern hemisphere were also exporting vast quantities of wool to Europe. That the developments outlined above in section 3 also influenced the marketing organisation relating to South American and South African wool does not make them any the less important as far as Australian wool was concerned. The relevance of other sources of wool supply lies, of course, in the fields of comparative consumption and price determination.

It is proposed here simply to identify the main sources of competing wool supplies, to examine the degree to which those wools were substitutable with Australian wool, and to inspect the effect of competing fibres like cotton, silk

(1) J.H. Clapham, The Economic Development of France and Germany, 1815-1914 (Cambridge, 4th edition 1936), p.250.
(2) J. St. Lewinsky, L'Evolution Industrielle de la Belgique (Paris, 1911), p.320.

and mohair which were used in wool textile activity.

In the first place it must be noted that the consuming countries themselves produced a large proportion of their raw wool requirements. It amounted to 78% in 1860, nearly 57% in 1875 and 48% in 1885[1]. A more extensive comparison

Table XVI

Estimated Quinquennial Wool Production and Consumption in the Main Consuming Countries, 1875-1900[2].

(Note: Production appears in columns A, consumption in B.)

Year	Germany		France		Austro-Hungary		Italy		United States		United Kingdom	
	A	B	A	B	A	B	A	B	A	B	A	B
	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.	lb. m.
1875	83	150	n.a.	376	n.a.	n.a.	n.a.	n.a.	197	232	162	340
1880	n.a.	181	n.a.	403	50	38	22	38	232	357	149	355
1885	58	248	104	439	n.a.	n.a.	n.a.	n.a.	308	375	136	346
1890	n.a.	307	130	462	35	57	n.a.	n.a.	276	378	138	407
1895	32	414	91	507	n.a.	n.a.	21	49	310	509	135	480
1900	28	316	86	447	n.a.	n.a.	n.a.	n.a.	289	437	141	474

of domestic production and total consumption in the main consuming countries is made in Table XVI. Though the coverage is disappointingly incomplete, the decline in home

(1) Calculated from estimates of production and imports in Helmuth Schwartze & Co., op. cit.

(2) Source: Production of all countries, and consumption of Austro-Hungary and Italy: Tariff Commission, op. cit., para 1509-10, Tables 1 and 2.

Consumption in Germany, France, United States and United Kingdom: Statistical Tables and Charts relating to British and Foreign Trade and Industry (1854-1908) (Cd.4954, 1909), Table 75.

The Tariff Commission figures include alpaca, vicuna etc. consumed, which are excluded in the Board of Trade estimates.

production and the increasing reliance on imported wools, even in the United States, is most noticeable. Despite the fact that the proportion of requirements met from domestic sources was a declining one[1], it nevertheless posed a weighty competitive problem for the producing countries, particularly in the early years when manufacturing techniques were still primarily geared to treating the domestic wools. What caused European production to fall was, of course, the growing bulk and relative cheapness of supplies from the new countries, and the diversion of European pastoral lands to other purposes including meat production. In England, production tended first to be diverted into long wool suitable for combing (a temporary product of the shortage of those wools during the 'fifties and 'sixties) and then to decline entirely as it was supplanted by colonial wool for both woollen and worsted production. In France and other Continental countries events followed a similar course. As early as 1816 the French merino producers had successfully sought protective tariffs against more cheaply produced foreign wool[2]. By the middle of the century antipodean competition was already making serious inroads on the markets of the domestic wool grower and demands

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(1) The actual decline is exaggerated because the wool has been measured in the greasy state. On a greasy basis the consuming countries provided 55% of their requirements in 1877; but on a clean basis it was 61% (A. Sauerbeck, op. cit., p.17). The difference arises from the greater quantities of dirt and foreign matter in wools from the Southern Hemisphere.

(2) Dunham, op. cit., p.216.

for a re-imposition of tariff protection became increasingly frequent - in 1870 and 1890 for example[1]. The difficulties of the industry seem to have arisen primarily from the competition of the imported wools, from the increasing shift to meat production and from the growing French demand for wool suited to relatively coarser cloths[2].

The Australian wool grower was in more direct competition with the producers of the new countries. As Table XVII indicates the expansion of Australian output in the context of the world market was a large and rapid one, but in the thirty five years after 1850 the Australasian contribution to

Table XVII

Australasian Wool in the World Wool Trade, 1850-1886[3].

Year	Australasian wool as a percentage of the total supply available for consumption in Europe and North America.		Australasian wool as a percentage of all wool imported into Europe and North America.	
	Raw wool	Clean basis	Raw wool	Clean basis
	%	%	%	%
1850	4.9	4.4	39	41
1860	6.2	5.7	29	30
1870	13.4	13.3	36	42
1880	18.8	16.8	40	42
1886	22.4	20.1	43	46

(1) Dunham, op. cit., p.224; France, Conseil Superieur du Commerce et de l'industrie, Enquete sur le regime douanier (Paris, 1890, 4 vols.) Tome 3, p.79 contains a request for duties on wool which was made by La Societe d'Agriculture de la Nievre.

(2) The term "coarser" is, of course, a relative one and refers here mainly to the abandonment of the almost exclusive devotion of the French industry to fine luxury goods which existed before the 'forties and 'fifties.

(3) Source: Calculated from Helmuth Schwartze & Co., op.cit.

European and North American imports of raw (greasy) wool rose only from 39% to 43%. In a world context, that is, her expansion was neither spectacular nor unique. The production of the Argentine, New Zealand and, to a slighter extent, of South Africa rose at rates comparable to that of Australia. The output of these countries is compared in Table XVIII.

Table XVIII

Quinquennial production of raw wool in the new countries, 1860-1900(1).

Year	Australia	South America	South Africa	New Zealand
	lb.m.	lb.m.	lb.m.	lb.m.
1860	59	43	26	6
1865	109	137	33	19
1870	173	197	43	37
1875	258	220	51	54
1880	354	256	60	67
1885	376	356	50	86
1890	462	n.a.	n.a.	103
1895	617	n.a.	n.a.	116
1900	445	n.a.	n.a.	141

Argentine production only began to expand from the mid-'fifties, when the sheep population was sixteen million, and until the late 'seventies and early 'eighties the merino type breed predominated. Between 1877 and 1884 very wet weather caused heavy losses among merino stock while creating

(1) Source: Australia: Bureau of Agricultural Economics, op. cit., p.21, Table 26;
South America and South Africa: Helmuth Schwartze & Co., op. cit. It is regretted that production figures for these countries could not be located in time to be included.
New Zealand: New Zealand Year Book, 1903.

conditions in which the Lincoln and other long-woolled sheep thrived[1]. At the same time the cross-bred wools were rising in price in the European markets[2] and the European demand for meat was being appreciated in the pastoral countries. In 1883 the first extensive plants for treating frozen meat for the English market were completed[3] and in the following year the fall in merino wool prices became steeper. Under the impact of these two forces the composition of the Argentine flocks changed drastically. Between 1888 and 1893 fifty million merino sheep were replaced by pure- or cross-bred long-woolled animals; in 1893 it was estimated that half the Argentine flocks owned to at least one crossing with the Lincoln or Leicester breeds[4]. (One by-product of the importance of meat exports to the Argentine pastoral industry was the high proportion which woolled sheep-skins bore to total wool exports.) In New Zealand on the other hand the merino sheep had never been raised extensively. Climatic conditions, as well as the contemporary shortage of English type combing wools, led to the introduction of the English breeds. The development of frozen meat exports meant a further increase in cross-breeds with large carcases and long relatively coarse wool. Sheep run by

(1) H. Gibson, The History and Present State of the Sheep-breeding Industry in the Argentine Republic (Buenos Aires, 1893), p.37.

(2) See below, Chart II (p.342) for the movements in the prices of one type of Australian crossbred wool. The prices of other crossbred varieties, including the South American, exhibit the same general features.

(3) Gibson, op. cit., p.160. By 1893 there were five freezing works having a total annual capacity for three million carcases.

(4) Ibid, p.41.

white South Africans were mainly of the merino type, but some coarse (non-English) breeds were raised by natives; the production of mohair became substantial after 1877, rising from 1.4 million pounds in that year to 17.5 million in 1907[1]. South American wool until the late 'seventies and South African wool until nearly the end of the century appear generally to have been of relatively inferior qualities within their breeds - carelessly raised and indifferently presented.

In general terms the competition between Australian wools and these different wool types was of a limited nature. Until the early 'seventies the use of imported wool by the English worsted industry was restricted to some very long Australian wool. The English woollen industry used short Australian merino. The French worsted industry used merino which was slightly longer, together with relatively small quantities of very short staple. This meant that, while the borders between the three types of wool were not sharply defined, the three industries did not generally compete for the same types of Australian wool. However, the English worsted processes used very large quantities of English wool, which was in fact preferred; the woollen industry used domestic carding wool as long as it was available; and French combers also used French, South American and South African merino. With these wools the relevant types of Australian wool were more or less satisfactorily interchangeable.

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(1) F.B. de Beck, Le Commerce International de la Laine (Geneve, 1926), p.110.

After about 1870 the range of practical substitution was extended. The English worsted industry began to use shorte Australian merino, and it utilised the Australian and New Zealand cross-bred wools; the French also took to colonial cross-bred; the German worsted manufacturers began to supplement their domestic wool and their imports of South American wool with Australian combing merino. In the woollen industries, some South American merino was added (in increasing proportions after the 'eighties) to Australian in England, certain types of superior fine short Australian wool were added to the French consumption of domestic and South American merino and to the German use of domestic and Cape wools.

Despite this tendency, the areas of specialised use remained large. Belgian scouring, combing and carding was predominantly confined to South American wool; the success of her manufacturers was not as readily attained with Australian varieties. Though considerable quantities of colonial wool were imported there it was generally processed to the specific requirements of other European industries. German and even French woollen manufacturers, while they did use Australian wool, relied more heavily on South African and South American wool respectively. Moreover, within the various national wool textile industries regional and individual requirements were greatly specialised. At the end of the century, for example, the West of England woollen industry used Australian wool almost exclusively, while the North Country made extensive use of South American supplies. Some

regions, and many individuals, concentrated on the production of one type of fabric - blankets, tweeds or superfine cloths - or on production for one particular market.

Australian wool also competed with other fibres. The use of shoddy (wool reclaimed from old woollen cloths) in the woollen industry increased rapidly after 1850. It provide an ever-ready means whereby manufacturers, by varying the content of shoddy and therefore the quality of their product, coul offset high prices for Australian clothing merino. Australian wool utilised in the worsted industries came into direct competition with cotton, mohair, alpaca and silk. Though the use of these materials was frequently complementary to the use of wool - one of them being used in either the warp or the weft and wool completing the weave - changes in relative prices or in fashions could, at times, lead to the production of different fabrics employing, for example, a silk warp and cotton weft. In a wider context, of course, all wool textiles were substitutable with cotton and linen wares, but a detailed consideration of these aspects of Australian wool's position in the textile world is beyond the scope of this study.

It appears, in general, that with respect to competition with other wool fibres Australian wool enjoyed a fairly comfortable position until the early 'seventies. Marginal substitutions of different wool types within and between the English and more particularly the Continental industries before that date tended to impose a broad uniformity on the price movements of wool from different countries. Bu

within that limitation divergent movements were common and often long-lived. Specialisations in raw material utilisation and in the finished products tended to make movements in the prices of national wool varieties less dependent on gross fluctuations in world wool production and consumption and more closely associated with sectional variations in the supply of wool from particular regions and in the demand for particular types of wool textile products and the industrial conditions in certain manufacturing regions[1]. At the same time the broad effects of the use of non-wool fibres was complementary rather than competitive. The coincidence, from the 'seventies, of a significant extension of the substitutability of other wools for Australian - a more general competition between wools from most producing countries in fact - with the apparent satisfaction of world demand for raw wool may have played a considerable part in the relatively greater decline in merino than in cross-bred prices during the last quarter of the century.

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(1) This specialisation, and its results, can easily be overstated, but used cautiously the broad generalisation is a valuable one. One of the main facts which might be thought to invalidate it - the fact that during a drought confined to one country or one area the price of wool from that region does not often rise - is explicable on entirely different grounds. The drought, besides reducing the output of that area also produces an inferior product - tender and dirtier than usual - which naturally commands a lower price than the normal quality.

II. THE INSTITUTIONS OF THE MARKET.

Chapter 3.

The Marketing Pattern.

The Australian wool trade is, above all, one in which the rationale of a highly developed chain of middlemen finds almost classical expression - long distances separating large numbers of small-scale, geographically scattered producers from a numerous body of small scale consumers. During the nineteenth century the patterns linking the production and consumption of colonial wool were changed basically as the structure of the pastoral and wool textile industries altered, as improvements were effected in transport and communications and as the financial institutions serving the trade were developed. The nature of these changes forms one of the fundamental features of the history of the wool market during that period.

In the 1840's perhaps 50% of the clip was disposed of at the central auction sales in England on behalf of colonial general merchants who purchased it from the growers; 30-40% was consigned to England through general colonial agents for sale there on the growers' behalf; and the remainder was shipped directly by the growers themselves. By the 1860's some 80% was consigned for sale in England at the growers' risk largely through specialised wool consignment agencies. At both these periods distribution to the consumer was effected in two ways. Manufacturers either purchased their wool,

personally or through their agents, at the central sales or they were provisioned by wool dealers who also secured their supplies at the sales. By contrast, in 1900 one half of the Australian production was sold by auction in the colonies, through specialised selling agencies, to foreign consumers and dealers, and only 30-40% consigned to England through the specialised consignment agencies.

The changes, in other words, embrace three separate though related aspects of the marketing network. The methods by which the growers disposed of their clip changed; the point of disposal was altered (this process is considered more fully in Chapter 7); and the structure of the middleman organizations was reshaped. Growers sold first to general colonial merchants and later consigned their wool to England; London gave place to the main Australian cities as the location of the major primary market; general colonial merchants acting incidentally as middlemen in the wool trade were succeeded by large scale specialised concerns.

It is proposed, in this chapter, by identifying the groups of middlemen through whose hands the wool passed, their nature and their place in the trade, to outline the marketing system and to define the points at which change occurred. As one of the central problems of the market was that of linking widely separated consumers and producers the incidence of marketing risks at the point at which the wool left the colonies is a focal one. It is therefore convenient to consider separately the course which the wool followed before and after its shipment.

1. Marketing within the colonies.

By 1840 the marketing system was already changing rapidly. During the 'twenties and 'thirties its organization i the colonies had been, by later standards at least, a haphazard disordered affair. Most growers sold their wool to general colonial traders who shipped it to business acquaintances in England for sale on their own account. This method of disposal was clearly enough defined. Yet the insignificance of the colonial contribution to total raw wool supplies available in England and the consequently small interest taken in it by English wool dealers and consumers, and the extent to which it depended on a colonial mercantile community which was small, inexperienced and cramped by the lack of facilities, together meant that the disposal itself was insufficient and undependabl

In this context, it will be argued below (chapter 6) the pastoral expansion of the 'thirties and 'forties had two main implications. It meant, firstly, a growth in colonial production for the purchase of which mercantile resources proved quite inadequate. The expansion itself was largely base on the activities of a new class of pastoral occupiers, recentl migrated from England and having, in many cases, substantial capital backing. The first of these attributes implied that they had relatives or friends in England who might act on their behalf; the second freed them from an entire dependence on a quick local sale to provide them with funds. This meant that many growers were in a position to consign their clips to England in the same way as the merchants did.

These two broad alternatives - sale in the colonies or consignment to England - remained open to them throughout the century. Our task is to trace how each of them, and the relations between them, changed. Though they are related, and in many respects similar, the two courses are by no means parallel. Consignment replaced the local disposal of wool in the middle of the century, but by the 'nineties local sales were once again the predominant form of marketing.

a. Local selling, 1840-55.

As early as 1819 a certain Raines advertised his willingness to pay 10d. per lb. for wool delivered at his Sydney store, washed before shearing and duly tied in separate fleeces(1). During the 'twenties and 'thirties other merchants like Robert Campbell & Co., Aspinall, Browne & Co., J.B. Montefiore & Co. and C.W. Roemer offered similar facilities(2).

By the 'forties the number of firms prepared to buy wool in the colonies had grown impressively. Many of them were general import-export merchants, whose interests covered

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(1) Quoted in J. Bonwick, Romance of the Wool Trade (London, 1887), p.199.

(2) Newspaper advertisements provide a rich source of information of the participants in the trade. See for example the Sydney Herald 1/1/1835, from which these illustrations are taken.

the whole range of the colonies' imported requirements[1]. In Sydney firms like Griffiths, Gore & Co. (later Griffiths, Fanning & Co.), Lamb & Parbury and Cooper & Hunt stood to the fore among the wool buyers. Similarly in Melbourne Griffiths Borrodaile & Co. (later Dalgety Borrodaile & Co.)[2], and in Van Dieman's Land James Henty & Co.[3] acted both as wool buyers and general import merchants. Other extensive purchases were made in Van Dieman's Land by H. Hopkins whose activities extended, through the grocery firm of Annand & Smith, to Port Phillip[4]. Other buyers, like S.A. Bryant in Sydney, were shipping agents, an occupation frequently shared by the merchants already mentioned[5].

This wide combination of activities is no less than one might expect in the commercial circumstances of the colonies. Both the population and the mercantile community were small. A large trading concern was, of necessity, one whose

(1) A random examination of the advertisement columns of the Sydney Herald during 1842 reveals the following sample illustrations of the diverse trading activities of merchants who also bought wool: A.B. Smith & Co., ship's agents, importers of sherry and other goods; Lamb & Parbury, importers and sellers of spirits and tobacco, coffee, sugar and tea, shoes paper and oil, cloves iron and starch; Campbell & Co., importers of Sourabaya sugar and other goods; G.L. Robinson, gin, Van Dieman's Land potatoes, etc.

(2) John Cotton of Port Phillip had extensive dealings with the firm. See his letter to his brother William, December 1843. As the "John Cotton Letters" this, with others, is reprinted from the originals in the possession of the Hon. W.C. Russell Clarke in R.V. Billis and A.S. Kenyon, Pastures New, (Melbourne, 1930).

(3) M. Bassett, The Hentys (London, 1954) passim.

(4) A. Joyce, A Homestead History, being the reminiscences and letters of Alfred Joyce of Plaistow and Norwood, Port Phillip, 1843 to 1864. Ed. G.F. James, (Melbourne, 1949) p.76.

(5) During January 1842 the following shipping agents advertised as wool buyers in the Sydney Herald: S.A. Bryant & Co., Gilchrist & Alexander, A.B. Smith, Ramsay Young & Co.

capital was distributed over a number of fields in none of which large scale specialisation was profitable. Successful trading and a large business implied the performance of whatever agency could be obtained - whether it was that for a shipping company, an English distiller, or a milliner - and it meant an eye on every market. Until the 'forties it could also mean participation in the disposal of colonial wool.

To indicate the importance of general merchants as wool buyers, and to emphasise that the greater part of the capital which could be used for this purpose was in their hands, does not, however, imply their complete domination of the field. One might almost say, in fact, that wool purchasing appealed to all who possessed the means to buy it and access to channels of disposal. In Van Dieman's Land wealthy graziers are alleged to have bought the clips of their less wealthy neighbours(1) while in Sydney T.U. Ryder was prominent among those who were not importers(2).

The buyers' contact with the growers during the 'thirties and early 'forties was frequently on the main roads leading into Sydney, in the taverns on the roadside and on the camping grounds in the Haymarket or the Quay. There they inspected the wool laden high on the bullock drays making their long annual journey into town to deliver the clip and take back

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(1) J. Bonwick, op. cit., p.224. Though reported second-hand from an unnamed work published in Calcutta in the 'thirties or 'forties, it fits the known pattern in N.S.W. well.

(2) A commission agent selling livestock and real estate, some of his notices may be found in the Sydney Herald, 1/1/1842 and 7/1/1842.

supplies for the following year. Romantic accounts of the competition between buyers, and the haggling between buyers and draymen are sufficiently plentiful to make any elaboration of the selling procedure unnecessary here[1]. The essential point is that the sales were effected directly between buyer and grower, in an atmosphere of mutual distrust and without the benefit of a scale of values other than that imperfectly derived by the buyer himself from reports of the previous year's sales in England.

However, the geographical expansion of the industry increased the hazards, the difficulties and the expenses of transporting the wool to the cities. For some growers this problem was overcome by the addition of new links to the marketing chain. Following precedents established by the sporadic operations of Matthewman and Roberts and Charles Sims from the early 'thirties at least,[2] buying activities were extended to country towns. Growers were consequently able to dispose of their clips to firms like Syers Bros., who had establishments in both Sydney and Bathurst[3]. Most growers,

(1) Cf. S.H. Roberts, The Squatting Age in Australia, 1835-1847 (Melbourne, 1935), pp.422-3 for a graphic description of roadside selling in the 'twenties and 'thirties, a description which is equally applicable to the years up to the mid-'forties.

(2) Matthewman & Roberts operated in Bathurst (Sydney Herald advert. 3/9/1832), Charles Sims in Nepean, Bathurst "and surrounding district" (Sydney Herald advertisement 8/1/1835).

(3) Sydney Morning Herald, 14/11/1842, advertisement. Later in the century small country buyers - storekeepers, commission agents, stock agents etc. - assumed some slight importance as intermediaries between the very small scale agricultural producers in parts of Victoria and the market in Melbourne (Cf. Royal Commission of Agricultural & Pastoral Lands, Report & Minutes of Evidence, Proc. Victorian Legislative Assembly, 1879/80, Vol. 3, passim.)

however, turned to using public carriers who were located in the main rural centres. They began to employ the country storekeepers and stock salesmen as agents to arrange transport for them. In this capacity the country agent came to exercise a considerable importance, by the third quarter of the century, often providing the first link between the grower and the market.

In the 'thirties and 'forties, however, the important implication of the use of public carriers and transport agents was that it became less usual for the grower to accompany the wool to the city. The type of roadside transaction described above was essentially one of personal contact between the grower and the buyer. An intermediate agent was now needed in Sydney or Melbourne to undertake the sale for him.

In one way this simply meant the extension of functions previously undertaken by certain traders in those cities, for when dissatisfied with offers made on the roadside growers had been accustomed to placing their wool in the hands of storekeepers who conducted subsequent negotiations for them(1). The increased demand for these facilities in the 'thirties and 'forties, however, led to a certain degree of specialisation and the provision of more appropriate institutions. In Sydney, Samuel Lyons opened his stores for the auction of wool in the early 'thirties, offering free storage and an advance before the sale, and charging a commission of 5%(2). In 1844 the Australian Oxen Company commenced auction sales of wool and

(1) Roberts, loc. cit.
(2) Sydney Herald, 1/1/1835.

pastoral property[1] and in 1845 Sydney witnessed a veritable scramble to offer auctioneering facilities for wool. Lyons reduced his selling commission to 1%. Stubbs lowered his to ½%, an offer which was closely followed by the almost lyrical appeal of M. Pyric[2] -

> To Wool Growers, Settlers Etc.
> The undersigned begs to intimate to the above that having for some time observed with deep regret how seriously their interests have suffered by the incompetence and general want of intelligence of the Auctioneers entrusted with the sale of their produce, he has been induced to come forward (his numerous other professional engagements notwithstanding) and offer those services which he flatters himself the public generally well know how to appreciate.
> In order to the more effectual accomplishment of the object he has in view, he proposes, not only to throw open for their gratuitous accommodation his Mart and Stores, but also to devote a large portion of his own dwelling to such of their body as may be desirous of availing themselves of his hospitability.....and as the object of the undersigned is rather to protect and advance the interests of those to whom this advertisement is addressed than to derive immediate personal gain from their patronage
> <u>One sixteenth per cent</u>
> will be the entire charge made and he therefore anticipates that the Mart will be the channel through which their favours will abundantly flow.

In Melbourne, Isaac Hinds and the Bakewells were holding periodical auctions of wool during the mid-'forties[3]. The significance of these concerns, which were in fact the forerunners of the specialised wool selling brokers like Richard Goldsbrough and T.S. Mort, lies partly in the fact that they did force, to some extent, a degree of regularity and

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(1) R.B. Skamp, The Wool Trade: <u>Its History and Growth in Australia and Tasmania</u>, (Melbourne, n.d.), p.13.

(2) <u>Sydney Morning Herald</u>, 16/10/1845.

(3) Skamp, <u>op. cit.</u>, p.13.

orderliness into the transactions between grower and buyer and partly that, in the changed conditions of transport, they allowed this contact to be made at all.

It is unlikely, however, that wool auctioneering would have become so popular an occupation had this been the only basis of its expansion. There were also important changes in the demand for wool which reinforced its effects. The mercantile group of buyers already discussed was too small and possessed insufficient resources to have operated on a scale appropriate to the augmented supply, even that part of the supply which was offered locally(1). The expansion of auctioneering accommodation was partially made possible by, and in turn itself facilitated, an influx of new buyers whose activities supplemented that of the merchants. It is possible to distinguish four groups of buyers in the late 'forties: professional wool dealers, professional wool speculators, professional speculators, and the mercantile buyers.

Increasing quantities of colonial wool of steadily improving quality had been one of the factors which enabled it to attain a most important position in the English wool textile industries. That position reinforced the speculative opportunities offered by purchase in the colonies for resale in England. Professional wool dealers purchased clips not suitably prepared for the English market. They processed them,

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(1) It will be argued below that the growth of production far outran the expansion of facilities, and possibilities, for sale within the colonies, and that the inadequacy of the local market was one reason for the change to the consignment technique of export. Local sales nevertheless rose during this period.

either by scouring or by sorting and repacking together wool from a number of clips. James Johnson, Clissold & Hill, the Hon. Saul Samuel and the Yorke Brothers operated some of the scouring works in the Sydney district and helped swell the demand for wool in the colonies(1). Apart from some very small and irregular purchases for manufacturing purposes in the colonies(2) the only local processing to which wool was subject was that designed to increase its value at the London sales. This applies as much to those services of wool-classing, sortin and packing which were rendered to growers and woolbuyers(3) as to the activities of the processor-buyer.

There were also a number of professional wool speculators. Andrew Hinchcliffe, in addition to his interest in the scouring works at Waterloo, acted on behalf of principal in England(4). For them he bought parcels for resale in England, where they became part of the general speculative

(1) W.H. Chard, op.cit., p.16. R.J.W(ithers) in a series of articles published in the Sydney Daily Telegraph, 20/9/1913, 27/9/1913, 10/10/1913, 25/10/1913 and 14/11/1913, under the title "The Romance of Wool Selling", recounts that Johnson in a two year period handled over 8,000 bales and doubled the Sydney price on every lot but one when sold in London; on that lot the London price was two-thirds greater!

(2) See, for example, the advertisements for wool inserted by Uther's Hat Manufactory and E. Hunt's Upholstery Warehouse, Sydney Herald, 13/2/1832.

(3) See below, chapter 4.

(4) Chard, op. cit., p.16; H. Austin "Recollections of the Australian Wool Trade", Australian Country Life (Sydney monthly) June, 1906. This forms part of a series of the reminiscences of the then doyen of the Australian wool buyers, which were published in this journal between May, 1906 and September, 1907.

holdings, purchased in England and on the Continent, in which they specialised. Similarly Rudolph Kummerer made speculative purchases on behalf of a group of Europeans resident in London[1]. James Sanderson, representing Sanderson & Murray of Galashiels is not entirely typical of this group. Though the major part of his purchases were resold on the London market, some was sent directly to the warehouses of his Scottish principals[2], anticipating a type of purchase which did not become common for another twenty-five years. It is worth noting that in 1854 France made an essay of the colonial market which seems to have gone unnoticed. H. Noufflard announced that he wished to buy for resale by public auction at Rouen, and for this purpose had laid on a ship to transport the wool there direct[3].

A further group of buyers were professional speculators, akin both to the general merchants and to the wool speculators, but not primarily or even largely concerned with wool transactions. As a group they comprised those who were able and willing to undertake speculative activities in any of the numerous fields which were available and to whom wool was merely one of those fields. One of them was James Milson[4]. A former partner in the general import-export firm of Robert Campbell Junior & Co., Milson was quick to take

(1) Austin, op. cit., May 1907.
(2) Ibid.
(3) Sydney Morning Herald, 20/12/1854.
(4) R.H. Goddard, The Life and Times of James Milson, (Melbourne 1955), p.181 and chapter 17, passim.

advantage of the opportunities offered by the discovery of gold and during the 'fifties made substantial profits by purchasing it for shipment to England. By 1856 he had extended his operations to speculative share dealings and was a member of the Sydney Stock Exchange. It was this interest in, and an eye for, a worthwhile risk that led him to wool-buying. Receiving two-thirds of the profit, Milson provided the finance enabling John Chase to purchase wool in the country and resell it in Sydney. It is obvious that the opportunities created for Milson and Chase, as well as for T.U. Ryder[1], to purchase in the country were the product primarily of the geographical expansion of the pastoral industry, for their clients were usually small growers who would have sold their clips in Sydney or Melbourne and who were easily persuaded to forgo the costs and responsibility of the carriage. Others with Milson's instincts, keenly followed the sales in Sydney and purchased for resale in England whenever the market held prospects of unusual speculative profits.

Despite the dynamic importance of professional wool processors and dealers, of professional wool speculators and professional speculators, the major group of buyers in the early 'fifties remained the colonial merchant and importing houses. It is indicative of their importance that Richard Goldsbrough was using the customary form when he addressed the announcement

(1) Cf. Black Papers, A.C. Dunlop - N. Black, 8/4/1851. The Black Papers comprise an immensely valuable collection of letters to and from Neil Black between 1839 and 1880 housed in the Victorian Public Library. I am indebted to the librarian for permission to quote from them and for facilities which made it possible to examine the collection before the vast task of indexing it was completed.

of the opening of his wool sorting and packing establishment in Melbourne to "Merchants, Settlers Etc."(1) In Tasmania, where the aggregate output was smaller than in the mainland colonies, a considerable proportion of the total clip was still being sold to merchants(2). In Melbourne, firms of the stature of William Degraves & Co. and J.B. Were sought to buy wool(3). Similarly in Sydney merchant houses - Prince Bray & Ogg, Gilchrist & Watt and Scott, Henderson & Co. are examples - provided a regular core of buyers at the auction sales, while others like Cooper & Hunt and Chris. Newton & Bro. bought occasional parcels(4). In order to compete with the growing demand from specialised wool dealers they were forced to improve their own technical efficiency. Robert Campbell applied to a London wool broker early in the 'forties for help in securing a competent wool buyer and sorter(5), having already employed G.F. Dixon one of the more noted of the early buyers(6).

(1) Melbourne Argus, 12/9/1848.

(2) Cf. S.S. Smith, Important Suggestions for a Better Development of Colonial Wool and Leather etc.,(Hobart, 1857), pp.39-40. Considerations peculiar to the island retarded the development of the consignment system.

(3) See their advertisements in the Argus, 12/11/1852 and 18/9/1852 respectively. Were Bros. & Co. bought wool from its formation in 1840 (J.B. Were & Son, The House of Were, 1839-1954, (published privately in Melbourne, 1954), p.15); a decade later, as J.B. & G. Were those activities were extended to Sydney.

(4) Austin, op. cit., May and June, 1906; Withers, op. cit., 10/10/1913.

(5) T. Shaw, The Australian Merino: Being a Treatise on Wool Growing in Australia, Melbourne, 1849, p.4. Shaw had been a wool purchaser for J.T. Simes in London before coming to Campbell.

(6) Withers, op. cit., 10/10/1913. Dixon later bought for Gilchrist & Alexander.

Other firms, including Price Bray & Ogg, Scott Henderson & Co. and later Gilchrist & Watt & Co., strengthened their partnerships by the inclusion of a skilled wool buyer(1).

The motives actuating these merchant purchases were a combination (inseparable probably) of speculation and a desire to acquire foreign exchange. At a time when the foreign exchange market was still very rudimentary, wool bought in the colonies and resold in London provided sterling funds which were otherwise obtained only with difficulty. This certainly provided the main motive of the merchant buyers in the 'twentie and early 'thirties. The formation of Anglo-Australian banks and trust companies in the 'thirties eased the position slightly, but the relief was temporary and the banks were disinclined to participate widely in foreign exchange transactions(2). Consequently the direct purchase of wool bills and wool was an essential incident to importing(3). Wool bills were relatively cheap during the short exporting season, but they fel due in London within a similarly short period. An evenly distributed flow of cheap foreign exchange might be acquired by purchasing bills at their cheapest, buying wool at the height o the season and shipping it to arrive at staggered intervals afte the bills fell due, and then buying more wool towards the end

(1) Withers, op. cit., 10/10/1913. Bray bought for Prince Bray & Ogg, Scott for Scott Henderson & Co.

(2) Cf. S.J. Butlin, Foundation of the Australian Monetary System 1788-1851 (Melbourne, 1953), chapter 13 passim. The completion of the process of transferring the capital of these concerns to the colonies may provide one reason for the enhanced interest in wool auctioning in the 'forties.

(3) The extent may be gauged from the evidence of J.C.McLaren, L. Duguid, W.H. Mackenzie and A. Walker before the Select Committee on the Debenture Bill (N.S.W.V. & P., 1841).

of the selling season to provide funds when exchange was most difficult to obtain. Not only importers but anyone with funds to remit to England found wool attractive as the vehicle[1]. Wool, as distinct from wool bills had of course the added lure of the speculative gain. Even as late as 1855, when one might have expected that the export of gold would have had a considerable effect on the exchange facilities[2], a Melbourne wool selling broker issued the following significant report on end-of-season supplies[3]:

> There have been many enquiries after full stout-bodied wools for shipment per Marco Polo by parties desiring such for remittances, which is certainly the most legitimate mode of disposing of this portion of our colonial produce...

By the middle of the century, then, that portion of the clip which the growers disposed of in the colonies followed a well defined course. The greater part was sent from the country to Sydney and Melbourne where auctioneers offered it

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(1) Emigration bounties were remitted in this fashion (Evidence of A. Walker before the Select Committee on the Debenture Bill); the proceeds of the Redfern estate were remitted to James Alexander, the widow's second husband, in the form of wool bought by P.B. Whitfield who was sent to N.S.W. for that purpose (Withers, op. cit., 8/10/1913); Bonwick, op. cit., pp.224-5, quoting the Calcutta source already mentioned reports that wealthy Tasmanian graziers had frequently had the proceeds of their clips remitted to them in the form of slops and station requirements which when sold in the island returned good profits

(2) Gold, as well as tallow, wool and later silver, was of course sought by merchants as a source of exchange. Possessing a more stable and publicised value, however, gold was less attractive unless bought at the point of production from miners willing to accept a discount.

(3) P.N. Walker in the Argus, 21/7/1855.

at periodic sales to merchants, speculators and processors. Some was still sold privately either to buyers who visited the stations or in response to newspaper advertisements in the towns.

b. Consignment, 1840-1900.

In the eighteen-fifties, however, the greater part of Australian output remained the property and was held at the risk of the growers when it left the colonies. It was consigne for sale on their behalf at the London auctions. This system of disposal was the dominant one between the 'forties and the 'nineties. During those years the export organisations were refined and became more efficient as specialised concerns replaced general ones and as the provision of financial services became more closely tied to the performance of exporting functions.

Basically export consignment implies the employment of an overseas agent to whom a shipment of goods is addressed and to whom is entrusted their sale on the exporter's behalf. The Australian wool trade reveals few examples of this minimal form. Some growers did arrange their own shipments to friends and business acquaintances[1] - more commonly in the 'thirties and 'forties than later - and large corporate producers like the Australian Agricultural Co., the South Australia Co., and

(1) Neil Black, a Victorian settler, consigned his wool to the Liverpool firm of Gladstone and Sargeantson, lawyers. T.S. Gladstone was one of the three British partners in Neil Black & Co., formed in Scotland in 1839. Black as managing partner operated the pastoral property in which the concern's capital was invested. Numerous account sales of Black's wool indicate that it was consigned to the legal firm in its capacity as the representative of the partnership.

the Van Dieman's Land Co. made their own export arrangements. In general, however, colonial wool growers used a local agent in whose hands they placed the produce and to whom they delegated the whole function of making the consignment. In addition the agent provided an advance against the ultimate realisation on the clip. Historically these two functions were closely integrated and placed the functional middlemen, whom we shall call consigning or exporting agents, in a crucial position in the wool export chain.

During the 'thirties and 'forties consignment service were provided mainly by the same group of general colonial merchants who figured as wool buyers. In Sydney merchants like J.B. Montefiore & Co. and Gilchrist & Alexander[1], in the Port Phillip district Dalgety Borrodaile & Co., Bell & Buchanan, J.F. Strachan, Richard Goldsbrough, James Henty & Co. and Stephen Henty[2], and in Van Dieman's Land James Henty and Kemp & Co.[3] provided facilities both for buying and consigning wool. Once again this should occasion little surprise

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(1) A survey of the Sydney press reveals the following sample of firms conducting both consigning agencies and buying departments: C.W. Roemer, Learmonth & Sims, Aspinall & Brown, Thomas Steele, Buchanan & Co., R. Ramsay Senior & Co., W.C. Botts, Lamb & Parbury, Thacker, Mason & Co., Smith, Campbell & Co., Griffiths, Gore & Co., John Rostron, Gilchrist Alexander & Co., and William Pickering.

(2) Cf. Black Papers, S.G. Henty-Black, 9/4/1846, Dalgety Borrodaile & Co. - Black, 22/10/1846, Bell & Buchanan-Black 3/1/1848. See also H.M. Strachan, Some Notes and Recollections, (Melbourne (privately published), 1927), pp.23 and 27.

(3) Henty's activities are outlined in M. Bassett, op. cit., Kemp & Co. have been characterised as the other major Tasmanian consigning agency; see R.M. Hartwell, The Economic Development of Van Dieman's Land (Melbourne, 1954), p.121.

for in addition to commanding most of the working capital, this group had ready-made commercial connections with English concerns which could serve their consigning activities.

Nevertheless, just as merchants did not monopolise wool-buying, neither did they handle all the produce consigned. Some of the growers themselves offered consignment services to their neighbours(1). The firm in which one of Neil Black's British partners was a principal wrote to him in 1841 that they would be "very glad to get consignments of Wool from your neighbours providing that the advance is moderate and the parties known to you to be respectable"(2). Black had visions of going beyond the occasional parcels he did in fact send and was prevented only by the demands of his pastoral obligations from opening a large scale specialised agency in Melbourne(3). The main non-merchant consignment agents, however, were the banks.

Their position is difficult to determine with accuracy, for practices varied from bank to bank, and

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(1) In 1844-5 some growers even banded together in a sort of co-operative consignment group; see Billis and Kenyon, op. cit., p.96. The authors are misled, however, into a grotesquely distorted conception of the sequence of development of marketing forms and characterise this as the first organisation of selling.

(2) Black Papers, T.S. Gladstone-Black, 11/5/1841.

(3) Ibid., A. McLachlan-Gladstone & Sargeantson, 18/12/1845, a copy of which appears on the flyleaf of McLachlan-Black, 19/12/1845.

conclusions are hard to document[1]. Certain considerations imply an aversion to acting as consignment agents for the growers the banks' prejudice against settlers' bills, their initial lack of interest in foreign exchange transactions and their disinclination to engage in business not sanctioned by the canons of current English banking practice[2]. The absence of their names from the lists of Victorian exporters compiled by the Customs House[3] and from the lists of English importers of wool[4] seems to strengthen that impression.

Yet they did act as consignment agents[5]. In 1845 Black expected that "In the future the greater part of our own wool shall probably be sent through the Bank"[6]. In the same year the

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(1) I am indebted to the Australian and New Zealand Bank Ltd. for permission to make use of some of the early archives of the Bank of Australasia, and to Mr. D. Merry of the Bank and Professor S.J. Butlin on advice in their use. In these and other bank records extant (see Butlin, op. cit., Appendix 1, pp.562-3, for an exhaustive list) consignment activities are of too mundane and everyday character to be recorded.

(2) Cf. Butlin, op. cit., chapter 13, passim.

(3) Published by authority in The Journal of Commerce as the "Victorian Custom Bill of Entry" these lists name both the real or apparent (shipping agent) exporters or importers of all goods leaving or entering Melbourne by sea.

(4) London wool warehousemen and wool selling brokers issued annual lists of importers. In 1860 the Bank of N.S.W. and the Union Bank of Scotland warehoused 7 and 114 bales respectively with Browne & Eagle of London. I am indebted to that firm for permission to use the abstracts of their own clients ("List of Wool Importers") and other manuscript records in its possession.

(5) It must be understood that our interest is confined to those exports arranged by the banks for their clients and does not embrace the wool claimed in satisfaction of dishonoured debts and exported as the banks' property.

(6) Black Papers, Black-Gladstone, 25/6/1845.

Superintendent of the Bank of Australasia wrote of "Bills of Lading for Property (which) have been sent to (the Bank Secretary) direct with instructions to hand it over to a reputable party for sale"(1). Butlin(2), moreover, leaves little doubt that this was a normal function exercised by the banks. By 1860 the banks had attained a position of considerable, though unmeasured, importance in the import of wool into England and, by implication, in its export from the colonies(3) and later in that decade their consigning role was taken for granted by the South Australian Northern Runs Commission(4). Their activity was largely an involuntary consequence of their financial relation with the growers. Merchant consignors were able to discount their bills of exchange at the banks on the security of credits established through London, their personal credit in the colonies, or the bills or lading for the consignments themselves. In those

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(1) Bank of Australasia, Superintendent's Circular Orders, No. 63, 12/2/1845. The phrase I have italicised represents precisely the function of a consignee.

(2) Op. cit., pp.507-8.

(3) Strachan, op. cit., p.91 gives a list of importers of Australian wool into England in 1860, noting that although the names of the banks do not appear, they "imported considerable quantities". Other contemporary comments tend to confirm this judgement.

(4) Commission to enquire into the State of Runs suffering from Drought, Report, with Minutes of Evidence, S.A.P.P. 1867, vol. 2, paper 14. See particularly questions 414, 1957, 3994 and 4327.

unusual circumstances when banks were willing or constrained[1] to finance growers' exports directly they chose to protect themselves by taking control of the consignment in both formal and practical terms[2]. It is probable that they employed freight and shipping agents to arrange the actual transport and that it was therefore in the names of the latter that the customs officials recorded the shipments.

In the 'fifties the outstanding characteristic of the consigning agents - the generality of their commercial and financial activities - began to be replaced by some degree of specialisation. In the previous decade the only specialised concerns connected with the wool trade were those which, like Edwin Bennett or Frederick Ebsworth in Sydney and J. & R. Bakewell in Melbourne, provided facilities for classing and packing. Even in 1858 only five wool shippers of the eighty named in the Victorian Custom Bill of Entry - 6% of them-can be reliably identified as conducting business primarily or mainly as consignment agents; but their exports comprised about 13% of those covered by the lists. By the 1870/1 season

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(1) Bank of Australasia, Letters to London, No. 197, 27/8/1844 (W.H. Hart-Court of Directors) paragraph 13, after commenting on the colonies' export surplus draws attention to the fact that "The usual purchasers of this produce (wool) or the Bills drawn against it, viz., the merchants, being unable to operate in them and the engagements of the Producers or those connected with them being in the various Banks and principally in this Bank and the Union, we have naturally been compelled.. in order to obtain payment of these engagements, to purchase a larger amount of London Bills than we require for our exchange operations.

(2) See below, Chapter 5, section 2, for a discussion of the banks' attitudes to financing wool exports before the 'sixties.

however, twelve of the ninety-five named were specialist wool or stock and station agents and they handled 40% of the trade[1]

These specialist houses grew from diverse origins and consequently exhibited different features which profoundly influenced their attitude to basic marketing questions. Each of them, of course, sought technical efficiency in their exporting services and the broad pattern of their consignment methods was the same but because of their different natures they were destined to play very divergent roles in the development of wool marketing institutions during the last third of the century. Three general groups may be distinguished which, while not sufficient to comprehend all entrants to so profitable a trade, nevertheless abstract the major significant variations. There were firstly those which developed, either entirely or as specialised departments, from general colonial importing concerns. Others were formed in the colonies specifically to engage in some aspect of the wool trade and to whom consigning was the main, or one of the main, activities Finally, some companies were incorporated in Great Britain combining wool exporting from the colonies with large scale investment of British capital in the pastoral industry as financiers.

Founded in Adelaide in 1840 to conduct general and commission merchanting, the firm which grew into the house of Elder, Smith & Co. played a leading role in many spheres of

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(1) Analysis based on the lists in The Journal of Commerce for the relevant years.

South Australian commerce[1]. The extensive pastoral interests acquired by A.L. Elder, together with the pastoral affiliations the family contracted by way of marriage, soon led to the provision of consignment facilities. This branch of the business became highly specialised and the main one for which it was known at the end of the century. Similarly the vast Dalgety organisation began as a general importing firm in Melbourne to which was added a wool consignment agency which rapidly became more important than the merchanting[2]. James Turner & Co. of Melbourne, one of the major private companies in the trade by the 'eighties, forsook general importing during the 'fifties and paid specialised attention to wool exporting and in the 'sixties, to the sale and finance of station properties[3]. These firms tended to retain their

(1) (A.G. Price and J.H. Hammond), Elder Smith & Co. - The First Hundred Years, (Adelaide, 1940, published privately) provides a comprehensive picture of its activities.

(2) The dating of F.G. Dalgety's early activities is difficult to establish. Dalgety & Co. Ltd., A Souvenir to Commemorate the Jubilee Year (Melbourne, 1934), indicates that he arrived in Sydney in 1833, took a position with Messrs. Montifiore & Co. for three years, and was then in the service of various other Sydney merchants until 1843 when he went to Melbourne to open Griffiths, Fanning & Co.'s branch there (pp.14-15). In 1846 he entered into partnership with Borrodaile & Gore as importers and exporters. Borrodaile retired in 1847 and Gore in 1851. On the other hand John Cotton (Billis and Kenyon, op. cit., The Cotton Letters) mentions Dalgety acting as agent for Griffiths & Borrodaile in 1844, refers to Dalgety, Borrodaile & Son in 1845 and records the retirement of Borrodaile in 1846 (letters of July 1844, October 1845 and November 1846). In the following years the rapid establishment of associated concerns in Geelong, Tasmania, and New Zealand and the changing personnel of the partnerships led to a bewildering complexity of names which was resolved only by their amalgamation in 1884. (Borrodaile is the spelling used by Cotton; Dalgety & Co. use Borrodale; Joyce prefers Borradale.)

(3) Cf. H.M. Franklyn, A Glance at Australia in 1880: or Food from the South...etc. (Melbourne 1881), pp.219-22.

merchanting interests which, in fact, were more or less integrated with their wool exporting and wool financing activities. While Dalgety and Elder, Smith continued their general importing for a time[1], they were ideally situated to supply the whole range of goods required by pastoralists[2]. Their wool exporting provided foreign exchange; their agency functions placed them in intimate connection with growers who, for convenience, ran current accounts with them[3]; and they were well aware of the specifically pastoral needs of their constituents.

On the other hand, Richard Goldsbrough was trained in Bradford and commenced business in Melbourne in 1848 as a wool classer, packer and broker[4]. Mort & Co., while initially general auctioneers, soon concentrated on pastoral property and graduated from this to wool consigning and selling in Sydney[5]. Other colonial produce brokers who also

(1) Elder, Smith & Co. were very closely connected with South Australian copper mining, while Dalgety contracted to supply imported materials for the Melbourne Mt. Alexander Railway Company, (Select Committee on Railways, Report, Proceedings of the Victorian Legislative Assembly, 1856/7, Vol.2, Paper D 37, Appendix D).

(2) Other consigning houses were similarly situated of course, and did supply goods on occasion. In the same way all of them acted more or less as general agents for their constituents, paying rent for them, receiving and paying bills etc. etc., and they also held agencies for shipping and insurance companies. It was these two, however, in which the merchanting function was most developed.

(3) Neil Black, for example, ran current accounts with Bell & Buchanan, S.G. Henty, Dalgety, Blackwood & Co., and Younghusband of Adelaide as well as with the Union and Australasia Banks.

(4) Joyce, op. cit., pp.111-7 provides an interesting portrait of Goldsbrough in the late 'forties and early 'fifties.

(5) R.J. Withers, op. cit., 10/10/1913 and 25/10/1913.

achieved some success in the consignment trade included J.H. Clough and Hastings Cunningham, who commenced business in Melbourne in 1854 and 1862 respectively[1], and the Sydney firms of F.L. Barker and Maiden, Hill & Clark, both established in the mid'seventies. Although, in some instances, their consignments were very large, they were all primarily interested in the sale of wool in the colonies.

The most notable type of specialised wool house formed in the years after 1860, and the one whose characteristics, appropriated by the others, were to endure to the present day, was that formed specifically to provide extensive long term finance to the pastoral industry and to undertake large scale wool consignment. The crucial feature of concerns like the London & Australian Agency Corporation Ltd., the New Zealand Loan & Mercantile Agency and others established later[2] is that they were formed primarily to provide channels for the investment in Australia of capital raised in

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(1) Clough was absorbed by the London & Australian Agency Corporation in 1866 and Cunningham by the Australasian Mortgage & Agency Company in 1880, each of the two British concerns being established for that purpose. A wool business subsequently opened by Clough was absorbed in the New Zealand Loan and Mercantile Agency in 1880.

(2) The A.M.L. & F. e.g. was incorporated in 1863 with the intention realised in 1865, of taking over the Melbourne firm of Gibbs, Ronald & Co. which in turn had been formed in the mid 'fifties primarily to undertake wool consignments to the parent firm of Richard Gibbs & Co. in London. The connection with Gibbs gave it access to English funds. The N.Z.L. & M.A. was formed in 1864 to invest in, and export pastoral produce from, New Zealand. It commenced business in Victoria in 1874 and in New South Wales two years later. The North British Australasian Co. Ltd., the Queensland Investment & Land Mortgage Co. Ltd., and the South Australian Land Mortgage and Agency Co. provide other examples.

England and, from a strictly logical view, their provision of export facilities, though perhaps necessary, was essentially a subsidiary aspect of their operations. Long term finance was a function which was forced upon many consignment and local selling agencies organised in the colonies between the 'sixties and the 'eighties. It was then, however, a function which derived from their commitments as wool exporters.

At the end of the 'sixties the banks entered the ranks of those who could be termed specialised, or at least large scale, wool consignment agencies. In the 'forties and 'fifties, as we have seen, they did occasionally consign wool for their clients, though with reluctance and without publicity. There is some doubt just how far those services went - whether they involved physical participation or merely nominal responsibility for the consignment and whether the London offices of the banks invariably assumed the full functions of consignees or merely passed the shipments over to London houses which specialised in that function. At all events, all ambiguity was dispelled after the Colonial Bank of Australasia announced in 1868 that it was prepared to undertake the consignment and sale of wool in London[1]. While it aroused bitter opposition from the general mercantile community and generated a momentary controversy[2] it cleared the way for large scale direct bank participation in wool exporting. Within a year the Bank of New South Wales had

(1) Argus, 13/1/1869. See also A. Barnard, "Wool Prices and Pastoral Policies, 1867-1875" Economic Record, November 1955, pp.276-7.

(2) Barnard, loc. cit. It extended even to whether this was an entirely novel practice.

followed its lead and soon became one of the most important consignment agents[1].

Though they were all wool specialists these houses distributed the emphasis of their policy among different aspects of their businesses. To them may be added a further group of consignment agents which could, in this context, be classed as at least semi-specialists. They were the merchant firms which, while reserving their main attention for general mercantile pursuits nevertheless ranked high in the lists of wool exporters. Fanning, Nankivill & Co.[2], which had been operating in Melbourne since the late 'forties and was prominent in the trade with the East was itself, through its principals, the owner of sheep stations in the eastern colonies. It used the export facilities it developed for that wool as the basis of a wide consignment business[3].

The consequences of this increased specialisation and this growth of scale are evident in the way in which the

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(1) Any worthwhile attempt to explain the banks' changed interests must wait on Professor S.J. Butlin's promised study of Australian banking after 1850. In the meantime it might be hazarded that the fall in wool prices at the end of the 'sixties threatening the securities covering the banks' direct and indirect advances to the growers, the proportion of pastoral financing which, even at that time, was being provided by wool houses at the expense of potential bank business, and the conflict of equities which arose when the provision of short and long term capital was in different hands, together weighed heavily in the decision.

(2) H.M. Franklyn, op. cit., p.215.

(3) Other firms like Bright Bros. & Co., J.H. White & Co. and Macfarlan, Blyth & Co. appear in the customs lists as important wool exporters but there is little doubt that a substantial proportion of the wool they handled was credited to them in their capacity as shipping agents, and is irrelevant and misleading in this context.

consignment of wool was conducted through very specific channels. Statistics are not readily available to show how the total exports were divided between the different groups of agents or the extent to which a relatively few houses dominated the trade. Certain deductions may be drawn from the nature of the consignees in England[1]. Between 1880 and 1891 the proportion of Australasian wool consigned to banks rose from 6.9% to 15.9%; that received by the specialised wool and finance companies rose from 27.7% to 39.0%; while the proportion addressed to private firms fell from 65.4% to 45.1%[2]. These are not wholly indicative of the structure of the Australian consignment trade. In the first place New Zealand wool was less markedly exported through the banks and wool houses than Australian and its inclusion in these figures probably inflates unduly the proportion credited to private firms. Moreover, the identification of the English consignee does not necessarily identify the colonial agent. While no wool consigned through the banks or specialised agencies in Australia would have been received by private firms, a certain amount of that sent through merchants may well have been addressed to members of the other groups. Finally, the importance of the specialised houses is understated by the inclusion, among the private firms, of four

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(1) It is too dangerous to argue from the degree of concentration among English consignees (see section 2 below) to a similar structure among consigning agents.

(2) The Australasian Insurance & Banking Record gives lists of importers of over 500 bales of Australasian wool into England, Vol. 14 (1890) p.166 and Vol.16 (1892) p.181

very large specialised but unincorporated consignment agencies[1]. It is clear, however, that whatever the precise allocations, the importance of the wool houses and banks increased considerably after 1880. For the specialised houses it was a continuation of the trend which had begun in the 'fifties and 'sixties; for the banks the process had started at the end of the 'sixties.

That the private firms had been able to retain the largest single group share of the trade was associated wit a change in their composition. The banks and specialised houses gained at the expense of the merchant firms whose importance had been declining since the 'fifties. Even the trade of the semi-specialised merchant consigning agents suffered. Yet the period after 1880 in particular was one in which the sale of wool by auction in the colonies expanded rapidly. English wool buyers, arranging their own shipments either to the manufacturing centres or to London for resale, replaced those merchants consigning on growers' behalf. To them, who are those most concerned with wool imported into England, need to be added those whose shipments were sent direct to the Continent or the United States. Between them these English and foreign buyers accounted for a large

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(1) In 1889 Sanderson, Murray & Co. imported 73,818 bales, Robert Brooks & Co. 29,593, Redfern, Alexander & Co. 27,865 and Elder, Smith & Co. 27,640. (Ibid, Vol. 14, p.166). If these are added to the specialised houses the figures read 12.4% to the banks, 43.7% to the specialised houses and 43.9% to private firms, instead of 12.4, 30.9 and 56.7% respectively as in the original compilation.

proportion of the wool shipped through private firms. Some indication of their importance may be gained from the fact that in 1882 the fifteen largest wool exporters appearing in the Victorian Customs Bill of Entry include five who were primarily wool buyers. There were, in addition, a number of pastoral companies financed directly from England which, for special reasons, still used miscellaneous merchant firms as their consignment agents as late as 1891(1).

c. Local Selling, 1855-1914.

At the apogee of the consignment system of export an aggressive campaign to expand the size and change the natur of the local market was begun in the colonies. Specialised wool selling brokers provided institutions on which an efficient trade could be based; colonial merchant buyers were replaced by foreign dealers and speculators and they in turn were succeeded by the representatives of foreign raw wool consumers; wool consignment and finance houses were forced to abandon most of their consignment functions and transfer their operations to the colonies as wool selling brokers(2).

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(1) The Australian Pastoral Company, for example, shipped through the offices of Gibbs, Bright & Co., ship agents and merchants of Melbourne and the company's managing agent in Australia. I am indebted to the Directors of the Australian Pastoral Company for permission to use manuscript records of the firm located in Melbourne.

(2) This chapter is devoted primarily to an outline of the marketing chain. For a discussion of the reasons for the changes - of Goldsbrough's attempts to expand the local market, of the factors inducing the foreign dealers and consumers to buy in the colonies and of the assumption of local broking functions by the large consignment houses - the reader is referred to chapter 7 below.

The increased orderliness and regularity imparted to local selling by Lyons, Hind, the Bakewells and others by the establishment of auction sales of wool and the provision of warehouse accommodation for it before and after sale, which was considered above, was succeeded by further formalisation during the 'fifties. T.S. Mort in Sydney and Richard Goldsbrough in Melbourne are the two to whom is attributed the provision of regular auction facilities (weekly at first and then more frequently as the demand increased) and of warehouses designed specifically for the sale of wool and consequently incorporating features enabling the wool to be shown to the buyers under the best conditions. This they did in the late 'forties and early 'fifties. It was they who, from the late 'fifties sought to develop the local market rather than merely provide facilities demanded of them. What concerns us here, however, is not why and how they tried to pursuade the growers to sell their wool in the colonies rather than consign it and to persuade final consumers to operate in Australia rather than in England, but the fact that by their existence and that of their imitators they formed a new group in the chain linking grower to consumer.

Both Goldsbrough and Mort, as well as others like J.H. Clough, Hastings Cunningham & Co., Monkton D. Synnot, and P.N. Walker in Melbourne, Maiden, Hill & Clark and F.L. Barker in Sydney, the Guthries and C.J. Dennys in Geelong and Elder, Smith & Co. in Adelaide provided dual facilities -

either for sale in the colonies or consignment to England. Local selling formed their main activity - they styled themselves wool selling brokers not consignment agents - and from the late fifties they specialised in this branch of business. Now, to the extent that this function represented no more than the provision of broking activities linking growers with colonial merchant buyers, colonial wool dealers and speculators, their advent meant only the formalisation of the selling arrangements which had existed between these groups in the 'forties. This in itself, it is true, was a most important development, for by acting as selling agent for the growers and points at which supplies were concentrated for the buyers, and by furnishing a means whereby sales could be effected efficiently and with probity, they immeasurably eased the contact between the two. Their main significance in this context lies, however, in the fact that by providing these improved institutions they made it increasingly possible for non-colonial buyers to operate in the market with skill, economy and profit.

Given the establishment of these selling institutions, it is in the nature of the buyers at the colonial auctions that is to be found the most important development in the local sale of wool after the mid-'fifties. Already, in the 'forties and early 'fifties we have noted the activities of buyers who, like Kummerer and Sanderson, bought for foreign principals at whose risk the wool was transported from the colonies. During the 'sixties purchasing on non-colonial account was increasing steadily and primarily

confined to English orders. The main buyers had, by that time, become full-time specialised wool buying brokers accepting and executing speculative orders for English wool dealers like Robert Jowitt & Sons of Leeds[1] or speculating on their own account. Hinchcliffe, Hirst, Hick, Halliburton, Ebsworth, Johnston and Austin were between them able to conduct most of this business[2].

During the 'seventies foreign buying increased greatly. Henry Austin, one of the leading buyers, in 1872 executed orders for merchants in Germany and Belgium and for Germans in England as well as for Englishmen. Colonial buying brokers, however, were not well situated to operate on Continental account. That demand came to be exercised through the branches of European dealer firms established in the colonies at this time. In the late 'sixties a tri-partite alliance of Belgian, German and Dutch interests, Ostermeyer, Dewez & Co., and another Belgian concern, Renard Bros. & Co., opened offices in the colonies[3]. A few years later Masurel Fils et Cie, destined to become one of the most important forces in the colonial market, sent C. Maquet to Sydney as its

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(1) Jowitts purchased irregular parcels through Thomas Holt in Sydney and Dodgshun & Austin in Melbourne from the mid-'fifties. Cf. A. Barnard, "Wool-buying in the nineteenth century: a case history", Yorkshire Bulletin of Social and Economic Research, Vol.VIII, No. 1. The information is derived from the invaluable Jowitt Records.

(2) Austin, op. cit., May, 1907 and June, 1907.

(3) I am indebted to Mr. G. Dewez, of T. Dewez & Co. of Sydney, for many recollections of the early firm and its partners. See Renard Bros. & Co., Antwerp versus London as a Market for Australian Wool (Melbourne, 1875) for an indication of that firm's interests.

first representative[1]. American purchases were made through Newell & Co. and other colonial firms[2].

Throughout the 'seventies and into the 'eighties most of the purchases on foreign account were made for dealers and top-makers. In the 'eighties these two groups began to follow the lead set by Masurel and other dealers, to establish their own buying branches in the colonies and to end their dependence on colonial, and the few foreign, commission buyers[3]. It was the establishment of these branches on a large scale that elevated the colonial auctions to something approaching world status, for it shifted the focus of dealer purchases from the northern to the southern hemisphere. They were followed, in the 'eighties and 'nineties, by branch establishments of manufacturing firms which bought both for their parent concerns and, on commission, for other raw wool consumers. By the end of the century, while many colonial buying firms were still operating, most of the wool sold in Australia was purchased by the branches of foreign firms and, while wool was still bought speculatively, even for resale on the London market, the greater proportion of it was bought directly by, or by commission agents for, final consumers and intermediate dealers.

These changes in the composition of the buyers at the auctions, and their effect on the prices realised there are basic factors in the growing utilisation of this channel

(1) Austin, op. cit., September, 1907.
(2) Newell & Co. were merchants indenting largely from the United States; their wool trade was actively sought, initially, as a sideline to the merchanting.
(3) The process is discussed more fully in Barnard, Y.B.E.S.R., Vol. VIII, No. 1.

of disposal by the growers. In the 'fifties and 'sixties it had been, generally, the small grower who sold his wool locally. The specific attraction of local sale - quick realisation and finalisation of accounts - appealed mainly to that class and outweighed for them the lower prices obtained. The enhanced prices offered by dealers and manufacturers attracted new sellers to the market. They were deprived, however, of their full potentialities by rigidities in marketing which attached growers to functional middlemen bound to sell in London(1). In fact, the local market was able to mature only when the wool and finance houses, like Dalgetys, were forced both by the prompting of their constituents and the realities of the situation to offer sales facilities in the colonies in the 'eighties(2).

The assumption by these firms of local wool selling functions completed the circle of change through which marketing patterns in the colonies had gone before the first World War. Local sales to general merchants and colonial speculators by primitive and unordered methods in the 'thirties had been largely replaced by consignment to England through the agency of the same merchants. Those consignment functions of the merchants had been taken over by specialised agencies; their place at the colonial auctions taken by specialised foreign

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(1) See below, chapter 5 and chapter 6, section 2 b.

(2) The N.Z.L.M. & A. commenced selling in Melbourne in 1880, Dalgetys in 1887 and the Union Mortgage & Agency Co. in 1888. Of this move (which "was necessary to conserve the interests of the company") the Chairman of Dalgetys said "It may diminish our consignments to London, but not to the extent that it will increase our business in the colonies." (At the 3rd annual general meeting reported in the A.I.B.R., Vol.II, p.777.)

wool dealers. Local sales had been made effective by the growth of a class of local wool selling brokers whose ranks had been swollen by the provision of dual facilities by the specialised consignment houses. Local selling, patronised in the 'thirties by all classes of wool producers, in the 'sixties only by those with restricted means, by 1914 attracted two-thirds of the wool produced.

2. Marketing beyond the Colonies.

In 1840 all Australian wool no matter how it was exported - whether by merchant or other purchasers, by merchant or other consigning agents, or by the growers - was consigned to agents in England who arranged for its sale at the periodic auction sales in London or Liverpool. There it was sold by wool selling brokers to raw wool consumers in Britain and to dealers who, selling by private treaty, distributed it to other manufacturers in Britain and, to a slight extent, in Europe. The main change which this marketing pattern underwent during the nineteenth century lay in the extent to which the consignment technique of export and the London auction sales were partially replaced, from the mid-'seventies, by distribution direct from the Australian auction sales. From that time, that is, we must consider not one but two perhaps parallel but competing patterns. This change, in its most simplified form, meant primarily that the source of some manufacturers' and distributors' supplies was changed, leaving largely unaltered the routes by which the dealers' wool was

subsequently distributed. Within the sector of marketing which was centred on the London auctions the changes which occurred related primarily to the structure and nature of the agency firms acting as consignees and the composition and structure of the distributive trade. Despite the changes in the overall pattern - despite the competitive growth of the colonial auctions - the broad principles on which the London section of marketing institutions was based remained unaltered.

The importing merchants[1] - the English consignees - provided the link between the colonial exporters and the rest of the market system. Their function was to act as agent for the owner of the wool (colonial purchaser or grower) in all matters relating to its sale - to receive it in England, to supervise its landing and storage and to arrange with a wool selling broker to offer it at the auctions. This agency was secured for the grower by the colonial consigning agents; the importing merchant, in other words, stood at the second stage of remove from the grower.

In the early years of the trade the unspecialised nature of the colonial consignors was matched by the number and variety of consignees. Colonial merchants consigned their own and their clients' wool to those with whom they were in closest correspondence - the English merchants from whom they imported their goods and the agents who conducted their English

(1) Strictly speaking the term "importing merchants" is a gross misnomer for at no time did these firms trade in the wools consigned to them and the only title they had to them was the formal one vested in them in their role as financiers. The term is retained, however, because it is the one used at the time.

business[1]. Emigrant growers consigned to their friends, relatives and partners[2]. Large pastoral and land companies, like the Australian Agricultural Company and the South Australi Company, banks and other concerns incorporated in England consigned their wool direct to their head offices. The existence of so varied a group of importing agents was not simply a product of the limited range of correspondents to which the difficulties and paucity of communications condemned the colonist. English wool dealers manifested an extreme reluctance, in those years, to play any role in the import of Australian wool preferring to enter the market only as buyers at the London auctions. Lacking their specialised knowledge and resources, and in particular the concentrated application of working capital which specialisation alone conferred, the importing agents formed a fragmented group. Part of their function was to accept bills drawn on them, against the wool, by the consigning agents and discounted in the colonies[3]. The contingent liability which these acceptances represented, for they might fall due before the sale of the produce and before, therefore, the importer was in a position to meet them, together with the difficulty of determining the creditworthiness of colonial agents, imposed a natural limit on both the quantity of wool for which an English agent could accept

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(1) The example of James Henty's connection with the firm of Henry Buckles & Co., general merchants of London (Bassett, op. cit., pp.205, 315, 488, 513, 514, 516) will suffice to indicate a type of relationship which was very widespread.

(2) E.g. Black's consignments to the firm of Gladstone & Sargeantson mentioned above.

(3) See below, chapter 4, section 6.

responsibility and the number of colonists from whom he might receive it.

The growth of colonial production, however, enforced some degree of specialisation on importing functions and led to concentration among the importers perhaps earlier than among the corresponding class of colonial agents. By 1859 the process was quite clearly definable. In that year Browne & Eagle stored a total of 49,190 bales in their London warehouses, acting on behalf of 97 importing agents. Of these, 82 imported an average of 199 bales each; the remaining 15 provided the company with two-thirds of its business(1).

The routes by which firms attained this specialisation were various. Some merchant houses to whom wool importing had been a subsidiary complication of normal exporting relations with colonial firms allowed it to expand to consume the major part of their activities; of these P.W. Flower & Co. may serve as an example. Even by the 'sixties some wool dealers had entered the field and provided consignee services while also purchasing at the auctions in London and perhaps, through commission agents, in the colonies. F. Huth & Co., a wool buying broker and dealer who played a large part in stimulating Continental demand for Australian wool, operated on the largest scale but others like Jowitts of Leeds received variable parcels(2).

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(1) Browne & Eagle Records, "Lists of Importers".

(2) Jowitt's receipts of consignments varied quite widely. The Jowitt Records, Colonial Ledgers, suggest that minimal figures for the following years are as follows: 1855, 150 bales, 1860 186 bales, 1865 732 bales, 1870 909 bales and 1875 5386 bales. See also Barnard, Y.B.E.S.R., Vol.VIII, No. 1.

Developments of this nature occurring in English firms were important, but the two main forces lay in the formation of pastoral finance houses and the integration of English importing and colonial exporting concerns. The pastoral finance houses, designed to invest British capital in the wool industry assumed wool marketing functions as a concomitant of that investment. The most prominent among them were organised on a large scale and soon became important, as we have seen, as colonial consigning agents. Possessing offices in England, to which their exports were naturally addressed, they acquired rank among the consignees with equal rapidity. Though it is not pretended that these reflect accurately the growth of its business, some appreciation of the expansion of the New Zealand Loan and Mercantile Agency as an importer may be gained from the fact that the quantity of wool which it warehoused with Brown & Eagle rose from 73 bales in 1866 to 2339 in 1868, 4002 in 1869 and 5859 in 1870[1]. The banks were similarly fortunate in possessing London offices. The integration of colonial exporting and English importing firms was both a cause and a consequence of specialisation. In some cases the initiative came from the colonies and a dependent outlet for a firm's consignments created in England. F.G. Dalgety went from Melbourne to London to form his own receiving establishment[2], while Elder Smith &

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(1) Browne & Eagle Records, "Lists of Importers".

(2) Dalgety & Co. Ltd., op. cit., p.19. He took with him F.A. DuCroz as partner in the London concern and left James Blackwood as the managing partner in Melbourne.

Co. utilised the importing services of A.L. Elder, the founder of the firm, when he retired to England(1). On the other hand Richard Gibbs & Co. attained stature as importing agents because of the success of its offspring firm Gibbs Ronald & Co. of Melbourne. Many other importing firms, including P.W. Flower & Co., were represented on the boards or in the partnerships of exporting agencies.

By 1880 three specialised firms - two pastoral finance companies and an importing agency - together provided Brown & Eagle with just over half the business they received from 146 importers(2). This does not wholly represent the firm's good fortune in numbering them among their clients, for a complete survey of the importers of Australasian wool in 1889 reveals that the specialised houses and banks together handled 56.1% of the total trade(3). By 1898 the five largest specialised consignment houses between them accounted for more than one-third of the Australasian wool arriving in England for sale by auction(4).

Yet despite their impressive share of that market by the end of the century their function as consignees was of subsidiary importance. As soon as they were forced to provide selling accommodation in the colonies their English role was destined to decline. Their place in the trade in 1898

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(1) (Price and Hammond), op. cit., p.17.

(2) Browne & Eagle Records, loc. cit.

(3) A.I.B.R., Vol.14, (1890), p.166. See p.114, n.1 above.

(4) Gooch & Cousens Ltd., Wool Importers, (an annual publication, London, 1899). These firms imported 332,510 bales in a total of 935,940.

represented a mere survival, though an admittedly lusty one, of their former dynamic importance. Their mantle was assumed by the banks, fourteen of which imported over 25% of the total, which represented a major outlet for growers still wishing to sell their clips in London, by the large producing companies and by the few merchant consigning agents who, with headquarters in London, were conservative survivals from an earlier era. These groups were all concerned with receiving consignments from the growers or their agents. For a time, however, it seemed that the continued vitality of the London auctions might depend on the wool dealers who imported considerable quantities of wool bought speculatively for them by their colonial branches and placed it directly in the salerooms. The uncertainties of the market, the ease with which manufacturers could supply themselves from Australia and the importance of the trade in tops soon forced them out and in the twentieth century the diminished London market was served primarily by the banks and the large wool producing companies.

The importers' prime formal function, as we have said, was to arrange for the sale of the wool at the auctions. The group in whose hands the responsibility for the actual sale was placed were the wool selling brokers. Some of these were already, in the eighteen-'forties, of impressive age. As the import of colonial wool expanded during the 'forties and 'fifties new entrants appeared from other textile occupations. W.H. Willans, for example, had been in the Huddersfield wool trade before coming to London as a broker

in 1855[1]. A wool selling broker's was in many ways a personal business in which personality, success on the auctioneer's rostrum and an intimate knowledge of the clients' requirements played a major part. Despite the longevity of some individual concerns, the mortality rate among them was consequently high. This inherent instability was aggravated, after the 'eighties, by the fact that the amount of business to be shared between them first ceased to expand and then declined as the auction sales in the colonies became the main avenue for the disposal of the colonial clip.

This competition from the colonial auctions increased the tendency for wool selling in London to be concentrated into relatively few hands. This concentration had been a noticeable feature in the early 'seventies. At the first three series of sales in 1874 five brokers offered 81% of the total catalogued while the remaining 19% was divided among nine other brokers[2]. By 1889 the five largest accounted for only 76% of the offerings but the number of other brokers had dropped to only six[3]. The competition, in other words, had forced some of the weaker firms out of the trade altogether. Towards the end of the century the process was accelerated by the amalgamation of broking firms. The firms of W.P. Hughes & Co. and Willans, Overbury & Co. which were joined in 1914 illustrate the part played by a declining total business. In 1888 Hughes sold 109,203 bales and Willans & Overbury 78,692;

(1) Cf. The Wool Record and Textile World (Bradford, monthly), 28/2/1929, p.579.
(2) Brodribb, Results of Inquiries..., p.46.
(3) A.I.B.R., Vol.14, p.166.

in 1913 Hughes & Co.'s business had dropped to 62,353 and Willans & Overbury's to 53,217 bales(1).

The other group of functional middlemen through whose hands the wool could pass before reaching the consumers or dealers were the wool buying brokers. Their role was to represent the actual purchasers in the sale room, bidding on their behalf and frequently taking delivery of the wool and forwarding it to the dealer's warehouse or manufacturer's mill. Their intervention was necessary for two reasons. In the first place they made it possible for foreign manufacturers and dealers to purchase in London without making the journey from their own countries (in the same way as the colonial buying brokers made it possible for English buyers to operate there without being there in person). And secondly, they were possessed of skills and influence in the auction room which the buyers themselves lacked. It was felt, for example, that buying brokers in London were so well seated in the room and in close calls so often caught the auctioneer's eye that a buyer had far more chance of obtaining the lots he wanted if he made his bids through one of their number(2).

They attained this enviable position simply because they bought far more, on commission, than most consumers and dealers bought. The large buying brokers operated, in fact,

(1) I am indebted to Hughes, Willans, Irwell & Co., London wool selling brokers, for permission to extract this information from their archives.

(2) The Joint Sub-committees of Enquiry appointed by meetings in N.S.W., Victoria and South Australia, Report on the Sales of Australian Wools in London...(London, 1870), p. 21. (Henceforth cited as The Sales of Australian Wools in London...) Also Brodribb, Results of Inquiries..., p.25.

on a very large scale indeed. Two or three of the large selling brokers who also acted as buying brokers bought as much as they sold. Fully two-thirds of the purchases made in the early 'seventies were actually made through buying brokers[1]. As there were no restrictions on entrance to the trade there were many brokers, drawn from all sections of the wool trade. Many were manufacturers and dealers who agreed to buy on commission for others while they were obtaining their own supplies in London[2]. Others, like Paul Pierrard and Frederick Huth, were specialist buying brokers, acting mainly on account of foreign consumers and dealers. Others again acted both as selling and buying brokers - like Helmuth Schwartze - combining an intimate knowledge of buying clients with an extensive knowledge of the wool coming forward[3].

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(1) The Sales of Australian Wools in London..., p.23.

(2) Robert Jowitt & Sons provide an example (Cf. the arrangements recorded in the Jowitt Records, "Jobbing (erased) Order Book" pp.11, 13, 82, 135 etc.).

(3) The Sales of Australian Wools in London..., p.36.

Chapter 4

The Functions of the Market.

In bringing together the producer and the consumer the middlemen and agents whose places in the marketing pattern were defined in the previous chapter, performed certain services which form the fundamental features of marketing - the concentration, exchange and distribution of goods. Marketing means much more than this, however, for it includes all of those services which make the exchange possible and which are utilised by buyers and sellers to effect it to their respective advantage. Grading and packing, transport and communication, and the provision of finance are as much functions of the market as riskbearing.

From the wide variety offered by this definition it is intended here to examine a selection of the more important functions, to determine changes in the performance of the services through which they were expressed and to relate those services, more closely than in the previous chapter, to specific agents in the market.

1. Market Information.

The distribution of information relevant to the actions of both buyers and sellers was of prime importance when those groups were separated by 12,000 miles over which communication was slow and not wholly reliable. Throughout the whole of our period after 1840 this service was provided mainly by the agents most closely connected with both groups - the wool selling brokers.

At the close of each auction sales series the London

brokers published the range of prices established at the series, the quantity offered and that withdrawn at the reserve price, and indicated the general sources of the demand. In between the sales series their market reports examined the short term prospects of the market, remarking the current and probable stat of manufacturing activity, the apparent offerings at the next series, conditions in the money market and other developments likely to affect the formation of prices in the near future. These reports were designed as much for the sellers and their English representatives as they were for the buyers (1). Those representatives, and the buyers', were themselves in a position to make their own observations which they frequently forwarded, in addition to the brokers' reports, to their constituents (2).

Supplementing this information both brokers and importing agents endeavoured to interpret trend developments. Their comments ranged from reports of the number of sheep, the state of the weather and of grazing conditions, expected and actual lambing results and the anticipated quantity and quality of a forthcoming clip to discussions of the developments in manufacturing techniques, changes in fashion and their impact on the demand for various types of wool. They provided consumers, speculators and even the growers with a basis on which some preliminary notions about future prices might be founded. At the same time, read in conjunction with the reports of previous

(1) The reports were distributed as circulars, sent to clients and reprinted in colonial newspapers and journals as commercial news.

(2) Black Papers, Gladstone and Sargeantson - Black, 4/9/1855. On an account sale Black is advised of his consignees' estimate of the next sales.

sales they offered the growers some indication of the probable permanence of existing price differentials between wool types and guided them, therefore, in their breeding policies.

At times the manufacturers themselves sought to influence the types of wool produced both in general terms, such as the support given by the Bradford Chamber of Commerce to the drive, initiated by the manufacturers, to increase the colonial production of long wool in the 'sixties and 'seventies[1], and in the more specific instances of advice given growers by English and Continental manufacturers to whom samples were sent.[2] This was of episodic importance only and the brokers and importing agents exercised a more direct and continuous influence on the growers. In addition to their advice on the general lines of breeding which were most desirable[3], they made detailed comments on the breeding, the condition and the presentation of the clips committed to their care[4]. In this respect the colonial wool brokers, who rendered the same service were more fortunately situated than their London counterparts. The possible imperfections of their knowledge of the manufacturing industries was compensated by a closer relation with sheep raising.

Necessarily, the utility and reliability of the market information made available through these sources varied.

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(1) Cf. Chapter 2, p.45, n.1 & 2 and 1.13.
(2) Billis and Kenyon, op.cit., p.190
(3) T.Southey, op.cit., pp.21-22
(4) Neil Black's 1840 clip was characterised as "generally a good middle quality - soft and contained a fair proportion of wool suitable for combing;but not well washed". Black Papers, undated and unsigned report by the broker copied on a duplicate invoice for rams.

The range of the reports and the details they embodied expanded as the trade grew and as it encompassed wider geographical area Brokers and consignees were sometimes slow to appreciate the extent of some of the changes they chronicled and tended to view them, perhaps naturally, out of perspective; their forecasts were often incorrect; their efforts were castigated as "gratuitous prophecies" and the "promulgation of crude and hasty theories about production and consumption"(1). Nevertheless, they bridged, as best they could in an age lacking speedy communication and a penchant for statistics, what would otherwise have been a crippling gap in the market.

2. Grading.

The quality of wool may vary widely from sheep to sheep and from one part of a sheep to another. Basically, grading wool means confining the wool packed in one bale to a certain standard. This simple fact was enormously complicated during the nineteenth century by changes in the provision of grading services and by the refinement of the concept of wool qualities and types.

In the 'thirties and 'forties, colonial wool came down to the ports in loosely packed bales. If it was to be shipped to England for sale on the growers' account, it was sorted there and repacked firmly enough to withstand the sea voyage and the port and warehouse handling. If it was to be sold in the colonies it was frequently offered in open bins and then repacked, perhaps with other wool, at the direction of the buyer. These services were performed either by specialised

(1) These phrases were endorsed by no less a body than the Melbourne Chamber of Commerce. See the Argus, 29/3/1872.

sorters and packers[1] or by the employees of wool buying merchants, consignment agents or shippers. On occasion they were organised on most efficient lines[2], but in general the standard of sorting was low[3].

Three developments during the succeeding decades moved the site at which the wool was graded back from the port to the shearing shed. The growth of colonial production, the vastly increased utilisation of the consignment method of disposal, and the greater distances over which wool was carried to the ports (necessitating sturdier packs and tighter baling on the station) made unpacking, sorting and repacking in the ports increasingly uneconomic. From the late 'forties and 'fifties professional wool classers offered themselves for seasonal employment on the stations[4] and wool classing became an important qualification for managers and overseers. As classing became more complex during the second half of the century their function lay as much in superintending the separation of different wools from the same fleece - skirting the necks and pieces and removing the bellies and locks on the shearing board - as in ensuring a roughly even quality of wool in any bale.

In London and, after the 'fifties, in the colonial

(1) It is worth emphasising that Richard Goldsbrough started business in 1848 as a "wool sorter, packer and broker".
(2) Cf. the description of the Bakewell's establishment in Melbourne at the end of the 'forties in W.Westgarth, The Colony of Victoria: its history, commerce and goldmining... (London, 1864), pp.269-270.
(3) T. Shaw, op. cit., p.6 describes colonial wool sorters as "old fellmongers, weavers, hatters and porters to cloth warehouses who are simply imposters".A few years later S.Smith,op. cit.,p.11, felt that colonial fleeces were hardly sorted at all
(4) Examples may be found in the Collaroy Papers, Vol.1, B.A. Kemp-R.J.Traill, 15/8/1853. (I am indebted to the Librarian of the Mitchell Library for permission to quote from this collection) and in the Black Papers, T.G.Shaun-Black, 6/10/1866.Shaun had been a manufacturer in Leeds and a woolbuyer in London.

centres, selling brokers performed a further grading operation by assembling the packed wool from each clip into lots containing bales of even quality. Until the end of the century, it was not necessary for them to re-sort wool in individual bales. The poor classing characteristic of wool from small mixed farms in South Australia and Victoria, particularly in the 'eighties and 'nineties[1] induced colonial brokers first to interlot bales of the same quality offered on account of different producers and later to offer binned and bulked wool[2].

Sorting and blending wool from different clips, a central function of wool staplers dealing with English wools in the first half of the century, was not widely practised by dealers who bought colonial wool for resale direct to manufacturers[3]. Blending or sorting done by top-makers or at the mill by woollen spinners, by worsted spinners preparing to have it combed on commission, carries grading a step beyond the limit of our interest, for it was concerned either with manufacturing or the marketing of wool processed into tops and noils.

Thus five groups, the specialised or semi-specialised sorters and packers, growers, itinerant wool classers, wool selling brokers and perhaps dealers, have

(1) R.B.S.(kamp), Farmers' Wool (Melbourne,1894) is a plea directed to small wool producers to class more carefully. It was published under the auspices of Goldsbrough,Mort & Co.Ltd.
(2) L.W. Bagley, Efficient Wool Marketing (Dunedin,N.Z.,1933) p.49, provides an indication of the complex patterns of classing services now available to the grower.
(3) Jowitt Records, "Purchase Book, 1870-1", containing a bale by bale list of purchasers at the auction sales together with their weights prices and marks, and the details of their resale shows that Jowitt, at least, habitually re-sold imported wools in their original state and packing.

at various stages of the marketing process contributed to the grading of the wool. To some extent the change in the performan of this function was associated with the problems of transport and with the organisation of the export mechanism. It was also a product, however, of the changing nature of wool classing itself.

The crudest and earliest differentiating description applied was a simple geographic one - "Botany" and later "Van Dieman's Land" and "Port Phillip" wool; the most sophisticated, the 1536 types and sub-types on which appraisal for government purchase was based during the second World War. In between thes lay a gradual evolution of finer and finer distinctions. In the 'twenties the Macarthurs, the colony's leading wool growers simply ranked the fleeces from fine to coarse and packed them accordingly (1). In 1856 Neil Black's wool was classed into 1st, 2nd, and 3rd combing and 1st, 2nd and 3rd clothing with rams' wool and some pieces in separate bales (2). The Australian Agricultural Company was advised, nine years later, to confine the distinctions to 1st and 2nd combing, 1st, 2nd and 3rd clothing, and 1st and 2nd hoggetts (3). By the end of the century a few new descriptions had been added generally, like the infrequently used "carbonising", in response to new manufacturing needs. Yet if the terms used did not change

(1)S.Macarthur Onslow, op.cit.,ch.XII, passim. Sales catalogues of that period (one is reproduced opposite p.440) do not attempt to describe thw wool other than by source.
(2)Black Papers, Gladstone and Sargeantson-Black,5/7/1856 enclosing Thomas Southey & Son's valuation of a shipment classed in this way.
(3)Australian Agricultural Company,Despatches from London, No. 201, 27/2/1865.

greatly during these sixty years the gradually widening adoption of their use was a most noticeable feature, particularly in the colonies where the wool selling brokers did not, perhaps, play a large part in grading as in London. For many years the insufficiently informative terms "fine" and "coarse" and later 1st, 2nd and 3rd ewes and wethers sufficed for many growers, but more specific terms incorporating reference to combing or clothing wool gained an increasing acceptance.

The basis of classing, then, was a primary classificati of the wool according to the manufacturing use for which it was most suited. Black's separation of combing from clothing wools corresponded to wools destined for use in the worsted and woolle branches respectively. Within these two groups further subdivisions embraced different grades expressed as fine or coarse, ranked numerically or later alphabetically. It is apparent that grading of this nature did not represent classification on the basis of objectively established standards The finer distinctions, drawn in the shearing shed, embodied no more than the ranking of the qualities in any one clip. Wool of allegedly the same quality taken from different clips realised widely different prices at the same auction[1]. The broad division into combing and clothing wools postulated a difference in wool types rather than wool qualities. One could say, in fact, that wool classing was no more than wool typing complicated by a subjective ranking from good to bad. That the descriptions applied were inadequate and of significance only to the individual stations is indicated in the fact that Englis

(1)At the sale held in Melbourne on 21/11/1883 by R.Goldsbrough & Co. greasy merino wool described as 1st combing realised prices ranging from 9d. to 12⅞d. per lb.

buyers placing orders through colonial buying brokers ignored them and used general terms and references to previous purchase and samples[1].

The subjectivity of wool classing underlines the difference between the grading of wool and of most other primar products like cotton and wheat. In those trades the grades are standardised, easily recognisable by initiates and embrace qual ities which are stable, which can be tested objectively and on the basis of which transactions may safely be concluded without inspecting the actual produce. In the marketing of other raw materials grading secures, by a series of discontinuous unities a measure of homogeneity among an otherwise essentially hetero- geneous collection of goods. The very complexity of wool types deriving from the wide variety of influences - genetic, edaphic climatic and human - to which wool production is subject, at once demanded the orderliness of grading and prevented the achievement of its purpose.

Yet wool classing was a valuable operation. Developed initially by the sellers and their agents as a form of product differentiation designed to secure higher unit returns, the prime area for its exploitation lay in the assembly of the lots to b

(1) J. Raistrick's orders to W.H.Chard of Sydney provide an example of this lack of precision (Raistrick Records,"Letters t Colonial Purchasers",1/9/1875): "The kind of wool I want is of a medium to better quality, but the bulk of our wool is faulty, that is burry moiety or seedy, if it can be bought cheaper than clean wool, we do not mean over burry. This kind of wool accord ing to your letter ought to be bought very cheap...Regarding the class of wool which will suit us are moiety fleeces,scoured or greasy, pieces bellies locks scoured or greasy... etc. ...We give you the following marks which we have had and liked very well....". (I am indebted to the librarian of the Brotherton Library, University of Leeds, where this collection is held, for permission to use and quote from it.

offered at the auction sales. A lot which contained wool of an even quality commanded a higher price because a buyer whose needs it suited could depend on using it all. Even by the 'forties wool textile manufacturing had reached a stage such that the inclusion of other qualities, whether superior or inferior, represented for the manufacturer the inclusion of waste to be sorted out and disposed of in uneconomic quantities at a probable loss. Descriptive labelling may have saved buyers some time by enabling them to by-pass definitely unsuitable wool in their warehouse examination of the bales before the sales, bu the success of the grading depended entirely on the extent to which each bale contained wool of one quality only and each lot contained bales of even quality[1]. In its effect, that is, grading provided only a guarantee of uniformity within a lot and not one of an objectively standardised quality.

Classing also carried its dangers. Some new categories were justifiably added by the growers in response to legitimate manufacturing needs. The increasing complexity and the needless use of fine distinctions during the last thirty years of the century, however, caused some concern particularly among the London wool selling brokers[2]. It was necessary to balance the value of accurate classing against the fragmentation of lots to which an excess led. It was an established fact that a lot

(1)Misdescription and false packing of bales were in fact among the earliest things for which the buyers demanded means of redress.

(2)Colonial Wool Merchants Association, Report of the Subcommittee appointed to consider the communications received from the Chambers of Commerce, Wool Growers and others in the Australian colonies, relative to the management of the London Wool Sales. (London,1872), p.2.

consisting of fifty to a hundred bales of fairly even quality excited even greater competition among the buyers than an equal number of bales meticulously classed into lots of five bales or less[1].

3. Transport.

Transport was provided for the wool market by specialised agencies existing outside the market. Growers admittedly used their own bullock drays in the days before public carriers offered adequate facilities, and some of the colonial consigning agents owned shipping lines or were agents for English fleets. While in the latter case this no doubt gave them a competitive advantage in their consignment business interests in transporting were, strictly, a separable and analytically separate department of their activities. What is of consequence in the present context is, therefore, the effect which developments in the provision of public transport had on wool marketing.

In the colonies the growth of railway networks, the clearance of rivers and the provision of river-boat transport, together with the pattern of tariffs charged not only speeded and cheapened the inland carriage of wool but directly influenced the direction in which the produce flowed. The service along the Darling-Murray system started in the 'fifties, for example, was one of the factors which opened the extremes of the Western Division of New South Wales to pastoral occupation. River boats carried the wool from the ports as far up as Bourke down to Port Victor and Goolwa in South Australia where

(1) Ibid., pp.13, 16, 18, 21.

it was trans-shipped to England or, later to Melbourne[1]. In 1864 the Victorian Government offered a freight rebate for wool carried on the Echuca-Melbourne railway which had been brought upstream to Echuca - for wool coming down the Darling which had been diverted up the Murray away from South Australian ports. It was undoubtedly felt, both in Melbourne and Adelaide, that some of the wool which followed this route tended to be drawn into the Melbourne auction sales, to which the discriminatory rates gave it access, instead of being consigned to England[2]. In the 'sixties produce from the Riverina district of New South Wales, in which the ties with Melbourne were very strong[3], tended to be sent to that city by river, road and rail for local sale or consignment to England. The extension of the New South Wales railway system to the Murrumbidgee district diverted part of it to Sydney, fanning the intercolonial rivalry between the local selling brokers. Railway rates, which, at the end of the century, favoured wool coming from the northwest plains and tablelands to Newcastle rather than to Sydney for direct shipment to England, illustrate a final, rather different use to which discriminatory policies were put[4].

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(1) See A.H. Morris, "Echuca and the Murray River Trade", Historical Studies of Australia and New Zealand, Vol.4, No.16, p.340. A rather more romantic account may be found in Ernestine Hill, Water into Gold (Melbourne, 1937), chapter 2.

(2) Royal Commission on Railway Construction, Report and Minutes of Evidence, South Australian Parliamentary Papers, 1875, Vol.2, Paper 22, passim.

(3) Select Committee on the Riverina Districts, Report and Minutes of Evidence, Proceedings of the Victorian Legislative Assembly, 1862/3, Vol.2, Paper D 42. See particularly the evidence of G.S. Lang, A. McCleary, and R. Youl.

(4) Standing Committee on Public Works, Report on the Proposed Railway from Narrabri to Walgett with Minutes of Evidence, New South Wales Votes and Proceedings, 1900, Vol.5, Question 1865.

There was a limit, however, to the extent to which these factors could influence the marketing pattern. Riverina wool, for example, tended to return to Melbourne during the lat 'eighties and 'nineties despite the ease and cheapness of transport to Sydney[1]; Darling wool continued to go to South Australia despite the rating policy of the Victorian railways i the 'sixties, much of it in fact being trans-shipped to Melbourne rather than to England[2]. The fact is that the direction in which these wools moved was as much affected by th decisions taken about marketing them as by the conditions of transport. As one shipping agent put it, "...it is dependent or this, whether it is intended to sell the wool in the colonies or not. If it is intended to sell it, then the /Darling/ wool goes to Melbourne; if it is intended for shipment to some other market, then it comes to South Australia"[3]. This seems, after the long history of intercolonial mercantilist rivalry, to have been a just and sobering judgement.

One undeniable, though general, effect of the extension of railways in the colonies was the greater concentration of woo into the three main ports of Sydney, Melbourne and Adelaide. The potential attractions of those cities as major points of collection and, incidentally, as major centres at which auctions could develop were thus increased. Moreover, the provision

(1) Ibid., Question 2228.
(2) Select Committee on the River Murray Traffic, Report and Minutes of Evidence, South Australian Parliamentary Papers, 1870/1, Vol.3, Paper 86, Question 27.
(3) RoyalCommission on the Land Laws of South Australia, Report and Minutes of Evidence, South Australian Parliamentary Papers, 1888, Vol.22, Paper 28, Question 365.

of intercolonial transport facilities theoretically at least placed all three of them within relatively easy reach of the speculative buyer resident in one of them and thus enhanced the demand exercised at the auctions. At the same time cheaper and speedier transport had a considerable effect on the state in which the wool was sent to the primary market. High freight rates over long distances compelled the growers, on the whole, to send their produce to the coast in a scoured or washed state which provided a more economic ratio of weight and freight charges to value[1]. Railways tended to induce them to send it to the saleroom in the grease[2].

Changes in method and routes characterised overseas transport during this period. The development and growing use of steamships shortened drastically the time taken to carry woo from colonial ports to London and, to that extent, reduced interest charges falling on the growers. By giving them the choice between steam and sailing ships it also permitted them a speculative latitude which they had not possessed before[3]. Speedier transport, however, meant that the date at which the colonial clip became available for distribution in England was advanced. The concentration of the delivery of the clip into a shorter period forced an alteration in the timing of the auction series in London and, more importantly, aggravated the

(1) Cf. Royal Commission on the Queensland Border Railway, First Progress Report and Minutes of Evidence, South Australian Parliamentary Papers, 1890, Vol.3, Paper 33, Questions 57 and 720.

(2) Railways were only one factor in the change of course. See above, p.16.

(3) See below, section 5.

difficulty of preventing seasonal gluts. Similarly the opening of the Suez meant more than just a reduction in the time and cost of carriage to England. It opened a short and practicable route to consumers on the Continent. Considerable interest was stimulated in Australia where selling brokers anticipated an increase in direct Continental participation in the colonial auctions[1]. In Europe itself projects were initiated for the establishment of direct shipping lines to Australia, an interest based on the prospects of direct wool imports as well as new export outlets. The Messageries Maritimes opened a direct service in 1883. The North German Lloyd line linking the colonies with Bremen was opened in 1887 and in the following year Sydney was linked with Hamburg by way of Dunkirk and Antwerp by Robert M. Sloman's fleet. These additions to the existing services between Australia and England, partly presenting a response to the heavy demand for wool carriage between the colonial markets and the centres of continental consumption, exerted a considerable influence on the European patronage of those markets.

The influence of railways tended to concentrate the movement of wool to the three principal cities. During the last half of the century the extension of English shipping lines to subsidiary ports led to a contrary tendency to decentralisation. Lines to England from Moreton Bay and Newcastle[2], for example,

(1) See the London and Australian Agency Corporations comment published in the Argus, 3/1/1870.
(2) Standing Committee on Public Works, Report on the Proposed Railway from Narrabri to Walgett (with Minutes of Evidence), New South Wales Votes and Proceedings 1900, Vol.5. See the evidence of W.B.Sharp and M.March particularly.

diverted produce from the North Coast of New South Wales and th Darling Downs in Queensland away from Sydney. The ease with which they allowed growers to ship direct to England tended to reinforce consignment patterns of export which had become habitual during the 'fifties and 'sixties. (At the same time, c course, the success of those lines was dependent on the degree to which the interested growers preferred consignment to local sale). From a different point of view the inter-relation between transport and marketing patterns may be seen in the exten to which the fact that Liverpool was a natural port for ships on the colonial run contributed to its efforts to develop a woo market similar to London's; in the reduction in the number of ships laid on from Liverpool after London's supremacy had been established beyond doubt; and in the diversion of ships from Lo don to ports like Grimsby and Hull when the colonies replaced London as the major source of English manufacturers' supplies.

4. Storage.

Storage, in London, was similarly provided by specialist agencies in, but not strictly of, the wool market. Accom modation provided by the London and St. Katherine Docks, by the East and West India Docks, by Browne & Eagle and Gooch & Cousen was not devoted wholly to wool. The wealth of London's warehou accommodation (due to the volume of its trade), the continuous flow of wool imports throughout the year(1), and the non-warehousing functions which were performed for the wool trade tende

(1) In 1869 the quarterly distribution of imports was 165,000 in the first quarter, 289,500 in the second, 234,000 in the third and 60,000 in the last. See The Sales of Australian Wool in London..., p.36.

however, to make them specialists in wool warehousing.

The London warehousemen were, in fact, an integral feature of the London selling mechanism and their links with th wool trade were often intimate[1]. They attended to the weighi of the bales on their arrival in England and again before delivery to the buyer and they struck the tare deducted from th gross bale weights to make an allowance for the weight of the wool-pack. These were routine measures which it was obviously within their competence and convenience to take. It was also i the warehouses that the bales were set out for the buyers' examination before the sale, and it was the function of the warehousekeeper to draw samples from each bale for the selling broker and then to arrange the lotting of each clip in the manner determined by the broker after an inspection of the samples. Though, that is, they worked under the supervision of the selling brokers the warehousemen in fact performed the basic technical services on which the auction sales depended and provided the premises on which the wool was displayed[2].

In the colonies, on the other hand, the wool warehousemen were generally identical with other functionaries in the market. Before the 'fifties, storage was required both before and after a local sale and while the wool was awaiting consignment shipment. As many of the buyers and consigning agents were wholesale importing merchants they were able to use

(1)G.E.Browne, the founder of Browne & Eagle, brought to the business the experience of fifteen years employment with F.Huth & Co, wool-buying brokers and importers. A letter from B.Figdor to Messrs N.M.Rothschild & Son written in 1847 recommending him in these terms is held by the company.
(2)The functions of the warehousemen are described in detail in their own words in Colonial Wool Merchants' Association, op.cit. pp. 7-10 (Appendices B,C and D.).

their own mercantile warehouse facilities. Though the wool season was short most agents found that the quantity they held at any one time was fairly small and any excess they could not handle personally could easily be placed in general warehouses or in those which the wool sorters and packers were obliged to erect.

Specialist consigning houses became an important foca point in the exporting system from the 'fifties. Those of them which had not grown from general colonial commercial pursuits were less fortunate than the merchants. The growth of colonial production, the size of the proportion of it which they handled the seasonal nature of their demands for warehouse space and their competition, as a group, with general merchant consigning houses made it difficult for them to utilise existing mercantil warehouses. To store the wool awaiting shipment and to house goods such as they imported for their constituents, they built their own warehouses. Colonial wool selling brokers were under an even greater compulsion, particularly after the 'sixties, to build their own. They suffered the same disabilities as the consigning agents in securing access to existing warehouses, aggravated, perhaps, by a slightly higher rate of turn-over tha all but the very largest of the agents. In any case it was necessary for them to provide accommodation where the wool coul be viewed by the buyers. This condition alone denied them the use of the normal ill-lit and badly ventilated commercial warehouse. It was because they had to construct their own, and because the growth of the local auctions forced them to keep enlarging them, that the colonial brokers could boast the most

up-to-date and efficient buildings in the trade[1]. The functions which the London warehousemen performed for the brokers were in the colonies those of the brokers themselves.

The storage needs of the buyers exerted less influence on the structure of the trade. In London the wool was taken direct from the warehouse in which it had been displayed for sale and placed on rail or ship for despatch to the consuming centres or dealers' stores. The problem of buyers at the colonial auctions after the 'sixties and 'seventies were slightly more complicated. Those who chartered their own ships or who were not willing to accept the first freights offering were forced to store for some weeks at least. Unless, by virtue of the size of their operations or by the conduct of some other occupation like wool scouring, they possessed their own warehouse they made use of normal mercantile accommodation. This involved extra handling but did not seriously inconvenience them. It was forced on them by penal clauses in the conditions of sale, expressing the brokers' desire to clear their warehouses rapidly to allow a high turnover, requiring them to take delivery from the brokers' store by the expiry of the third day[2]

5. Assembly and distribution.

We have already reviewed the methods by which the supply of colonial wools was concentrated at the central auction sales in London, and how later this centralisation was splintered by the creation of competing auction organisations in Sydney and Melbourne - a multiplication which was merely the prelude to the

(1) The only London warehouse built specifically for wool in the second half of the century - by the Millwall Dock Co. in 1870 - incorporated the main features of design, lighting and ventilation which had been evolved in Australia.
(2) This was later extended to 14 days.

twentieth century unification of the Australian centres as one focal point for wool sales. The essential feature, in this context, which a study of those methods reveals is that the aggregation of supplies to a point from which they might conveniently be distributed was for the most part a function of the growers. The exception to this lay in the organisation of the colonial auctions between the 'forties and the 'seventies, for the basic functions of the buyers there was the provision of a middleman link between the growers who were unable or unwilling to accept that responsibility and the central market. Viewed in this way the colonial auctions during that period represented only intermediate collection points in the marketing system, in exactly the same way as the country storekeepers and the city wool merchanting houses did in the Cape Colony (1).

As important as the methods of aggregation and distribution, however, are the economic processes and decision which they represent - the decision to sell and to buy. Both present an aspect of disconcerting simplicity.

The Australian wool grower did not generally seek out the buyer prepared to give him the highest price. Nor did he generally design to release his stocks when and where market prospects appeared brightest. He simply controlled a flock of sheep which he shore, prepared the clip as best his ability or inclination led him, and sent it to"the market". The primary function of the auction was to find a buyer for him - a buyer

(1)See the description of South African marketing methods in F.B.de Beek, op.cit., pp. 114-116 and United Kingdom Ministry of Agriculture and Fisheries, Economic Series No.35, Report on the Organisation of Wool Marketing (London,1932) pp.66-7.

from whom he was separated by the intimidating and incomprehensible flurry of the saleroom; the vagaries of the weather and transport timed the offer of his produce. Lack of substantial liquid resources rendered him impotent before the impersonal forces of the market and his decisions were taken blindly in a routine fashion.

Yet, within the limitations imposed by the financial framework (which were admittedly extensive)[1], the growers' behaviour was more rational and deliberate than the traditional accounts imply. The fact that they set reserve prices to their clips may well have been of formal importance only and not at all indicative of a design to set a lower selling price, for the limits set were strongly influenced by what the brokers thought the buyers would bid and, when set too high, it was the reserve and not the offering which was adjusted[2]. Growers were, however, able to exercise a choice between selling privately from the station[3], selling privately through a selling broker[4]

(1) See below, section 6 and chapter 5, section 2.
(2) In many cases reserves were probably set by the brokers themselves (Colonial Wool Merchants' Association, op.cit., pp.12 & 15) The brokers' most frequent exhortation to growers who set their own limits was to "show a desire to meet the market" (Journal of Commerce of Victoria, 24/9/1883, R.Goldsbrough' & Co.'s market report). These facts, and the short time which elapsed before wool withdrawn under reserve bids were re-offered (only long enough for a revised reserve to be advised) indicate that the limits were not genuine notices of an intention to restrict offerings if bids were lower but merely formal restraints on the brokers' actions giving the growers a semblance of power and protection.
(3) T.U.Ryder in the 'forties and 'fifties and William Haughton & Co. at the end of the century provide examples of the relatively few buyers who operated in this way.
(4) In the 1898/9 season Sydney brokers sold a total of 417,517 bales of wool. 348,062 of them were sold at auction; 46,299 were sold privately after being withdrawn from the sales catalogues; and 53,156 without having entered the saleroomsat all. Sydney Wool and Stock Journal, Sydney, weekly, 7/7/1899.

or selling at the auction sales, and particularly before 1850 and after 1870, between selling in the colonies or in London[1]. These choices afforded, in effect, an element of discrimination between buyers and of determination in the timing of the sale. The choice of a private sale, however, was an essentially deviant policy while the second choice was limited to one between a date in the near future and another about three months later[2].

The choice between a local sale and consignment to London was nevertheless a very real one. From the 'fifties the colonial selling brokers, as a method of popularising their services, undertook to consign to England wool which had been bought in at the local sales under the growers' reserve[3]. Some of the growers grasped this opportunity to test both the markets at little extra cost[4] and others consciously and

(1) Cf. the deliberation given this question by growers like Cotton, (Billis & Kenyon, op. cit., p.233 "The John Cotton Letters" December 1843).
(2) The completion of the major railway networks in the colonies theoretically afforded the growers a further choice - that of varying the place of their local sales between Sydney and Melbourne. There is no evidence that any systematic advantage was taken of it.
(3) To a grower whose wool had brought in under reserve bid Richard Goldsbrough wrote in 1863, "As your ideas of price are above the colonial rates perhaps it would be as well to ship the wool, which would perhaps be more satisfactory as you would have the full advantage of a rise in England should such take place" and offered a cash advance "to within a shade of value" (Goldsbrough Mort & Co. Ltd., Unbound Correspondence, Goldsbrough - T.J. Gibson, 13/1/1863. I am deeply indebted to Goldsbrough Mort & Co. Ltd. for allowing me access to their archives in which this collection is held and for permission to quote from them.)
(4) About 1/- per bale was involved. Cf. Report, South Australian Royal Commission on Railway Construction (1875), Question 758; also Black Papers, Sir Charles Sladen - Mrs. Neil Black, 20/11/1880.

rationally varied the place of their sale. In a falling market sales were made in the colonies; in a rising one, in England[1] In the 'seventies and 'eighties, when wool prices were uncertai or falling, an even more common policy was to sell the coarser parts of a clip in the grease in the colonies and to send the remainder, scoured, to England[2]. (The value of those parts d not warrant the expenses of scouring and the freight on their greasy weight was disproportional to the value.) A further typ of choice embodied the same sort of considerations and was resolved on the same broad principles. Though generally this w a function of the consigning agents some producers (for example a company which did not employ agents) sent their wool by steamship in a falling market and by sailing ship in a rising one[3].

The art of buying appears similarly uninvolved at first sight. The interests of manufacturer-buyers were admittedly different from those of dealers and speculators. Within the limits set by the derivation of his demand the buying habits of the small manufacturer were regular and predictable. His resources did not permit him to stock against lengthy future requirements and he was forced generally to supply himself from one sales series to the next or over regular periods from a dealer; regularity of purchases and a clearance of stock between purchases was imperative[4]. The dealer, by definition, sought

(1)Cf. Report, South Australian Royal Commission on Railway Construction (1875) question 658.
(2)Cf. Royal Commission on the necessity for Improved Facilities for the Trade of the South-East, Report and Minutes of Evidence, South Australian Parliamentary Papers, 1906, Vol.2, Paper 20, questions 636-7.
(3)Australian Agricultural Company, Despatches from London, No. 759, 19/3/1896.
(4)The Sales of Australian Wools in London...,,pp. 10-11.

to match inventory movements against anticipated price movements and exercised a far more flexible demand[1].

The emergence of alternative markets in the colonies at first diminished rather than increased the flexibility of both manufacturers' and dealers' purchases. Manufacturers who had, in London, bid through buying brokers for wool which they had inspected personally[2] were forced, when buying in the colonies, to place their reliance on general description, reference to samples and the skill of the colonial buying broker to procure the wools they desired within the price limits they stipulated. Their confidence was often misplaced[3] and they consequently followed the prudent policy of retaining at least some of their orders for London where they were in full control of their outlays. To some extent this procedure was forced upon all buyers, including dealers, who wished to buy in the colonial market at all. Not only did it provide an element of safety in buying operations but it avoided concentrating purchases, which in London would have been made at quarterly intervals, into the four months (October to January) of the colonial selling season.

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(1) This question is considered briefly by Barnard, Y.B.E.S.R., Vol. VIII, No. 1.

(2) One of London's larger buying brokers purchased 25,872 bales at one series of sales in 1870. Only 1537 of them were bought to order; the other 24,335 had been inspected by the principals before the sale. See Edward Stavenhagen's letter in the Argus, 23/5/1870.

(3) Cf. the Raistrick Records, "Letters to Colonial Purchasers" J. Raistrick-W.H. Chard, 8/5/1879: "Competition is so keen and other manufacturers are buying wool in London so much cheaper than ours that it will place us in a very awkward position, and we consider that our loss on this season's importations will be over £1,000. Your purchases have amounted to 9 to 10,000£ and for such a large amount to be laid out at heavy loss is very depressing to us and we cannot bear to think of it".

(It was not until, among other things, the technique of shipping some purchases by fast steamers and some by slower sailing vessels was perfected that a more even spacing of supplies was achieved and a full localisation of demand in the colonies permitted[1].) This tendency to divide orders between the two markets limited the ease with which buyers could vary their buying programmes. Telegraphic communication in the 'seventies made it possible to supplement or modify orders placed at the beginning of the season as changes in the comparative price levels of the two markets seemed to demand. Nevertheless the buyer, once the colonial order was executed, had to assume that it met his specifications and refrain from picking up parcels in London which could be substituted for it. If, when the shipment arrived, it was found unsatisfactory his ability to replace it depended on his willingness to treat it as a speculation and offer it for resale in London[2]. In time these difficulties were overcome. Brokers acquired greater familiarity with the requirements of their main clients and the provision of detailed up-to-the-minute news from the colonial markets in the consuming centres enabled buyers to operate with increasing confidence.

These considerations were complicated by the techniques and problems of buying imposed by the nature of wool itself.

(1)This is discussed by foreign buyers in Australia in J.Leach, Australia v. London as the World's Wool Depot (Sydney, 1894.) pp. 23 and 27.

(2)Raistrick Records, "Letters to Colonial Purchasers", J.Raistrick-W.H.Chard, 8/5/1879 : "Of the 67 bale lot marked "B" we have left 46 bales in the hands of Mr. Jacomb for sale in the present sales...His valuation is below the cost price so it seems there will be a considerable loss with them..."

The suitability of any bale of wool for the particular needs of any manufacturer could be gauged only by a personal appreciation of its fineness, length, soundness, lustre, colour etc. gained by handling and viewing it. An added difficulty was the necessity to envisage these properties as they would appear after the wool had been scoured by the manufacturer. As all wool, whether bought scoured or greasy, was subject to this further washing before processing, one of the most exacting of the buying broker's tasks was the estimation of the amount of clean wool each bale would yield[1].

6. Riskbearing.

The marketing of wool, as of any other commodity, was attended by risks, and the long distances which separated producers and consumers rendered it peculiarly liable to physical

(1) Clean landed costs formed an important indication of the success of a broker's operations but until the end of the century Continental buyers made more use of scouring yields in their orders than the English. Tables showing the clean cost of wools of varying yields bought at different prices were in use from at least the 'sixties (In 1866 J.T.Simes, a London wool selling broker, sent the Australian Agricultural Company a copy of "A Table showing the cost of wool in the scoured state when bought at from 8d. to 3/4 per lb. and wasting from 5% upwards"). It was to facilitate the estimation of yields that a French buying broker in London proposed the use of identically sized wool bales with net weights clearly marked. See P.Pierrard, The Standard Wool-Bale and the Improvements necessary in the Universal Wool Trade (London, 1887.), originally published in French in 1873. Hypothetical calculations illustrating the financial losses attributable to a 2% misjudgment of the yield are given on p.17. More complicated tables stating the price to be paid in pence per pound in London and Australia to get one kilo of clean scoured wool from bales of varying yield to be landed in France at various prices in francs comprise the sheet published by P.Pierrard under the title of French Parities and Ready Reckoner for Purchasing Wool in London (London, 1891).

hazards. Some of these risks were, of course, insurable. Marine insurance was provided for all sea carriage and cover against fire was taken out while the wool was in store either before the sales or awaiting distribution by dealers.

The protection with which the purchasers at the London sales provided themselves followed the customary commercial pattern and presents no unfamiliar aspects. On the other hand the methods by which the wool was insured on its journey from Australia changed considerably during the second half of the century.

In 1840, when all the wool was consigned to England o account of the growers or colonial purchasers, marine insurance was arranged in England by the importing agents, to whom the name of the vessel and the quantity shipped were communicated and at whose estimates the insurance was effected. It was cumbersome, for they had first to secure a general cover and and later, on advice sent after the wool was loaded and received perhaps whenit was in or near England, declare the particulars (1). Even when colonial insurance companies had grown sufficiently to offer their services to the consignors th pattern was not changed readily. The consignees preferred an English company with whom they might settle claims immediately; colonial premiums were slightly higher than those quoted in England; and, if colonial allegations were based in fact, the importers received either a commission of ½% on the cost of the

(1) Cf. Black Papers, Gladstone & Sargeantson - Black, 17/11/18

insurance from the consignors or a rebate from the company[1]. Consigning agents arranged cover on inland and coastal transport and colonial storage with the local companies, the English companies declining this class of business from lack of local knowledge. This strict division of functions was broken down in two ways. The English companies established branches and agencies[2] in the colonies which gradually led to a relocation o the site at which the insurance was effected; and the acquisition of local knowledge, the competition of local companies, and the desire of the growers for comprehensive cover from the shearing shed to the saleroom[3], respectively enabled and forced these branches to provide full-scale marine, local transport and fire cover. At the same time more and more of the clip was leaving Australia at the risk of foreign buyers and, after the 'eighties, much of it was being sent direct to the Continent or the United States. Those buyers were indifferent whether they insured with English or colonial concerns, for neither operated in the countries to which the wool was despatched. Moreover, while English buyers tended to continue insuring their purchases in England[4] it was then a case of the

(1)The allegation is impossible to verify, but see Sir Daniel Cooper's and Young & Ehler's letters to the London Times, 16/3/1871 and 17/3/1871 respectively. In 1844 the Bank of Australasia was induced to give up to consignees "the usual allowance of 10% discount on the amount of Premiums and 5% brokerage made by the Insurance offices"in respect of its own policies taken out on wool hypothecated to it (Letters to Londo No.210, 14/11/1844). It is quite possible that the consignees continued to receive this perquisite thirty years later.
(2)The large pastoral finance and consignment houses found the insurance agencies a profitable sideline.
(3)This desire was sharpened by the violence of some of the shearers and transport workers during the 1890 strike. See The Australian Insurance and Banking Record, Vol.15,p.935.

(4)Cf. The Letter Book of John Reddihough,H.K.Newsome-Hick, Martin & Drysdale (wool buying brokers of Sydney) 4/12/1891. I am obliged to the Librarian of the Brotherton Library,University of Leeds, for permission to use these manuscript records.

owner controlling his own insurance arrangements and not one where an agent dictated them to his principals.

The uninsurable risks derived from the market itself. They comprised all the losses, measured as the difference betwe actual realisations or expenditures and those which would have resulted from a different course of action, which were due to ignorance or misjudgement or to changes in anticipated supply o demand changing the relationship between prices in Australia an those in London or the manufacturing centres. For the growers this risk was inherent in their choice between a local sale and consignment to England, and between sailing and steam vessels. As we have indicated above (and will investigate further below) both the actual area of choice and the proportion of growers to whom it was effectively open were small. Accordingly, while analytically it was, and must be treated as, a market risk, in fact it had little perceptible influence on their actions. Because they could take so few steps in adjustment growers who recognised the risks tended to exclude it from their calculations. The risks and the possibility of adjustment, in fact, were unrecognised by the majority of growers who consistently shipped their produce to the same market as quickl as possible each year[1].

In a slightly different form market risks were most

(1) Most growers would have recognised that there was a speculative element to their consignments, but it might be hazarded that their recognition would have been couched in vagu and general terms. If pressed some would have defended their consistency on the grounds that in the long run the losses would have been balanced by the gains. Cf. Black Papers, Black - Gladstone, 23/11/1865.

clearly appreciated and most keenly felt by those who financed consignments. On the shipment of their produce growers were abl to take an advance against its realisation from the consigning agent. The agent in turn, as we shall see below, secured a compensating advance from the English importing agent. The risk which these financiers ran was that an unexpected decline in values or a faulty valuation might cause the realisation to fall short of the original advance made to the grower and that the deficiency might not be met by the grower or the consignment agent. The hypothecation of the wool insured against total repudiation and the limitation of the advances, generally, to below 90% of its estimated value provided some protection against misjudgement of the market (1).

The way in which woollen manufacturers and, before the structure of the industry changed in the 'sixties and 'seventies worsted manufacturers, stocked themselves (in respect of colonial wools) directly from the London sales by buying small quantities at frequent intervals suggests that the growers, whether unwittingly or unwillingly, in fact bore a very high proportion of the risks for the rest of the trade. Nevertheless the dealers - woollen staplers, topmakers and merchants or worsted spinners - were the specialised riskbearers. They held

(1) Despite these protective elements Jowitts lost a total of £22,000 over five years on advances made to four Australian consignors. The consignments were consistently, though honestly over-valued and the colonial firms were unable to meet the accumulated deficits. It cannot be determined whether these consignments were made for growers or on the consignor's own account. Jowitt Records , "Colonial & Banks Ledger 1877-84.", "General Ledger F, 1872-81.", "Broker's Ledger 1872-81.".

the wool against an anticipated demand which might change either in quantity or in quality[1]. Once purchases were made on a large scale in Australia these same risks were also borne by all who bought there, whether it was for resale or for direct consumption. To these groups the concept of market risks was most real and most appropriately applied. Their attitude was not that of growers blindly hoping that realisations would cover "expenses" and provide some sort of income, but that of merchants and manufacturers to whom the wool represented an investment which could be reckoned exactly and about which a statement of profit or loss could be constructed.

There was no way in which they could completely avoid these risks, though normal business techniques could be used to minimise them. From the late 'eighties attempts were made to establish futures markets through the operation of which some of the risks might have been shifted to even more specialised agents. In 1887 a futures market for raw wool was opened in Havre, a city which imported large quantities of South American wool and which already had successful futures markets for cotton coffee and leather. In the same year a futures market in tops was established in Antwerp whose success led to its imitation in Roubaix-Tourcoing in 1888 and Leipzig in 1890. In 1893 Antwerp

(1) The risk-bearing functions of wool merchants and dealers are outlined in U.K. Ministry of Agriculture and Fisheries, Economic series No.7, Report on Wool Marketing in England and Wales (London,1926), pp.51-55, and P.Nettl, "Some Economic Aspects of the Wool Trade: Structure and Organisation of Distribution", Oxford Economic Papers, Vol.4, No.2 (July,1952). Essentially they are qualitatively the same as those borne in the nineteenth century.

added futures trading in raw wool. Though futures contracts became common in England (1) the idea of organised futures market in wool was never accepted there (2).

It is significant that these developments took place at the end of the 'eighties, for there was an intimate connection between them and the shift of the main focus of French, Belgian and German purchases of imported wools from the European centres to the producing countries. The increased risks demanded new institutions. In general, however, their success at least before the first world war was limited. Raw wool cannot be standardised to the degree or with the assurance which is essential to the operations of an organised futures market. Antwerp soon abandoned its efforts and while the marke at Havre was fairly active at the end of the century it was never a powerful influence. Tops can be standardised with more success and worsted merchants, topmakers and worsted spinners were able to hedge their purchases in the tops futures markets. Woollen manufacturers, who did not use tops, and growers still consigning to England (who were, in most cases, ignorant of the workings of futures sales) were excluded from the benefits of these markets (3).

(1)Cf. U.K.Ministry of Agriculture and Fisheries, Economic Seri No.7, op.cit.

(2)The Colonial Wool Brokers' Association in London resolved in 1895 that "the effects of the Terminal Market for Tops are prejudicial to the interests of the producer and consumer and affect adversely the entire woollen industry"(Quoted in G.T.Blau The Theory of Futures Trading with special reference to the Marketing of Wool(typescript Ph.D. thesis, London School of Economics, University of London, 1942)p.36 from W.Senkel, Wollproduktion und Wollhandel in 19 Jahrhundert,(Tubingen,1901) p.98.)

(3)The history and problems of futures trading in wool are admirably treated in Blau, op.cit.; F.B.de Beck, op.cit.,pp.79-8 R.Delaby, Le Marche International de la Laine(Paris,1942)pp.194-196; J.G.Smith, Organised Produce Markets(London,1922)pp.167-17

7. Provision of credit.

The particular pattern taken by the demand for short term credit in the export trade[1] arose from the structure of t trade itself. The inability or unwillingness of the large English wool dealers to extend their operations to the colonies before the last quarter of the century laid the task of financing the time taken to transport the wool from the shearin shed to the manufacturing countries on the colonists. As long as they sold in the colonies the problem did not affect the growers to any extent. Once the consignment system became widespread, however, it assumed formidable proportions.

In the 'forties and 'fifties the distances, and the slowness and inefficiency of transport, both between the pastoral properties and the colonial ports and between the latter and the English market meant that the physical process of delivering the wool and returning the realisation took at least from four to seven months. To that period must be added the possibility of delay in effecting a sale in London. The auctions were held on a strictly periodical basis with few private sales being made between the series, and a clip might therefore lie warehoused in London for eight to ten weeks befor being offered and a further period of the same length if it was withdrawn from sale under grower's reserve. Though the time was gradually reduced during the century, the fundamental problem remained down to 1900.

This delay of up to nine or ten months before the

(1) Long term financing was extremely important in the development of the market but was not a function of it. It wil be considered in chapters 5 and 6 below.

remittance was received affected the growers with varying intensity. The wealthier could ignore it, shipping the wool without anticipating the realisation in any way. Those who sol in the colonial markets avoided the worst of the delay. The vast majority of the growers who consigned their clips, on the other hand, were governed by the problems associated with a delayed "harvest income". Income was received many months afte the year's production was completed; major disbursements fell due at inconvenient times throughout the year; their liquid resources were small in relation both to those expenses and to the value of their produce; and the opportunities for sideline production by which their funds might be augmented were limited. In the 'forties and 'fifties when the consignment system was becoming general they were restricted to the sale of surplus an fat stock and the production of tallow. From the 'fifties mixe farming, and from the 'nineties frozen meat for export ,widened the range.

For the grower who consigned there were two ways in whi which this period of delay could be financed. If he arranged the consignment himself, without the intervention of a colonial agent, he could draw on his English consignee and discount the draft,generally secured by the shipping documents, either with the banks or with merchants requiring sterling exchange (1). This method of export, it has been indicated above, was already becoming unusual by the 'forties, and discounted growers' drafts therefore played only a minor role in financing exports. If a

(1) E.g. Black Papers, Gladstone & Sargeantson - Black, 6/1/184

consigning agent was used an advance against the realisation was obtained from him (1). This simply shifted the problem from the grower to the agent.

This did not embarras the agents before the 'forties for their advances were made in the form of a long-dated bill handed to the grower who negotiated it as personal paper (2). When these notes were replaced by cash in the early 'forties they transferred the burden by drawing on the importing agents and discounting the bill. Exceptions to this were provided by those agents who shipped wool for the growers mainly as a means of remitting funds to England and who were not, therefore, seeking accommodation to cover their expenditure and by those to whom remittances to cover the advances were sent prior to the beginning of the season (3).

(1)The security for the advance varied from lender to lender and changed as the century progressed. Notes of hand and liens on wool were the two most common, though notes became less common after the 'forties. A letter of authority was presumably taken by the agent to enable him to draw against produce which was not necessarily hypothecated to him.

(2)Black Papers, Black-Gladstone, 25/6/1845: "You are already aware of the change that has taken place in the system of making advances on wool here; before I went home (1842) it was done by Bills drawn by the Merch^t or his Constituents or Connections at home. This bill he handed to the Woolgrower in exchange for his wool in the name of the advances, and the wool he consigned to his connection in London. Now the advances are made in cash." The interpretation of this sentence depends on one word in the manuscript. The word "or" in the phrase "or his Constituents" may be "on". The second meaning is possible but less likely; it would imply that the bills were bills of exchange, founded on th wool, which were handed to the growers (without bills of lading? to be discounted by him.

(3)Black Papers, Galdstone & Sargeantson-Black, 28/6/1845: "We enclose Heywood's Bills for Five thousand pounds... and engage further to accept five thousand pounds.... in all ten thousand pounds which we request you to use for the purposes of making advances on consignments of wool to our care... ".

The English agents, then, secured the short term export credit in the trade. Their names were used on the documents which enabled the colonists, whether growers or agents, to acquire cash long before the realisation of the wool and they were the ones on whom fell the contingent liability of meeting the bills before the sale.

This liability was not one which they relished. The wool ships arrived fairly soon after the drafts, which were sen by speedier mail ships, and as the usance was sixty days[1] and the sales held quarterly many bills did not fall due until after the importer had realised the consignment. If the bills were unencumbered he was, therefore, able to meet them from the proceeds. The importer's course was more complicated when the bill fell due before the sale or when the colonial agent was forced to attach the shipping documents to it before discounting it with the bank. The importers were often unable or unwilling to lay out their own funds. In the years before the trade became specialised the resources which each importer could earmark for the wool trade were small, and when the scale of enterprise and the degree of concentration had grown large importers preferred to invest their funds at the higher colonial interest rates.

They consequently sought outside accommodation. When

(1) In 1870 some Melbourne merchants suggested that it should be extended to ninety days, comparing the wool trade unfavourably with the China and India trades with their long bills and the continuous sale of their produce. A longer bill, it was argued, would mean that the wool could always be realised before the due date. The proposal was not endorsed by the Melbourne Chamber of Commerce to whom it was addressed. See Argus, 13/6/1870.

the bill fell due before the sale overdrafts were obtained from the banks[1], on the security of the importer's name or other assets, or advances taken from a wool selling broker in return, among other things, for an undertaking to use his services at the auctions[2]. Banks retained their security in a discounted bills by witholding the bill of lading, without which the importer could not take delivery of the wool, until the bill had been met or they were satisfied it would be paid. Some importers may have enjoyed such good relations with the Anglo-Australian banks that the documents were released on their unsupported acceptance of the draft; they might have secured credit to the amount of the draft, that is, on their names alone[3]. Others obtained access to the wool after the drafts were endorsed by acceptance houses, for this enabled the banks to rediscount the bills on the London short term market. Failing these two avenues the importers could refinance the shipments by borrowing either from their banks or wool selling brokers, on the security of the wool, their names or other assets[4]. It was obviously better, however, if they could avoi the supplementary interest charges of a loan and have to meet

(1) Cf. Jowitt Records,"Private Business Letters,No.2", R.B.Jowitt-Manager, Bradford Old Bank, 24/1/1901.
(2) The Sales of Australian Wools in London... ,pp.131-2.
(3) There is no indication that the substitution of warehouse warrants for bills of lading, either directly or indirectly as security for bills of exchange, was possible before the end of the century.
(4) When importers borrowed from wool selling brokers or others against the bills of lading (Cf. The Letter Book of John Reddihough H.K.Newsome-Willans & Overbury, 6/3/1890) they appear to have used the normal sixty day bills and not the sight drafts nowadays associated with refinanced shipments.

merely the commission charges of an acceptance house or the bank. The ability to do this increased with the scale of the importer's business and the degree to which he was specialised in receiving wool consignments, and this pressure provides one part of the explanation of the concentration of the trade in England after the 'fifties. In fact, by the third quarter of the century the links between specialised importers and the banking and acceptance houses were sometimes very close indeed (1)

At the same time, not all discounted bills did have the bills of lading attached to them. The policy of the banks in the colonies varied in the 'thirties and 'forties. In 1836 the plea of the Hobart Branch of the Bank of Australasia that it mig might buy bills of exchange on London without taking the shipping documents was refused by the Inspector and Court despit the support urged for it by Jacob Montefiore who thought that Sydney merchants would also object to surrendering them (2). On the other hand the Commercial Bank, whose twelve local directors were all interested in wool shipments (3), may well have permitte the practice to at least a select group of favourites. In at least the early years of their foreign exchange operations the

(1) The London Board of the Australasian Agency & Banking Corporation Ltd., with which R.Goldsborough & Co. amalgamated, included J.C.Dimsdale of the banking firm of Dimsdale, Fowler, Barnard & Dimsdale; James Alexander of Redfern, Alexander & Co. was a director of the Bank of Australasia; F.J.Sargood associated with Sargood, King & Sargood was a director of the Consolidated Discount Co.Ltd.; A.L.Elder and J.L.Montefiore were both on the London branch board of the Queensland National Bank; and Edward Hamilton was Governor of the Australian Agricultural Company and a director of the Bank of Australasia.
(2) Bank of Australasia, Letters to London, 12/3/1836, Inspector's Letter Book, 13/12/1836.
(3) Ibid., Letters to London, 18/2/1845, para.6.

banks discounted bills guaranteed under letters of credit from the head offices without taking security over the bills of lading[1]. In other cases consigning agents' discount accounts, through which the proceeds of negotiated drafts were passed, were occasionally partly secured in bulk by the deposit of liens on wool, stock mortgages or the growers' personal notes, leaving unattached the individual shipping documents[2]. Another important exception to the banks' general rule was their willingness to discount drafts without hypothecating the produce providing they were endorsed with two good colonial names[3].

The specialisation and concentration of the agency business after the 'fifties enabled large firms to operate discount accounts secured by other assets or perhaps by their names alone. This development supplemented the similar one in England in the solution of the problem of providing funds for the colonists' advances without at the same time embarrassing the English importing agents. The large specialised English concerns whose colonial correspondents included large numbers of relatively small concerns were able to utilise their connections in the London money market to meet the banks' demands for satisfaction. Large colonial firms were able to discount clean bills which taxed the consignees only if they fell due before the sale.

The provision of finance for wool buyers in London was

(1) Bank of Australasia, Letters to London, 16/11/1844.
(2) Ibid, Letters to London, 22/6/1844, para. 15 and enclosure.
(3) Ibid., Inspectors' Letter Book, 13/12/1836 and Letters to London, 12/3/1844.

less complex. Dealers operating at the sales operated on credi made available by their local banks (1), London discount and acceptance houses (2), and wool selling brokers (3), to all of whom the transactions represented merely normal commercial procedures. Manufacturers who bought directly from the sale-room were similarly provided for by financial institutions and, especially in the case of European buyers, were also able to obtain credit from buying brokers through whom they purchased (4). Other manufacturers bought from dealers at lengthy credit (5).

When we turn from wool exported under consignment to wool sold in the colonies the same parallelism between financial services to the grower and marketing services remains characteristic. In their capacity as the growers' marketing agents the local wool selling brokers made them an advance befor the sale. The instruments on which they lent were generally woo liens or promissory notes although the distinction drawn betweer security for marketing and longer term credits tended to become blurred and frequently no explicit security was taken for the advance (6). They were made available first from general funds lent to the brokering firms by the banks on the security of mortgages, liens etc. taken from the growers and deposited with them, and the general assets of the brokers. Later, from

(1) E.g. Jowitt with the Old Bradford Bank.
(2) Cf. The Letter Book of John Reddihough, H.K.Newsome - Hubbard & Co., 8/7/1890.
(3) Cf. The Sales of Australian Wools in London... , pp.132-4.
(4) Ibid., p.25.
(5) Jowitts of Leeds gave credit terms varying from 14 days to six months; with regular customers they were individually negotiated. The whole question is thoroughly examined in A.J. Topham, The Credit Structure of the West Riding Textile Industry in the nineteenth century., M.A.Thesis, Department of Economics, University of Leeds, 1953.
(6) See below, chapter 6.

the 'seventies and 'eighties, they were made directly from the broker's own banking department the funds in which formed part of the firm's capital (and were even augmented sometimes by deposits (1)) and which were perhaps backed by a non-specific bank overdraft.

Colonial purchasers at the local auctions who sent their wool to England for resale at London on their own account were financed in exactly the same way as the grower or consigning agent. Complications arose only in the case of purchases made on behalf of non-residents. The problem was basically the same as the one which vexed the relations between consigning and importing agents. Wool selling brokers demanded payment before the wool left their stores and, unlike their London counterparts who could accept bills endorsed by acceptance houses, they insisted on cash. The wool buying brokers through whom the non-residents purchased had insufficient resources of their own and commanded insufficient credit, at least before the end of the 'seventies, to meet any extensive purchases without aid. Their initial problem, therefore, was to find enough funds to cover the operations of the first fortnight or so of each selling season. Subsequent purchases might then be made with the proceeds of the drafts negotiated against those early shipments. For the branches of English and foreign buying houses which operated in this fashion the problem was solved by the despatch of remittances. Australian firms buying for foreigners were forced to seek remittances from some of their customers or to

(1) Many of the large pastoral finance and wool broking concerns like R. Goldsborough & Co. advertised for deposits in the 'eighties. See below, chapter 7, pp. 267-70.

use for this purpose the proceeds of goods consigned to them by their customers for sale in the colonies[1]. By the time the colonial auctions had become firmly established in the 'eighties and 'nineties the buying firms were able to rely more on their internal resources and bank credit to tide them over the first of the season's purchases[2]. It was not until pre-shipment finance under letters of credit was developed towards the end of our period, however, that this difficulty, and the expenses of remittance, were completely overcome.

To finance subsequent shipments the buyer had to depend on discounting drafts which were drawn, almost universally, under letters of credit established by the non-resident through the London office of an Australian bank[3]. This proved as embarrassing to the overseas client as it had to the agents who received the growers' consignments. To obtain access to the wool the support of acceptance houses, banks or other institutions was needed. While they were specialised financial risk bearers these bodies were, at first at least, less intimately connected with the affairs of wool textile manufacturers than the English dealers and London wool selling brokers. In addition, Continental buyers were forced to

(1) W.H.Chard, wool buying broker of Sydney, for example, sold cloths for J.Raistrick, a woollen manufacturer for whom he bought. See Raistrick Records, passim.
(2) Nevertheless some firms found it necessary to obtain credit from other sources. D & W Gibb, who bought in Melbourne for speculative resale in London, obtained cash credits from Jowitt (to whom they consigned) through Jowitt's Melbourne branch, Jowitt Records, "Private Business Letters No.2", R.B.Jowitt - T.S.Beaumont, 21/12/1900.
(3) Letters of authority drawn on London acceptance houses served the same purpose as a letter of credit and were used occasionally. See Raistrick Records, J.Raistrick - Chard, 1/9/1875.

transact their exchange operations through London[1] where, whatever their size and importance in their homeland, they were known only to wool buying brokers. The central role played by the Australian and Anglo-Australian banks in the techniques of financing wool purchases led eventually to their acquisition of an unrivalled, highly detailed and specialised knowledge of firms importing wool from Australia. Another problem arose fro the fact that the drafts, being sent by mail ship, fell due before the wool could undergo any extensive processing. This proved a handicap and deterrent particularly to those smaller woollen manufacturers who preferred to pay the bills out of the proceeds of the manufactured goods, and to a slighter degree to topmakers and worsted spinners. It was overcome, to some exten by the development of techniques which substituted other securities for the bills of lading and extended the credit beyond the currency of the bills of exchange.

It is evident, then, that the form in which export credit was provided depended on the method of marketing. As long as the growers consigned their clips to England the provision of finance had to follow the consignment pattern, for at every stage at which credit was given the wool formed the secur ity. Thus the grower took his advance from the consigning agen and the consigning agent took his advance, through a bank or some other discounter, from the importing agent. London, in

(1) The operation of the Comptoir d'Escompte de Paris benefitted French buyers only. See the directions given to prospective Italian buyers in F. Gagliardi, L'Australia (Firenze, 1897), p.13. Japanese buyers were placed in an even more unfortunate position and their letters of credit had to be ironclad. See the arrangements made by Okura & Co. of Tokio with Jowitt's Melbourne branch, Jowitt Records, "Jobbing (erased) Orders", p.116.

other words, provided both the growers' marketing credit and that required to carry the wool to the manufacturing country in one process. The process was divided, however, when the colonial auctions became primary distributive markets. The growers' marketing credit was provided by Australian sources within the colonies, while the task of financing the transport was left to organisations overseas. In this case the growers' wool was the security for the marketing credit, and the buyers' wool for the transport. Only in the case of terminal credits - those given to importing agents, to buyers at the London sales, and to importers - was financing in the wool trade diffused and absorbed in the general stream of commercial financing.

If, however, London remained the focal source of marketing credit as long as it remained the focal point of the consignment system, it is also true that it retained its marketing importance only as long as it was the only source from which that credit could come. An essential condition of the development of the colonial auction system was the ability of colonial institutions to provide that finance on the spot. That ability was a product of the changes in relative interest rates in the colonies and England and the large-scale import of capital into the colonies in the 'eighties.

Chapter 5

Competitive Practices in the Market.

Competition in the markets for the services required by the sellers when disposing of their produce was limited by price stability and standardisation which was frequently associated with price leadership and governed through trade associations and commercial organisations; and it was limited by the overriding obligations imposed by the debt structure of the pastoral industry and the financial structure of the export trade. The distributive trade was only imperfectly competitive The wool auction sales of the nineteenth century lacked the ful degree of free competition attributed to them.

These features of the marketing system were of direct and immediate significance in the determination both of the growers' net realisations and of the delivered prices of manufacturers' raw wool supplied. It is evident that imperfections in the market for wool will affect the price of wool. In addition the contingent weight of the costs of the multiplicity of marketing intermediaries was of great importanc The chain linking producer and consumer was a long and complicated one. From the grower the wool passed either through the hands of a consigning agent to an importing agent, to a selling broker and then perhaps through a dealer or buying broker to the consumer, or through a colonial selling broker to buying brokers, dealer or consumer. Efficiency and economy in the trade, and consequently the minimisation of those costs, depended partly on the ability of the various agents to effect economies of scale and specialisation, and partly on the freedo

and fullness of competition between them. During the second hal of the nineteenth century business was concentrated into fewer, more specialised , hands at each stage of the market. This made it possible for them to pass some savings in costs on to the growers and manufacturers but at the same time it tended to reduce price competition between them.

Those areas of imperfection in the markets for agents' services which are dealt with in section 1 and 2 below were also of major significance in subsequent developments of the marketin structure, for they both implied and created rigidities which tended to consolidate the existing structure and place obstacles in the way of change. These specifically structural implication will be discussed at length subsequently (1) ; here the practices will be examined mainly in terms of their effects on wool prices and marketing costs.

1. Pricing the services of marketing agents.

The determination of prices in the different markets for the services of agents in the wool trade varied considerably from one to the other. The rewards of wool buying brokers fluctuated frequently and the rates charged to different clients varied with the respective bargaining power of the participants; commissions charged by English importing agents similarly varied from client to client, but the differences were confined to a relatively narrow range and the rates were altered much less frequently; colonial exporting agents did not all receive the same commission but again the rates were fairly stable [illegible] and in this case each one treated all his own constituents alike

(1) Chapters 6 and 7.

London warehousemen charged standardised rates which fluctuated readily; non-discrimination, stability and uniformity characterised the commissions due to selling brokers both in London and in the colonial centres. In some of the markets pri competition between the agents was severe; from others it was absent. Wool dealers, whether in England or the colonies, fall into a separate category, for payment for their services in creating time and space utilities was implicit in the very variable profits they obtained from the sale of their produce.

Buying wool to order was an extremely highly skilled task calling for considerable experience. Individual firms and buyers were therefore able to command different prices for thei services. Moreover, these characteristics were so clearly the attributes of individuals and the differences in returns based on them so clearly indicated the personal worth of the buyers that no move was ever made to try to standardise their charges. Their very skill, however, tended to diminish competition between them. Having accustomed a buyer to this particular needs over a number of years, and having satisfactory service from him, a manufacturer was wary of discarding him and going through the same process with another. Each buying broker, in other words, was able to retain the major part of his clientele under most circumstances. To expand his trade, therefore, each was forced to attract clients from the pool of uncommitted manufacturers who purchased directly in the sale room or from dealers rather than from rival brokers. One consequence of this was that the rates charged by any one buying broker could vary widely. Agreements made when the manufacturing industry was

prospering could be maintained when conditions were less favourable, Further, by not publishing their rates they were able to discriminate between their clients and maintain those discriminatory rates even under adverse conditions. At the same time, particularly valuable contracts might be made and maintained at rates favourable to the manufacturer. The manufacturers' dependence on the technical skill and knowledge of the brokers may have been of more consequence in the case of colonial buyers than in England where the manufacturer could always attend the sales and inspect the wool himself before bidding for it through the broker. It was nevertheless an important feature of the English trade.

The records of Robert Jowitt & Sons illustrate the extent to which the rates could be varied[1]. Some of the clients who retained the firm as a buying broker were charged on a commission basis, the rate ranging from ½ to 2½% plus a forwarding charge of ¼ or ½%. To some extent the differences in these charges reflected different credit conditions attaching to the transaction. Terms of payment varied from cash within the "prompt" period allowed by the selling broker to three, four, five and six month bills with interest specified in advance or set at ½% above the Bank Rate at the time of the purchase. Clients were sometimes given the option, for example, of paying 1% commission and 5% interest on three month's credit or of paying 1½% commission and the same rate of interest on up to six month's credit. Not all the instances of unusually high

(1) The following discussion is based on the Jowitt Records, "Jobbing (erased) Order Book" and "General Ledgers". Specific individual references would be confusing and unnecessary.

or low commissions, however, can be traced to this source and the remainder represent true differences in the pricing of the firm's services. This is shown more clearly in the cases where the firm did not charge on a commission basis but stipulated that the client should accept the purchases at specified advances above the price paid in the saleroom. A typical example being that on all wool up to 12d. per lb. in price the principal paid an additional ½d., and on all over 12d. an additional 1d. In Table XIX a sample of the rates charged on this basis by Jowitt during 1886 is presented. In the twelve agreements from which these rates have been selected, the rates themselves are independent of the terms of payment. It will be seen that on wool worth, for example, 7d. per lb. Jowitt's

Table XIX

Rates charge in 1886 by R.Jowitt & Sons as buying brokers under agreements made between 1879 and 1884 and in 1885.

Note: Agreements made between 1879 and 1884 presented in brackets.

Selected price of wool in saleroom.	Number of instances in which agreements specified payments above cost price of:										Total Agreements
	½d.	⅝d.	¾d.	⅞d.	1d.	1⅛d.	1¼d.	1⅜d.	1½d.		
d. per lb.	number										
7	1 (1)	-	3(2)	1(1)	1(2)	-	-	-	-	-	6(6)
10	(1)	1	1(2)	1	3(3)	-	-	-	-	-	6(6)
13	-	-	1(1)	-	2(4)	1	1(1)	-	-	-	6(6)
17	-	-	(1)	-	3(1)	-	3(3)	-	-	(1)	6(6)
21	-	-	(1)	-	1	-	2(3)	1	2(1)	-	(1)	6(6)
25	-	-	(1)	-	1	-	2(2)	-	2(2)	1	(1)	6(6)
28	-	-	(1)	-	1	-	2(2)	-	2(1)	-	1(2)	6(6)

return varied from ¼d. to ¾d., and that ½d. was earned on wools varying in value from 7d. to as much as 28d. Moreover, the extent of the variation is not due simply to the fact that six of these agreements had been concluded at different times over period of six years for even among those made in 1885 the rates differed very appreciably.

A similar discrimination is evident in the rates which Jowitt's charged for purchases made for clients by their colonial branches. Agreements were made in 1888, 1889 and 1890 to buy in South Africa at rates of 2, 2½ and 2% respectively. To a Japanese buyer in 1893 the Melbourne branch charged 4% on the first £10,000 worth, 3% on the second £10,000 worth and 2½% on all purchases subsequent to £20,000; in 1896 its normal rate was only 1½%. At the same time Jowitt's paid different rates t other colonial brokers who ac ted for them. In 1886 agreements were made with two South Australian firms to buy wool for Jowitts' Leeds stock, one at 2% commission and the other at the same figure less a rebate of ¼% to Jowitts. In 1885 a New Zealand broker acted for the firm at a commission of 2% togethe with the 5% primage on the freight as a perquisite.

An equally wide range characterised the commissions charged by English importing agents in the first half of the century. In the 'forties they varied from the 4% levied by Gladstone & Sargeantson on the clips which Neil Black sent to them[1] to the normal rate of 2½%. By the 'seventies the differences had narrowed but within that range most of the larg

(1) Black Papers, A.McLachlan-Gladstone & Sargeantson, 18/12/18 copied on the fly-leaf of McLachlan-Black, 19/12/1845.

importing agents seem to have charged different rates to the constituents of different consigning agents. Normally, gross commissions varied from 2% including the selling brokerage of ½ (paid to the selling broker in this case by the consignee) to 2½% including brokerage and 2½% excluding brokerage but sometimes subject to a rebate to the seller (1). In the twelve instances in which, between 1876 and 1893, Jowitts acted as consignees for clips shipped through colonial consigning agents their gross commission fell between the 2 and 2½% levels.

These commissions were not, however, determined by negotiations directly between the importing agents and the seller. They were negotiated between the colonial exporting agents and the English importing agents and the gross commission settled upon was quoted to the owner of the wool by the former. From this the consignee rebated a commission to the colonial agent. The net commission received by the importing agent and the consigning agent's commission were therefore dependent on the relative bargaining strength of the two parties (into which entered the future advantages which each would derive from trading with the other, as well as their present relative positions). The dependent relation in which many growers stood to their consigning agents (a subject to be pursued below in section 2) and the nature and closeness of the links between the latter and the consignees created a situation in which some of the growers might easily have been exploited by discriminating tariffs. On the advice of the colonial agents, importers may

(1) W.A.Brodribb, Results of Inquiries and Correspondence in the year 1874, in regard to the Wool Trade, in London, the Continent of Europe and the Colonies (Melbourne, 1875), p.19.

have charged higher rates to some selected growers and then d divided the spoil. By its nature this is a most difficult proposition to investigate. It seems, however, that differential rates were applied by the English agents not to different clients of the same colonial agent but to all clients of different colonial agents.

As importing agents, Jowitts made individual arrangements with each of the twenty two Australian concerns from which they received consignments between 1876 and 1893. Table XX indicates how wide was the variety of conditions incorporated. Only twelve of the consignors, it might be noted were acting as agents for other colonists, the remainder being speculators who resold their wool in London and who arranged their own consignments. While Jowitts' return varied from ¾ to 1¾%, and the colonial agents' commissions from ¾ to 1½%, in only two of those twelve instances were unusually high commissions paid to both by the one seller. In other words, not only was there no discrimination between the clients of any one consigning agent, but it appears highly unlikely that there was

Table XX

Distribution of Rates Charged by R.Jowitt & Sons as Importing Agents, under agreements made between 1876 and 1893.

	Rates of Commission							Total Number
	¾%	1%	1¼%	1½%	1¾%	2%	2½%	
No seller	-	3	1	6	-	9	3	22
Agent		7	2	1	-	-	-	12
		10	3	6	1	-	-	22

any bulk exploitative discrimination against all the clients of one agent as compared with the clients of other agents.

One essential feature of these charges was this: that while the commissions received by importing and consigning agents varied greatly the gross commission from which they were taken did not vary greatly at all. Gross commissions were largely standardised between 2 and 2½%. When the importer took a larger commission than usual it was at the expense of the colonial agent, and vice versa. There were advantages, then, in the fact that growers were unable, like the manufacturers, to participate in a bilateral determination of the rates they were to be charged and that, instead, they were quoted a specific comprehensive rate by each colonial agent which they could either accept or decline.

Standardisation and stability, in fact, were very important in pricing the services of all agents employed in marketing a grower's clip. The composite rate charged by consigning and importing agents was virtually standardised; the London selling brokers all charged the same commission, and the colonial brokers did the same; the incidental charges made by selling brokers and consigning agents were similarly standardised.

In most cases this practice had some sort of organisational support. In the colonies the Chambers of Commerce represented the common meeting places and accepted authorities of the consigning agents and wool selling brokers. As part of a wider scheme they approved scales of charges which their members might legitimately make and acted to regulate

general relations between them, to settle disputes between them and to arbitrate on the propriety of their actions[1]. Commissions for paying freight, securing insurance cover, making advances against shipments of produce, selling wool in the colonies, the selling brokers' receiving charges and the allowance for tare and draft on wool sold locally were all governed in this fashion[2]. All the charges which a grower had to meet directly when selling or exporting his wool and which were levied in the colonies were covered by these regulations.

There was no formal organisation among the colonial wool selling brokers until 1890, but the influence of the Chambers of Commerce and the Stock and Station Agents' Associations[3], to which most belonged, helped to maintain uniformity in the rates charged in (but not between[4]) the main centres. Formal organisation was unnecessary and perhaps impossible until the local markets had become firmly established for the brokers' common interest in popularising the local

(1) The Melbourne Chamber of Commerce, for example, reprimanded a selling broker for improper conduct and exorbitant charges when, as consigning agent, he had salvaged consigned wool from a sunken vessel, scoured it and sold it at the grower's expense. See the Argus, 7/11/1860.
(2) Cf, the Melbourne Chamber of Commerce's commercial charges approved on the 30th October, 1856, in the Journal of Commerce of Victoria, 9/1/1858, and the comprehensive Australian list in E.Greville (ed.), The Official Directory and Year Book of Australia for 1884 (Sydney,1884).
(3) A report of a meeting of the Stock & Station Agents of Melbourne held on 29/6/1866 is preserved in the archives of Goldsbrough Mort & Co.Ltd. Attended by twelve agents, including representatives of the three main woolbroking houses, the meeting fixed the rates of commission which could be charged on the sale of stations and bonds of £250 each were deposited as guarantee that that scale would be adhered to.
(4) There was keen competition between selling brokers in Sydney and Melbourne, particularly for the trade of the Riverina district, in which the difference in rates between the two centres played an important part.

institutions overshadowed their individual desires for short term competitive gains. When the Wool Selling Brokers' Associations were formed the move was in response to a similar moves by the buyers who sought to alter the conditions on which the wool was sold (1). Once in existence the selling brokers' organisations in each selling centre had dual roles. On the one hand they became regulative trade associations through which the brokers negotiated with the buyers, which governed the rates charged and the conditions of sale and which, above all, maintained the auction form of sale (2). At the same time they served as a means of managing auction sales which were brought together in a central salesroom (3) and later, in conjunction with the growers' organisations, of broadly controlling the

(1) A manifesto issued by twenty main Melbourne wool buyers in October 1889, pledged the signatories "not to buy... any wools which may be offered next season 1890-1, by any of the selling brokers of Melbourne, so long as the present delivery charge remains one of the conditions of sale." The formation of the Victorian Wool Buyers' Association two years later followed directly from this manifesto. (Victorian Wool Buyers' Associatio Minute Book no.1., unbound ms. sheet prefacing the minutes. I am obliged to the chairman and committee of the Victorian and South Australian Wool Buyers' Association for permission to make use of their Minute Books from 1891 to 1914.)

(2) The committee of the Victorian Wool Buyers' Association were anxious to comply with repeated requests that Association members should buy only from members of the Selling Brokers' Association, that they should not buy in the country and that purchases by private treaty should be restricted to the winter months when no major auctions were held (e.g. Minutes, 26/1/190 and 31/10/1905).

(3) In Sydney, sales were centralised for a time after 1864 (Withers, op.cit., 25/10/1913); the arrangement of rostering the brokers' sales and similar problems was left to a special committee appointed by them: It proved impossible to maintain this system and centralisation was finally effected in 1892. The opening of central salerooms in Geelong and Melbourne in that same year largely resulted from the insistence of the buyers. (Victorian Wool Buyers' Association, Minutes, 4/11/1891, 24 and 25/11/1891, 26/11/1891, 30/1/1892, 11/2/1892, and 4/10/1892).

quantities offered for sale[1].

In England the colonial wool trade was regulated primarily by the New South Wales and Van Dieman's Land Association. This body was formed in 1836 to promote wool growing in those two colonies by assisting emigration and distributing information. Its membership gradually narrowed so that it consisted mainly of wool importers and importing agents and its direction was undertaken by a self-perpetuating committee drawn from the same groups which was originally appointed in 1846 (the date of the last general meeting before the Association was dissolved in 1871). A colonial desire to have direct representation in London to supervise the sale of wool, first expressed in 1869, led both the Sydney and Melbourne Chambers of Commerce to request a widening of the Association's constitution so that it could include colonial merchants and represent all their interests[2]. When it was in fact re-formed as the Colonial Wool Merchants' Association in 1871 none of the colonial bodies was informed of the intention and the only liberalisation in form lay in the admission of all wool importers and importing agents handling more than 1,000 bales a year[3].

Because the consignees formed the pivotal section of the trade in London, dealing directly with - hiring, in fact- the selling brokers and wool warehousemen, the Association on behalf of its members "took under its care the whole trade,

(1) This control resulted in a significant restriction of supplies only in the late 1920's and early 1930's when the market was subjected to unprecedented pressures.
(2) Sydney Morning Herald, 2/11/1869; Argus, 13/6/1870, 17/4/1872.
(3) Colonial Wool Merchants' Association, op.cit.p.1.

regulating the sales, warehouse charges and so on"[1]. Its control over the charges made by selling brokers and warehouseme n was admittedly imperfect. Rates were fixed by negotiation between the respective trade associations. In formal terms the broker's commission of 1% was set and enforced by the Selling Brokers' Association and sanctioned by the importers[2]. Similarly, even before the warehousemen openly agreed to charge standardised rates[3] and form an association to regulate them the New South Wales and Van Dieman's Land Association merely approved their charges after they had been formulated by the warehousemen in informal collusion. Nevertheless, however restricted the Association's role may have been in formal terms, in practice it held the superior barga ining position and was able, when it chose, to force concessions from the other two groups of agents in London. In 1865 the warehousemen were force to give up to the importers the proceeds of the wool left lying on the floor of the showrooms af ter the buyers had inspected the bales[4], and in 1870 and 1871 the ins istence of the

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(1) The Sales of Australian Wools in London.... p.62 .
(2) Ibid., pp.18 and 137.
(3) At a preliminary meeting of the Joint Committee of the London and East India Docks and the other wool warehousemen held on 1/10/1889 it was formally resolved that "between the warehousekeepers and the Joint Committee rates and charges should be the same in e very respect...../and/... that frequent meetings should take place.....to dis cuss any questions that may arise" (Ms. note attached to a scale of warehouse ch rges in the possession of Browne, Eagle & Co.)
(4) The Sales of Aus tralian Wools in London... p.58.

Association forced a reduction in both brokers' and warehouse charges (1). Moreover, in demarcation disputes with the brokers it preserved for the importers the monopoly of their importing function (2); and on behalf of the consignees it determined the conditions on which the wool might be treated for by the buyers (3). In both these fields no doubts could be entertained about the force of the Association's decisions.

On the other hand, it was not sufficiently representative to exercise effective regulation of the charges made by, and the relations between, the importing agents themselves. We have already seen that importers' commissions were not standardised. Their treatment of incidental expenses and returns (4) and the conditions under which they were prepared

(1) On the warehouses see the Argus, 14/4/1870 and the Colonial Wool Merchants' Association, op.cit., p.3. J.Hoare, woolbroker, announced in his circular of 20/1/1870 that "to meet the wishes of many of the large Colonial Importers...henceforth the commission for all wool entrusted to my care for sale at Public Auction will be one half per c ent". Attached to a copy of this circular held by Brow n, Eagle & Co. is the manuscript note that according to information given by H.Sc hwartze, a broker of rather more importance than Hoare, "There was no definite time when brokerage was altered from 1% to ½%, but was altered at different periods at Brokers ' option - but just prior to 1870 they made their charge universal to ½%". This does not agree with the brokers' evidence before the 1870 committee of enquiry (See The Sales of Australian Wools in London..., pp.18,131; Colonial Wool Merchants' Association op.cit., p.12; also a lette from Sir Daniel Cooper reprinted in the Argus, 13/5/1871 from th London Times, 16/3/1871). The note is of interest in indicating that though the brokers bowed to the wishes of the importers it was not ma de binding by their association.

(2) The Sales of Australian Wools in London..., p.147.

(3) Ibid., pp.62-3.

(4) The disposal of the proceeds of "sweepings" from the sales-room floors, of rebates on freight and insurance payments and occasional charges for entry documents, were among the issues on which importers' policies differed and which angered the colonists in 1869. See the Sydney Morning Herald, 3/11/1869.

to accept and finance consignments also often differed widely. Moreover, the colonial banks engaged in the consignment trade stood outside the formal organisation of the Association. In the early 'seventies their position was that of competing interlopers, and the commissions at which they advertised their willingness to operate undercut the established agents and were in fact, instrumental in forcing a reduction in those rates (1). Once they had become accepted as participants in the trade, however, their aggression faded and they tended to conform to the scales of charges made by the large English importers.

In fact, the control over the charges made by members which was exercised not only by the New South Wales and Van Dieman's Land Association and its successor but also by the Chambers of Commerce and other commercial organisations was largely nominal. As organisations they were either too limited in their membership or clothed with inadequate powers to set and maintain rates in their own right. They "sanctioned" charges which in practice formed a maximum, but not always a mini mum, level to which the agents adhered. Essentially their function was to formalise rates determined by price leaders.

It is significant that although importers' net commissions could vary quite widely the gross charge to the sellers did not vary greatly from importer to importer. In this case what was standardised was not the commission as such but the range within which variation was permissible. Lead ing importers differed in their own charges and were unwilling to

(1) See the Sydney Morning Herald, 3/11/1869, also W.A.Brodribb, The Recollections of an Australian Squatter (Sydney, n.d., /1881/ p.19; and Sir Daniel Cooper's letter, Argus, 13/5/1871.

bind themselves to a single rate. Their influence in the importers' associations, however, enabled them informally to impress on other importers the same range of variation as they themselves collectively encompassed.

Similarly, the Melbourne Chamber of Commerce did not decide on an arbitrary figure of 1½% as the commission appropriate to wool selling brokers in that city. It accepted and endorsed the current rate which was, in turn, set in more or less open collusion by Richard Goldsborough, J.H.Clough (later the London & Australian Agency Corporation) and Hastings Cunningham, and adhered to by the smaller brokers[1]. At the end of the century when all colonial selling brokers were members of their local associations this process may well have been obscured. There was by then no single outstanding broker, but rather four or five giants who shared the bulk of the trade between them. Proposed changes in the rates were discussed within the association and announcements made simultaneously by allbrokers. The only essential changes from the earlier days were the substitution of four or five for the original leader and his associates and the removal of the discussions from the dining room to more formal surroundings.

The formal organisation of the London selling brokers was similarly not an essential element in the maintainance of standardised rates. The associati n existed mainly for reasons of technical convenience, for selling from a central saleroom

(1) Even in the matter of supplementary charges and the conditions of sale the Melbourne Chamber of Commerce was forced to endorse allowances for tare and draft at the local auctions of which it did not approve. See the Argus, 11/7/1860.

made it necessary to have some mechanism to allocate the times at which each broker took the rostrum. It also treated with th New South Wales and Van Dieman's Land Association in the [illegible] bilateral monopolistic regulation of relations between the [illegible] brokers and importers, and governed the brokers' relations with the buyers. The brokers acted uniformly in their charges to importers and buyers and in the conditions on which they extend credit to them. These uniformities were designed to prevent unnecessary and damaging competition among them, and being protective they were restrictive. But they were in evidence before the formal organisation was es tablished, and may be seen from an early date, in the unanimity of the printed conditions o sale which prefaced eac h sales catalogue. Delivery of the wool was to be taken within a specified time and cash had to be paid before the warehouse would release it etc.[1]. As it happens they were of a limited value. No matter how formally the Association may have stated them, the more important regulations were surreptitiously evaded in practice - a clear indication that the Association and the brokers themselves were concerned only to eliminate excessive competition. The only ways they could increase their individual returns were by raising the average value of the produce they sold (and therefore their commission on it) or by increasing their turnover. The first could be achieved by improving their selling techniques or by

(1) Many of thes e catalogues from the first half of the last century are still in existence. Those the author inspected were held by Messrs.Hughes,Williams & Irwell and Messrs.Kreglinger & Fernau of London. Uniformity in the sales conditions, at least among the main brokers, dates from the early'forties.

influencing individual buyers to bid more freely by giving the advance information about favoured clips (1) or by waiving the conditions of sale by delivering before payment was due or accepting drafts as payment (2). The second depended on the extent to which a broker could influence more importers to patronise him, a process in which both personal relations and th provision of financial accommodation played a large role.

Throughout the greater part of the nineteenth century changes in the rates charged for selling and importing services occurred infrequently and only under considerable pressure. The commission which John Macarthur paid to William Young as consignee in 1819 was 2½% (3); in the mid-'seventies 2½% was stil considered a normal charge. For selling the woolMacarthur paid his broker 1%; that rate was changed for the first time in the early 'seventies (4). In 1863, Richard Goldsborough's charge to the growers for receiving wool for sale was ¼d. per lb. and for selling it 1½%, while for delivering it to the buyer he charged

(1) Cf. The Sales of Australian Wools in London..., p.48.
(2) See above, chapter 4, p.168. The relative ease with which buyers could find cre dit to conduct their purchasing rather contra dicts the thesis advanced by J.H.Clapham (The Woollen and Worsted Industries, p.94.) and others that because the condition of sale demanded cash payment only strong buyers were able to patronise the London sales .
(3) Cf. the a count sales reproduced in S.Macarthur Onslow, op. cit., opposite p.352 .
(4) The New South Wales and Van Diemanis Land Association's sanction for the 1% charge was given in 1838 ; See The Sales of Australian Wools in London..., p.137.

½d. per lb. also. In 1889 those rates were still unchanged[1]. The motives behind this stability varied. On the one hand, the commercial charges proper - the importers' and selling brokers' commissions - bore little relation to the volume of trade. The level at which they were set provided a profit whether a firm handled 500 or 50,000 bales. Secure in the power which a "truck like financial relationship with their principals gave them[2] an complacent in the knowledge that their smaller rivals were incapable of competing with them effectively, the price leaders saw no reason to alter their charges. On the other hand, the colonial selling brokers derived positive advantages from stability. The unvarying nature of their charges was rewarded with the accumulating goodwill of both buyers and sellers - a goodwill which, until the local sales had become established on a firm and popular basis in the 'eighties, was essential to their operation and expansion. Moreover, these commercial charges were not appreciably affected by exogenous changes in the agents' own costs. In addition to increasing much less rapidly than the volume of their business, their demand for labour and fixed capital resources was so small that changing wage rates etc. were

(1) Although there is insufficient evidence to construct a continuous list of charges between 1863 and 1889 the identical quotations in the four specific instances known, 1863, 1881, 1883, and 1889, strongly support this conception of a long-term stability. For these dates see Goldsborough-T.J.Gibson, 12/1/186 and the duplicate invoices made out to R.Hogarth (31/10/1881) and M.D.Synnot Bros. (24/10/1881), all of which are in the possession of Goldsborough Mort & Co.Ltd.; the Victorian Royal Commission on the Tariff, Report and Minutes of Evidence, Victorian Parliamentary Papers, 1883, vol.4, question 23,879; and the manuscript manifesto filed with the Victorian Wool Buyers' Association, Minutes already cited (p.183, n.1.)

(2) See below, section 2.

not reflected in their profits.

These costs did, however, bear a direct, apparent and important relation to the business of the warehousemen, for whom the expansion of the trade meant greater labour employment and the construction of new premises and for whom every change in wage rates held significance. Consequently, the warehouse rates changed far more frequently than commissions for importing and selling. Between 1867 and 1889 they were altered no less than nine times, as increased economy in handling and falling wages allowed, and as the threat of competitive price cutting by one of their number forced them to reduce, or increased labour costs to increase, them (1). By contrast, it required the organisation of the growers' discontent to change the rates charged by the importers and London selling brokers. During that agitation and its aftermath, the New South Wales and Van Dieman's Land Association forced both the selling brokers and warehousemen to reduce their charges and the action of the colonial banks forced the importers to make some concession in their own rates.

2. Finance and wool agency as joint services, and discriminato monopoly.

A grower's freedom to choose between competing consigning agents in the colonies was limited, in practice, by his obligations to one of them arising out of past and current

(1) The Millwall Dock Co. opened in the early 'seventies boasted warehouses of a superior design and announced its intention of undercutting the other warehousemen. For some years it remained a disturbing element and forced some competitive price reductions On the other hand, the reason chosen by the warehouses in 1889 t justify their open c ollusion was labour and wage trouble.

indebtedness. The provision of cred it was very frequently mad conditional upon the grower's willingne ss to use the lender's services as a consigning or selling agent in respect of his wool, and sometimes as a general mercantile agent in respect of his other interests. This feature of the trade, which was a product of the pattern of the colonies' commercial and financia development, became one of its essential characteristics and a cornerstone technique in the business tactics of wool consigning firms (1).

It originated in the fact that the merchants were forced, until as late as the 'forties and 'fifties, to provide the bulk of the day-to-day finance by which the growers operate This was partly due to the fact that banks rarely established branches outside the main cities until the 'fifties so that the growers did not have any banking facilities at hand. The main reason, however, is that quite apart from the location of banking businesses there was no group but the merchants to whom the growers could turn for financial assistance. The banks were generally disinclined to deal extensively direct with the pastoralists, and were unwilling to discount "settlers' bills" on the grounds that they were notoriously unpunctual in meeting their obligations (2). It was expected, partially in the belief that "the merchants are better acquainted with the resources of the settler than the Bank can possibly be" (3), that

(1)Essentially similar features may be found, of course, in many other trades, e.g. the export of tobacco and cotton from the Southern States of America in the eighteenth and nineteenth centuries.

(2)See S.J.Butlin, op.cit., pp.508-9 on the question of the growe growers' relations with the banks.

(3)G.R.Griffith, director of the Union Bank of Australia, giving evidence before the Select Committee on Monetary Confusion (Report and Minutes of Evidence. N.S.W. V&P., 1843)

the merchant class would afford the pastoralists the credit they needed and in return receive their own accommodation from the banks. This attitude forced the growers to seek directly from the suppliers whatever credit they needed to purchase nearly the whole range of their requirements. As nearly all the merchants carried stocks, or would import stocks, of most of these goods, there was a tendency for a grower to choose one as his main agent and thereby consolidate the debt respecting most of his purchases.

In return for this accommodation it is to be expected that at least a certain amount of informal pressure was, or could be, exerted on the grower to direct to that merchant the consignment of his clip[1]. This possibility assumed even more formidable proportions when financing of this nature required the grower to maintain a current account with the firm[2]. The only types of formal security the growers could offer until the 'forties were mortgages on real estate, personal notes and shipping documents respecting exported wool, and in practice their circumstances restricted most ofthem to the last two. Borrowing against a shipment of wool, however, was not a satisfactory answer to the problem of getting day-to-day credit. Personal notes were, therefore, the most common way of securing the debts if, indeed, they were secured at all. As the wool was the grower's main asset, the merchant's main form of protection

(1) The various Dalgety companies carried the process further, exerting pressure on the pastoral clients to patronise their mercantile departments.
(2) Current accounts with merchant firms were common up to the 'sixties at least. Neil Black, for example, operated them with Bell & Buchanan, S.G.Henty, Dalgety Borrodaile & Co., Young - husband & Co., as well as with the Union and Australasia Banks.

lay in keeping a hand on the disposal of the proceeds of the realisation of the clip and in being able, if necessary, to use them to offset the debits in his own books. This he could do b handling the consignment, a process which in effect put him in control of the shipping documents.

Legislation on preferable liens on wool and mortgages on stock, in the 'forties, provided the growers with legally acceptable security for loans which enabled them to anticipate shearing and organise their finances with greater confidence and flexibility. Superficially, borrowing against this type of instrument might be expected to diminish the importance of merchant financing, for the registration clauses reduced the element of risk and rendered the banks' reasons for avoiding settlers' accounts less convincing (1). In fact, however, following their long practice of discrimination, the banks were unwilling to accept liens directly from the growers. Though liens afforded a first class security, they still preferred "not to bring ourselves into direct contact with the security; we always have a person between us and the settler" (2). Just as in the past, when a grower did succeed in having a bill discounted it was only after he had bought the name of a second party to act as guarantor (3), so now liens were more readily considered if they were endorsed by one acceptable to the bank - that is, by a merchant. Consequently, while liens were

(1) Bank of Australasia, Letters to London, No.316, 6/11/1845 indicates that the Bank found the registration clauses "most beneficial".
(2) L.Duguid, in evidence before the Select Committee on Liens and Mortgages (Report and Evidence, N.S.W. V & P. 1845)
(3) S.Lyons, in evidence before the Select Committee on Monetary Confusion, op.cit.

reluctantly accepted by the banks, it was far more common to find that they were taken as security by merchants, who sought their own funds from the banks. They were taken as protection for credit granted prior to the shearing and for advances made against a consigned clip. Again the merchant could best protect his investment by overseeing the export and realisation of the wool on which his payment depended.

Irrespective of the other profits which the consignment business might be made to yield, this protection afforded a very convincing reason for a merchant to make past and current debts conditional upon being given the agency[1]. In this way many growers became tied to the services of the particular consignment agents.

The colonial wool selling brokers and the specialised

(1) Overdramatised, and not entirely just, summaries of the merchants' role and motives found their place in colonial fiction of the last century. The law of the sheeplands was handed on by a squatter to a "new chum" in these words: "You must have an agent. Bankers not yet being present in the flesh, a merchant, if he is a dealer in hob-nails and shoe-leather, answers quite as well. An institution through whose hands your wool and tallow and fat sheep may pass;the former finds its way to England, getting in return stores such as flour, sugar, tea and tobacco, and a keg for shearing and a stray cheque to view the lions in Sydney...If those on whom you confer your favours under the exigency of the money market debit your drafts on Sydney...then there needs be a debit to cover booking and other trifles which may bring the percentage to over 30 per cent. Why man, you'll learn to bear it like a squatter should...If driven to bay in fear of that overdraft, why man alive, shear twice a year. Never mind the law, logic or equity of the thing, but do it. All laws are liable to bend to circumstances. When your merchant gets hard up and needs to balance twice a year, as a cause, the effect being to double the percentage, wait for your revenge when the wheel of fortune turns, in a wet season..." (J.Mouat, The Rise of the Australian Wool Kings - A Romance of Port Phillip (London, 1892), pp.77-8. Himself a squatter in 1846 Mouat draws widely on his own experiences in this tale.)

consignment houses adopted the same measures to secure the adherence of their constituents, While the logic was the same the emphasis was rather on securing the agency than on taking additional security. Moreover, once the practice was established it was necessary for new entrants and agents in alternative channels of disposal to adopt it. By the end of the 'sixties at the latest, lenders on liens and stock mortgages, whether those instruments were re-discounted at the banks or not had taken upon themselves the legally enforcable right to oversee, if not actually to handle, the consignment or sale of the produce hypothecated to them (1).

Short term general finance of the nature described in the preceding paragraphs was , of course, separate in form and implications from the advances made on the shipment of wool. The latter was a formal recognition of the fact that an agent had handled the consignment; the importance of the former lay in the determination of through whom an as yet unshorn clip would be consigned.

The specialised consignment houses and colonal wool selling brokers also extended the concept of "promised produce"

(1) In 1865 the prospectus of the New Zealand Loan and Mercantile Agency Co.Ltd. indicated that it was proposed "to make advances on the growing clip of wool, secured by registered liens...the wool to be transmitted to London for sale by the company" (The Bankers' Magazine and Journal of the Money Market and Commercial Digest (London, monthly), Vol. XXV, p.658.). A letter from G. Walker, Inspector of the Bank of New South Wales, to the manager of the Bank's Melbourne branch, dated 18/6/1870 (in the possession of Goldsborough Mort & Co. Ltd.) and the law case invovling the London and Australian Agency Corporation Ltd. (reported in the Argus, 25/10/1872) also indicate the lenders' legal rights.

to cover the wool grown on stations mortgaged to them. Their ability to do this arose from the fact that the facilities for the provision of long term credit themselves, apart altogether from any considerations of prudence, forced the growers to accept the conditions which these firms attached to mortgage finance. The banks' stated policy was "to avoid locking up the capital of the company in any security from which we are not likely to derive quick returns"(1), and this determination was strengthened by the difficulty with which they realised properties to which they had fallen heir during the 'forties. In many cases, too, they were legally restrained from lending on the security of land which was the most suitable basis for long term finance. Restrictions of this type did not always weigh heavily with them, for short term instruments like wool liens and stock mortgages were in fact renewed from year to year to form what were in effect long term loans and against which mortgages were taken as collateral security. This was especially so in the 'seventies and 'eighties(2), when the scale of bank participation in pastoral finance increased very substantially(3).

(1) John Lamb, chairman of the Commercial Bank, in evidence before the Select Committee on Monetary Confusion.
(2) Cf. the evidence of W.McMurtrie before the Royal Commission on Banking Laws (Report and Minutes of Evidence, Victorian Parliamentary Papers, 1887, Vol.3, paper 65, particularly question 1234-7). He agreed that "fully three-quarters of the business of advances by the banks in this colony rests on freehold or landed security of some sort", but emphasised that it was "only collateral to other business" and presumed that banks "would not go into that business direct".
(3) The extent of the banks' interests in pastoral properties is revealed in the analysis of mortgage registrations in N.G.Butlin, "Company Ownership of N.S.W. Pastoral Stations, 1865-1900", Historical Studies of Australia and New Zealand, Vol.4, no.14 (May, 1950).

(This expansion reflected both their share of the capital imports from England and their greater complacency with the course of economic development.) Before the 'sixties at the earliest, however, their lending on mortgages was not extensive and the task of providing long term pastoral finance fell to other groups[1]. The merchants were among the first to participate, investing their own surpluses and acting as agents for local and English investors. Later, specialised pastoral finance houses, using English capital, and other wool marketing agents became involved to varying degrees.

It seems highly probable that merchants and other private mortgagees, and later the banks, frequently reserved th right to stipulate the channel by which the wool was disposed. Large scale pastoral financiers like Dalgety or Mort or the London & Australian Agency Corporation went further and expected, as a matter of course, that wool from stations under mortgage to them would be consigned to or through their houses. The potential conflict as between short and long term financiers inherent in this situation is obvious. It was partl to overcome that problem that the large specialised agencies sought to raise capital on the English market during and after the 'sixties, for with suitable financial backing they were abl to fulfill both functions and minimise friction. One consequence of this, however, was that many growers were bound to consigning agents or local wool selling brokers by the ties both of past and present short and long term debt in an

(1) Cf. S.J.Butlin, op.cit., pp.501-2 and 504-5 for an account of the mortgage market and the banks' place in it prior to 1851

association which, in realist terms, could be broken only by the transfer of the debt to a different firm with whom a similar bond was established.

The implications of this method of providing finance meant more than a practical restraint on the growers' freedom to change their consigning agents. In general, each colonial agent carried on his wool business with only one, or in rare instances two, of the English importing houses, and would not accept consignments addressed to others (1). To some extent thi was a normal feature of colonial commercial activity as such, i which conservatism born of habit and previous good relations tended to consolidate, and distance to preserve, the exclusiveness of initial contracts. To a greater degree it wa a product of the mechanism by which specifically export finance was provided. As long as the importing agents remained organised on a relatively small scale, as they did until the middle of the century, and possessed relatively limited capital resources from which to finance the trade, it was inevitable that the contacts which each of them was able to make should be restricted. Moreover, as they bore the risk of repudiation in the event of the bill drawn against the wool by the consigning agent exceeding the realisation, it was natural not only that they should have been cautious in dealing with unknown firms bu that the ties already linking them with colonial agents should have been strengthened and possibly formalised. Similarly, the colonial agents dependence on a regularly available source on

(1) Black Papers, Black-Gladstone, 26/12/1840, details his difficulty in securing an agent to consign his wool to Gladston & Sargeantson.

which to draw bills implied a close attention to maintaining existing connections.

Naturally, both the strength and formality of these links varied considerably. At one extreme stood the vast Dalgety network which carried consignments to the London firm from partnership branches in Melbourne and Geelong, in Tasmania New South Wales and South Australia. The Adelaide firm of Elder, Smith & Co. consigned to the firm established by its retired founder, A.L.Elder, specifically to act as the London agent for its extensive and varied interests. In other cases, English firms established interlocking partnerships with existing colonial concerns; P.W.Flower & Co. of London, for example, were connected with Flower, Salting & Co. of Sydney; and Parbury, Thacker & Co. with Lamb and Parbury. Others were connected by the emigration to the colonies of one of the famil a type which is illustrated by Donaldson, Lambert & Co. which received consignments from Donaldson & Co. of Sydney and Moreto Bay. Even in less formal, though regular, contacts such as tho existing between J.B.Were & Co. of Melbourne and F.Huth & Co., between James Henty and Buckley & Co., or between W.C.Botts and Ellice, Kinnear & Co., the strength and dependability of the financial arrangements were increased by the closeness of the personal and non-contractual relations between the London and colonial personnel.

This policy of exclusive trading connections was not, however, rigid or invariable. No formal or lasting agreement seems to have governed, for example, the consignments sent to Robert Jowitt & Sons by the Sydney firm of Mackintosh & Hirst,

and despite Neil Black's early pessimism he was able to find a agent to consign his wool to his Liverpool correspondents. In Sydney various agents in the mid-'forties gave a choice of consigning either to London or Liverpool[1]. Moreover, the mo specialised and highly capitalised firms which developed after the 'fifties and 'sixties were willing, in the case of importers, to receive shipments from a wide variety of consignors and in the case of exporters, to address them to a variety of consignees[2].

Nevertheless the practice was sufficiently general to introduce a significant area of restriction into the market for the importers' services. It meant, on the one hand, that a grower bound by debt to a consigning agent was committed also t the services of a specific importing agent. On the other hand,

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(1) See, for example, the advertisements of Buchanan & Co., Eccleston & Hurst and Gilchrist & Alexander in the Sydney Morning Herald, 1st, 6th and 9th January, 1845, respectively.
(2) The consignees to whom, in addition to their own London office, R. Goldsbrough & Co. shipped wool in 1882 included some of their main business rivals - Dalgety, DuCroz & Co., Young Ehlers & Co., and the Australian Mortgage, Land & Finance Co. - as well as smaller ones. The quantities sent to them were, of course, small; of the 4,000 bales against which advances were still outstanding on 30/9/1882, 2,000 were addressed to Goldsbrough's office, 700 to the five main rivals and the remainder to "Sundries". (R. Goldsbrough & Co., Balance Books, "Advances on Shipments", 30/9/1882.) Consignors could, and did, of course, occasionally change their importers. D. & W. Gibb, for example, proposed to ship to Jowitts instead of to Sanderson & Murray unless the latter followed their selling instructions more closely. (Jowitt Records, "Jobbing (erased) Order Book", p.63) In the unsettled period following the agitation of the early 'seventies various small importers endeavoured to attract new trade (cf. W.A. Brodribb, The Recollections of an Australian Squatter, pp.195-7). These incidents do not invalidate the general picture presented above

the automatic determination of an importing agent by the choice of a particular consigning agent confused the process by which an unfettered choice of the latter was made. This complication to the grower-consigning agent relationship raises the question of the extent to which the growers' choice was based on an appreciation of the consigning agents' own services and how far it was determined by the fact that each agent represented a given English agent. In other words, was the choice dictated by a consideration of the exporting agent's competitive position in the granting of advances, the facilities he provided for classing and packing the clip, the ease with which he could secure choice freight accommodation and the terms on which the business could be arranged ? Was it made irrespective of the identity of the consignee ? was that identity weighed against the relative merits of this and that consigning agent ? or was the agent chosen because he represented a particular importer ?

It appears that, when debt obligations did not dictate behaviour, the choice was made primarily on the basis of the services of the local agent. John Cotton, for example, selected Griffiths & Borrodaile and later Dalgety & Borrodaile as consignors partly because of their pre-eminence in the field and partly perhaps because of past business connections with the firm and personal relations with the partners, without any apparent consideration of the identity of the English agent (1).

(1)Billis & Kenyon, op.cit.,"The Cotton Letters", passim. This was in the 'forties, before Dalgety's London concern was established.

It is perhaps easy to underestimate the importance of personal friendship and recommendation in business affairs in early colonial days; the commercial equivalent of patronage, so potent a factor in political and administrative preferment, cemented many a contract which otherwise appears irrational. Even Neil Black, with a multiplicity of agents and merchants already actin for him, found employment for Dalgety & Borrodaile after Gladstone had written to him that Borrodaile was "a most highly respected gentleman and connected powerfully on this side of the water, so that if it should suit you or appear to our interest you may do business with him in the utmost confidence"(1). A more general explanation may, however, be sought in the growers' relative ignorance about the market in England for importers' services in which they were, theoretically, participating. It is likely that, despite the growers' voluminous correspondence and their thirst for conversation, the finer distinctions of the facilities offered and services rendered by the different English agents were largely unknown to them. Even when they wer known they were frequently ignored, for they were considered part and parcel of the process of selling and over that the growers felt they had no control.

Yet a further limitation of the growers' freedom to choose his agents arose when importing agents sought accommodation from wool selling brokers in London to meet bills of exchange and in return undertook to sell the produce through that firm. In practice this may not have been a significant

(1) Black Papers, Gladstone-Black, 26/10/1840.

restriction[1]. It illustrates, however, the way in which the provision of credit established at each stage of the market, a dependence on the next and how, when it was made conditional on handling the wool, it tended to rigidify the market organisatio The main danger inherent in brokers advancing to importers lay in the ambiguous position in which each party was placed. The brokers, selling produce in which they were financially interested, could be subject to conflicting pressures: to sell it at any price which would cover their advances; or to follow the mandate theoretically given by the growers and accept only its maximum realisable value. The importers were subject to a similar conflict of loyalties: to sell as soon as possible and extinguish their own debt with the broker; or to carry the wool and the debt, should auction bids fail below the growers' reserve prices.

Perhaps more important than this formal obligation to sell through a particular broker was the fact that, because growers rarely exercised their right to give specific directions about the disposal of their wool, importers tended, in any case, to utilise almost exclusively the services of a particular wool warehouseman and a particular selling broker. Again the choice of one agent involved the automatic choice of others.

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(1) A bitter critic of the importing agents said that "in some cases the wool reaches London, and is sold, before the drafts are paid; if not they get money readily from the brokers, with an understanding that they will sell the wool" (Brodribb, Results of Inquiries..., p.17.) The significant thing here is that in making the strongest case he could, he was forced to rely on the device of contrasting the occasions on which this happened with the implied infrequency of the "some cases" in which it did not.

A grower could, therefore, be deprived of, as well as cut himself off from, active participation in the market for many of the services which he utilised. From his point of vie this situation stemmed from his relationship with the colonial consigning agent. Loans were made dependent on the grant of the agency to conduct the consignment. Burdened with past deb the growers tended to be unable to change their consigning agents. There was, it is true, a slight movement between financiers but its importance was generally slight[1]. The only periods when this assumed any significance were when highly ca italised new entrants made a determined effort to capture part of the pastoral financing business - notably the banks in the 'seventies and 'eighties - or when the financial capacity of existing firms grew at grossly divergent rates, making some of them more willing and able to accept transfer business. The choice of a colonial agent involved also the automatic choice of importing agent and sometimes of warehouseman and selling broker also.

This was an obvious case of imperfect competition and one which could have been conducive to discriminatory exploitation. As we have indicated no advantage was taken of this opportunity. On the other hand, the standardisation and stability of the gross importers' commissions were at least partly derived from this situation. To the extent that these charges were maintained at unnecessarily high levels, a fact

(1) Superficial inspection of the detailed accounts of R. Goldsbrough & Co.'s debtors in the 'eighties suggests that very few large accounts were transferred to it from other financiers.

indicated by the reductions effected, under pressure, in the 'seventies, then those restrictions did mean that the growers as a whole were exploited. The corollary to this is equally important: that competition between agents was focussed on the financial field. While a core of clients fettered by debt could broadly be depended upon by each agent there was no incentive to attract new trade by price competition. Only when new competitors like the banks entered this field was price competition likely to acquire a new importance for a short time - as it did in the 'seventies when the rates were reduced in thi way.

3. Competition in the auction room.

We have been concerned in the preceding pages with the freedom of competition in the markets for the services of agents concerned with assembling and distributing wool. Those imperfections which existed affected the structure of the wool-growers' realisations. This they did, however, primarily by their influence on the growers' selling costs. Only to a minor extent did they increase the buying costs of consumers or distributors in such a way that the prices they were prepared to pay in the saleroom were reduced. There were, however, other imperfections which could affect price formation.

In the first place, market offerings did not always equal the supplies available in first hands and speculative stocks. The New South Wales and Van Dieman's Land Association, and later the Colonial Wool Merchants' Association, held back from the periodic London sales series (which were held only four or five times a year) all wool which had not arrived in

London a specified number of days before the opening sale. In the same way wool was offered, as far as possible, in the same order as the ships on which it arrived were docked in London[1]. These were simply wise, and on the whole fair, mechanical restrictions which facilitated the conduct of the sales. The significant restriction lay in the importers' practice of withdrawing some of their clients' wool from the sales if it appeared that the market would be glutted[2]. Although to set an exa mple committee members sometimes withdrew portions of their own individual holdings one of the unknown factors here i just how they determined which clips were to be held over. The colonial brokers' organisations also sometimes sought to bring forward only that quantity which they deemed the market capable of absorbing, although because of the much closer contact between grower and broker it occurred much less frequently than in England.

The effect of this was that sometimes average prices were slightly bolstered for a short time at the expense of increased warehouse and interest charges to some of the growers. In the saleroom, the price of each lot was determined by the buyers, subject only to the owners' reserve prices. Among the buyers themselves competition was not always as free or as full as the advocates of the auction system maintained.

While protection from and aggression against the selling brokers was historically the first and most frequent

(1) Colonial Wool Merchants' Association, op.cit., p.11.
(2) The Sales of Australian Wool in London... ,pp.12, 34, 66.

issue upon which the Victorian Wool Buyers' Association acted, at least of equal importance as a rationale of its existence was the underlying protection of buyer from buyer that it afforded. Among its early resolutions were proposals for reform in auctioneering procedures which would have enabled buyers to identify rival bidders and thus make clear to each his competitive position and minimise the danger of the price being forced up mala fide(1). Protection against dilettante buyers was sought in the attention paid, in Melbourne and Adelaide(2), to the amount in which raising bids might be made(3) The first rule passed by the Victorian association, the "last bidder" rule(4), sought to protect and encourage low bidding. It implied the expectation that growers' reserves would frequently be above the top bid and that lots would be bought in which the buyers were in reality prepared to pay more than they bid. To encourage low bidding and at the same time ensure that the top bidder (whose desire for the wool was signified by that attribute) should not be deprived unjustly of the benefit of hi

(1) It was resolved that "Loud bids have a most decided preference" (Minutes, 18/12/1896). (The story is still told of the buyer who had a standing arrangement with a broker that his willingness to top preceding bids was to be signalled by the position of his hat!) Auctioneers were to pause before the fall of the hammer and name the buyer in a close call (27/10/1891 26/11/1891, 12/12/1891, 10/10/1893).

(2) The South Australian Wool Buyers' Association was formed in 1892 and immediately affiliated with the Victorian association. The Minute Books from 27/1/1892 to 6/5/1921 are held by the present Victorian and South Australian Wool Buyers' Association.

(3) The maintenance of the ½d. raising bid was justified on this ground at an even later date. See A. Sinclair, A Clip of Wool from Shearing Shed to Ship (Sydney, n.d. 1914? , p.66. This work has considerable interest and value as a general survey of the formal rules of the market in the first decade of the twentieth century.

(4) Minutes, 12/10/1891.

restraint by someone topping his bid privately afterwards, he was granted, immediately after the sale, the sole right to trea for it within a given period. This definite, if tacit, agreement not to force prices up "needlessly" did not extend as far as formal rings or open collusion among the colonial buyers In London rings were occasionally formed, particularly among th smaller buyers who, by sharing the purchase afterwards were thereby able to secure wool offered in lots too large for their individual use. This practice probably had little effect on prices.

There were serious dangers, however, in any auction roo where the "last buyer" rule was applied. It provided an opportunity for two or more buyers acting in concert to claim wool at a lower price than possible otherwise. As a hypothetical example[1], suppose there were four buyers, A,B,C, a nd D of whom B and C were in secret accord, and suppose that three lots of four, fifty and sixty bales appeared consecutivel in the catalogue. Buyer B wants the fifty lot bale so he bids high enough to secure the first of the three lots - that of four bales. When the second lot is offered he remains silent; when no other bids are being made and A appears to have the cal B then claims the lot at A's price under the privilege of last buyer. Buyer C wants the third, sixty bale, lot and signals his desire to B. The latter, acting as before, secures the lot from D who appears to have the call and afterwards makes an

(1) This example is drawn entirely from the anonymous comment on the rule appearing in the Australian Insurance and Banking Record, Vol.10, p.655.

adjustment with C.

There was also another, less deliberate, way in which competition was reduced. Differences in function and purpose tended to create non-competing groups among the wool-buyers. This is most evident among the buyers at the colonial auctions in the last quarter of the century. The broadest distinction was between those buying brokers, dealers and local processors who bought only low qualities of wpol or purchased wool only below certain low prices, and those who sought quality. This received the trade's recognition and approval in the institutic known as "star" sales. Lots of three bales or less were marked in the sales catalogues with an asterisk or maltese cross (the star) and sold in special "star" salerooms. In broad terms the "star" lots consisted of the least attractive wools offered, although occasionally small parcels of very superior qualities were included. Wool from small holdings on which little attention was paid to breeding or to classing and preparing the clip for sale, and the very inferior wool from station clips formed the greater proportion of them, and they realised prices considerably lower than the bulk of the clip. In this context the main point about the separate "star" sales is that in the colonies they were held concurrently with the sale of the rest of the catalogue. Consequently, while some buyers were represented in both rooms, in general the "star" and main sales attracted buyers with different aims. In London the "star" sales were held after the main catalogue had been disposed of. They started therefore at seven or eight in the

[illegible] were avoided by the

evening and again were avoided by the majority of the buyers (1) The separation of the two sales was based on a very real distinction between two non-competing groups both of whom found some of their time wasted before the catalogues were divided in this fashion.

In the main saleroom many colonial buying brokers tended to concentrate on buying for the manufacturers and dealers of particular consuming countries, or for a particular branch of the wool textile industry. Those who bought primarily on American account confined their attention to the limited range of light greasy combing wools to which the tariff restricted them. Those buying for French manufacturers and dealers sought other varieties which suited the peculiarities of the French industry, while Belgian purchasers were interested in still another group of wools. Brokers specialising in executing orders for the worsted industry, or for a special section of it did not compete widely with those buying for the woollen industry or for other worsted sections. While their competition overlapped, local manufacturers and scourers, foreign manufacturers and processing representatives, English and French dealers all had relatively specialised demands. The same sort of divisions were undoubtedly also present in the London market but its extent was diminished by the fact that there were

(1) In London buyers were faced, in 1870, with catalogues of up to 6,000 bales stored in five or six different warehouses. They started inspecting them as soon as the light allowed them - eight or nine in the morning - and scarcely had time to finish before the sales commenced at four in the afternoon. It required a strong constitution, therefore, to stay for the "staff" sales. When buying firms did require representation in the "star" room the task could, of course, be delegated to a junior buyer to widen his experience and improve his technique in the saleroom.

fewer buying brokers and each, consequently, served a wider variety of clients.

The real dangers of collusion among the buyers lay in the possibility that overlapping sections of these groups might informally apportion, before the sale, wools in which they had a common interest. It is quite impossible to estimate the extent to which this happened. The only evidence we have to indicate that it existed at all, indeed, depends on an interpretation of a buyer's notations in his copies of some sales catalogues. The particular catalogues were used, in the saleroom, to record the prices and buyers of the lots offered for sale (1). In them were also recorded, before the sale, the buyer's coded price limits for many lots. Now it happens that in some cases those price limits exceeded the actual prices at which the wool was sold to other buyers - an indication that he may have refrained from bidding against them. In addition, a pencilled notation made before the sale occasionally records the name of the buyer who was the successful bidder.

The broad isolation of the groups from one another in the saleroom bidding was greatly facilitated by the development o wool classing and grading by the sellers. The fact that wools of the same quality were classed in different groups by different sorters and that one grade name could embrace a variety of qualities did not matter in this context (2). As long as the lots consisted of bales of even quality wool buyers could specialise, and purchase lots of 50 or more bales secure

(1) The catalogues, used in Melbourne between 1883/4 and 1900/1 by Thomas Beaumont & Son, are held by the Australian National University.
(2) See above, chapter 4, pp.137-138.

in the knowledge that they could, if necessary, be shared among their clients without waste. Consequently they encouraged the development of the art. At the same time, as the success of their specialisation depended partly on the accuracy and honesty of the sellers' classing, they guarded themselves carefully. One of the major preoccupations of the Victorian Wool Buyers' Association was the proportion of bales from clips of varying natures and sizes which they required the selling brokers to open for inspection. From large station clips they required only a small percentage in the belief that from a large flock the classer could hardly fail to arrange lots of even quality, while from small farmers clips they sometimes demanded a full showing (1). Each buyer came to know particular clips very well and could depend on the uniformity of the classing from year to year to guide him in his choice. The same characteristics could not be attached to wool bought by dealers, repacked and offered for sale again. For many years the buyers therefore sought to have these lots especially marked with the dealer's name so that they should not be misled

(1) The printed rules of the Victorian Wool Buyers' Association (inserted between the leaves of the MinutesBook for 1894 and presumably formulated in this form about this time) lay down, as one of the conditions on which its members were willing to d business, the following proportion of bales to be shown (Rule 7):

				For Station Clips				
Lots of	200	bales	and	over,	9%	say	18	bales.
"	75	"	"	"	15%	"	11	"
"	25	"	"	"	30%	"	7	"
"	5	"	"	"	60%	"	3	"
				For Spade-packed (i.e.farmers') Lots				
"	25	"	"	"	40%	"	10	"
"	15	"	"	"	60%	"	9	"
"	7	"	"	"	80%	"	5	"

by the mark of the original grower[1].

At least in the Melbourne market there was an extremel loose market-sharing type of arrangement which tended to keep approximately sta ble the relative sizes of the business handle by each buying firm. This may, to some extent, reflect both th nature and the power of the executive and committee of the buyers' association. Its composition was remarkably stable and during the first twenty two years of its existence the ten places on it were filled by only thirty two members. These members, moreover, were among the strongest in the market. Fro this committee emanated the suggestion, followed throughout the 'nineties, that saleroom seats should be allotted on the basis of the quantities bought by each firm at the previous season's auctions, due consideration being given to their seniority and standing[2]. Although the salerooms were designed to place each seat within the field of the auctioneer's vision, in fact those buyers seated in the centre just in front of the rostrum, caught his eye more readily than others when a close call had to be decided. This method of seat selection placed the largest and most powerful buyers in those positions. At the end of the 'nineties, as prosperity returned, some of the smaller buyers and more recent entrants to the trade began to rebel, although they had still achieved no success by 1914[3].

(1) See Victorian Wool Buyers' Association, Minutes, 22/12/1899, 19/2/1900, 13/10/1902, 21/11/1903, and 30/9/1907. See also the Sydney Morning Herald, 26/6/1907 for an account of the Sydney buyers' boycott of dealers' wool.
(2) Victorian Wool Buyers' Association, Minutes, 19/10/1897 contains the recommendation that the practice should be followed as in the coming, as in part, seasons.
(3) Ibid., 22/10/1897, 22/1/1904.

The overall influence of these practices on price levels was small. They slightly distorted the transmission of demand from the manufacturing mill to the saleroom and reduced infinitesimally the average prices realised at the auctions. On relatively rare occasions, when the last buyer rule was abused, for example, they may have meant an appreciable difference in the prices obtained for a few particular lots. It is doubtful whether price falls were averted when the English importers' committee or the colonial brokers witheld supplies from the saleroom. The trade as a whole knew the quantities of wool which had been received at the London docks and were able roughly to estimate the size of the current clip still to be sold. It knew, that is, when supplies were being witheld and it knew that they must come forward at a later stage. The expectation of those future supplies therefore influenced their bidding for current offerings.

Chapter 6

The Location of the Market: I. Centralisation in London.

Until late in the nineteenth century London constituted the central market for colonial wool. Most of the wool exported in 1850 was sent there direct on the growers' account. That portion of the clip which was not shipped in that fashion was forwarded by colonial speculative buyers operating in various colonial centres which became, in effect, intermediat collection points.

1. The origin of centralisation.

The explanation for that centralisation is not difficult to find. Given the fact that, in the early years of the trade, the intimate economic, social and political bonds between the colonies and the mother-country dictated that Britain was to be the consumer of colonial wools, this concentration of the supplies, and its location, were the produc of two fundamental facts.

Firstly, the English wool dealers were unable or unwilling to undertake the function of distributing the wool from a point in the colonies, and the consumers were unable to deal directly with the producers. Before 1828 there was, admittedly, no attraction in colonial transactions for the wool dealers. The trade was a limited one, with a mere handful of scattered producers serving an equally small number of manufacturers.(1) But even after 1828, when the quantities of colonial wool were expanding and when its utility in

(1) Cf. the difficulties which Macarthur had in convincing the manufacturers that he had a worthwhile product. S. Macarthur Onslow, op.cit., especially chapter 13.

English manufacturing had been widely recognised[1], the dealers were unwilling to assume the risks and inconvenience of assembling supplies from 12,000 miles away. The wool, therefore, had to be brought to them in England.

Secondly, the scattered mills which provided the early consumers were small, and the scale of their production and resources made it difficult for manufacturers to travel far or frequently to obtain their raw materials[2]. Though some of them employed agents to attend the English fairs and negotiate on-the-farm contracts with English wool growers to secure the supplies of home-grown wool they required, most of them used the services of the wool staplers who specialised in this task. Wool staplers were not interested in the imported colonial produce - which at first they were not qualified to judge, in any case - and the manufacturers were forced to conduct their selection and purchasing themselves. One central point of sale rather than a number of scattered points proved a convenience and provided dealers and manufacturers alike with the choice of the whole clip at a minimum of cost.

That London happened to be the point of centralisation was due to its position as the first port of England, to the supremacy of its financial institutions, to its central location in the British transport system and to its possession of institutions which could be adapted to the trade. For a time, in the 'forties and early 'fifties its monopoly was

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(1)This recognition was willingly given by manufacturers and dealers appearing before the Select Committee of the House of Lords on the Wool Trade,1828. Their evidence is indicative of a generally changed attitude to the colonial product.
(2)Cf. S.Macarthur Onslow, op.cit., chapter XIII

slightly infringed by the efforts of Liverpool merchants to establish sales of colonial wool on a comparable basis. Liverpool was also an important port on the colonial shipping runs and its merchants held a considerable interest in colonial trade and property. Colonial consigning agents, particularly those who were general import-export merchants, and who were therefore in contact with English firms represented in both cities, offered consignment facilities to both London and Liverpool in the 'forties and early 'fifties[1]. For a time there were even short-lived attempts to commence competing auction sales in Bristol and Leeds[2]. None of them, however, could provide the sales facilities equal to London.

2. The centralisation of growers' sales.

From the point of view of the trade as a whole London, then, was the central point right from the beginning. From the narrower point of view of the growers, London represented the place to which the market was re-located during the 'forties. Growers like Macarthur had always consigned direct to England. Most growers in the 'thirties, however, sold their clips in the colonies, and the risk of the consignment fell on the speculative purchasers. The abandonment of local selling and its replacement by consignments on growers' account meant, in

(1) Many examples could be selected from the Sydney newspapers. As early as 1835 Aspinall, Brown & Co. of London and Aspinall, Brown & Aspinall of Liverpool were offered as alternative consignees by Aspinall Brown & Co. of Sydney. In 1845 the colonial firms of Eccleston & Hirst, John Rostron and Gilchrist & Alexander all offered the two destinations. In 1854 Crawley & Smith were willing to consign either to Antony Gibbs & Co. of London or to Gibbs Bright & Co. in Liverpool.

(2) Roberts, J.R.A.H.S., Vol.XVII, p.365.

effect, that for the majority of growers the market was moved from Sydney and Melbourne to London or Liverpool.

Essentially this change in marketing form and the related change in the market place in the 'thirties and 'forties were changes in the incidence of marketing risks and in the provision of marketing finance.

The merchants in the colonies acted as wool purchasers and then they changed to consignment agents[1]. They surrendered their role as purchasers, and by implication their risk-bearing function, reluctantly. This is evidenced by their continued willingness, both at the time and after the new pattern was firmly established - even as late as the 'seventies indeed - to purchase wool as well as to provide consignment facilities. Further, even before consignment on growers' account became at all common, the merchants themselves consigned their purchases; consignment channels existed, that is to say, to which the merchants denied the growers access. That they were <u>forced</u> to admit them in the 'thirties and 'forties suggests four hypotheses.

Their unwillingness would have been an appropriate response to a fairly long period of rising prices. This would have induced both merchants and growers to covet the (negligible, and, by definition, physical) risks of selling in England. To some extent this does characterise the period, for British manufacturers were at last appreciating colonial wool and its quality was improving. A general trend of this nature, however, was less important to speculators than much shorter movements,

(1)See above, chapter 3, pp. 87-89, 101.

and the fall in wool prices during the 'forties means that these considerations cannot have provided adequate motivation for either growers or merchants[1]. There is little documentary evidence to support a second hypothesis: that, irrespective of price movements in England, colonial merchants discounted too heavily the risks they ran, and that the disparity between the colonial and English prices was consequently wide enough to encourage the growers to assume the risks themselves.

It is more likely that the willingness of one party and reluctance of the other may best be explained by two othersets of factors. On the one hand growers sought responsibility for the sale of their clips in England as an incident of their changed status during the period of pastoral squatting expansion. During the 'thirties and 'forties the sheep owners, as a class, acquired financial support in England which enabled them to evade some of the difficulties which formerly led them to seek a quick sale in the colonies. At the same time their financiers preferred the the wool to come to England at the growers' risk for they were then in a position to handle the receipts. They assumed that responsibility, that is, for reasons unconnected with price movements and price levels - in fact, without a clear appreciation of the risks inherent in it. On the other hand, merchant interest in wool buying was not wholly, or even mainly,

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(1) The development and popularity of colonial auction sales in the 'forties, which seems to contradict this thesis, were the product of the immediate distress among sheep owners and of a shortage of foreign exchange among the merchants, rather than of the lower prices realised as such.

based on speculation. Wool and wool bills provided an excellent means of obtaining foreign exchange.(1) This motive, too, was one which provided a driving force irrespective of price movement

It is suggested that changes in the financial structure of the pastoral industry - the creation of direct financial links between the growers and England - encouraged growers to participate directly in the marketing process. The fact is that the squatting movement of the 'thirties and 'forties was based on new, relatively large scale capitalist foundations and that it was essentially, particularly as it gained momentum, a movement of relatively wealthy immigrants - surely one of its most neglected aspects and one which has become submerged in romantic myth. The mania for sheep certainly produced the settler who started with nothing but the credit obtainable on his note of hand, but the gulf which had formerly separated the few Macarthurs from the many emancipists was blurred by a multiplication of the former. What is of significance in this context is not the set of circumstances which produced this transformation, but the way in which these capital resources were made available and the other facilities which that method incidentally afforded.

While the individual investor undoubtedly remained an important figure, an increasing number of pastoral ventures were financed in the form of partnerships of varying degrees of formality joining colonial investor-operators with British absentee investors. Raising capital in England, a by-product of the importance of the immigrant squatter, enabled some of the

(1)See above, chapter 3, pp. 98-9.

growers to draw bills on the English concerns. Discounted locally, these drafts afforded a means not only of transferring capital for long term investment but also for securing short term finance after shearing. Typical of this development are the arrangements made by Neil Black with his British partners. Neil Black & Co. was formed by four partners in Scotland in 1839. The funds were to be invested in pastoral activity initially for a period of five years and Black emigrated to Victoria to act as managing partner. The main accounts of the firm were kept in Liverpool by Gladstone & Sargeantson; proceeds from the sheep station were to be credited there; the British partners were to purchase many of the station requirements in England and forward them to Black, and to arrange and pay for the transport of Scots shepherds and other labourers[1]; and to provide funds for colonial transactions Black was authorised to draw bills on the Liverpool firm and discount them locally. As it was generally cheaper to realise the wool in England rather than to sell it locally and remit the proceeds, it was an easy step for the firm to associate the bills which Black drew with the wool exported from the station, and to make the occasion of the shipment an opportunity to complete the documents and to make the wool the security on which they were accepted. In practical terms, of

(1) Black Papers, "Messrs Neil Black & Co. in account current and interest account to 24/th December 1842 with Gladstone & Sargeantson" (covering period from 22/4/1839) debits the company for payments made by Gladstone and Sargeantson for hand flour mill, bulls, sheep and lambs, passage money, clothing etc., for ten men.

course, there was no question but that the drafts would be associated with the wool, but from the standpoint of the firm's internal arrangements there was no compelling necessity that they should. The essential point was that Black possessed English connections on whom he could draw.

Even where no formal partnerships or shared capital arrangements existed the new class of pastoral occupiers, coming in so many cases direct from Britain, were able to arrange simila facilities with friends and acquaintances in whose hands the conduct of their English affairs was placed and on whom discountable bills could be drawn on the shipment of wool. The merchants' monopoly of suitable English financial connections, based on their commercial relations, was broken. This meant that growers possessed a method by which they could, theoretically without explicit reference to their clips but generally on the security they offered, anticipate their realisations. The remittance delay was not avoided but the period could be covered by the techniques which this financial structure made possible.

These developments, that is to say, made the intervention of merchant buyers in the wool export process largely unnecessary, for one of the basic features of that system had been the transference of the financial burden of that period of delay from the growers to the merchants. At the same time, the pastoral expansion created conditions to which merchant marketing became increasingly inappropriate and unadaptable. The very magnitude of the quantities to be dealt with posed problems with which mercantile resources were incapable of

coping. Only a small proportion of the clip could be bought for exchange purposes as this involved an outlay which yielded no return for several months, and the colonial mercantile wealth was not inexhaustible. When they purchased as speculators pure and simple they were in a position to discount drafts against their shipments, but even this did not wholly overcome the problem. On the one hand the purchase of the entire clip would have involved discount accounts for each of the few merchants far in excess of the levels the banks would have accepted, for beyond a certain point the risk of over-valuation of the produce and failure to meet deficiencies increased rather than diminished On the other hand, the purchases involved cash payments (1) and the proceeds of the discounted bills did not, in many cases, quite equal these payments. The result was that on each shipment the merchants bore a proportion of the financial burden themselve This did not matter so long as their operations were on a relatively small scale, but to have purchased the whole clip would have drained off too large a proportion of the resources of merchants to whom wool was but one of many commercial ventures.

The re-entry of the merchants into the wool trade as consignment agents developed as a matter of convenience to the growers. The farther settlement spread from the main ports the more difficult it was for the growers themselves to attend to the completion of the shipping documents and the bills of exchange, and to the problems of finding freight accommodation for the wool

(1)Until the early 'forties payments for wool purchases and advances on consignments, were made in the form of bills and notes cash payments were then substituted. See the Black Papers, Black - Gladstone, 25/6/1845.

and to the other vexatious details of arranging the consignment.(1) Their surrender of these functions was conditional, however, on the receiving of an advance from the agent comparable with that which they themselves could secure by discounting their own drafi At the same time the consignment system fitted well the merchants desire to retain some control of the growers' means of meeting debt obligations incurred previously(2).

3. The rationale of centralisation in London.

It is possible to view this change in mercantile functions in a broader context. The success of any exporting system depends on the efficiency with which it can provide the credit by which it operates. Merchant purchasing declined becaus it was no longer able successfully to finance the export trade; it was replaced by the consignment system because through it that finance was made available. Individual exporters found sufficien credit because of the closeness of their contacts with the financier-consignees; it was adequate for the industry as a whole because the large number of small financiers to whom the growers and consigning agents had resort, initially at least, collectively possessed more resources and were able to accept greater quantitative risks than the small number of mercantile firms to

(1)Cf. Billis & Kenyon, op.cit., "The Cotton Letters" Nov. 1845 (p.252) for an account of the inconvenience to which arranging his own shipments put John Cotton.
(2) The temporal sequence of development has been deliberately distorted here to highlight the motivationof the change. Before 1830 wealthy pastoralists consigned on their own and their friends' account (Fitzpatrick, op.cit., p.85) and during the 'forties a wide variety of exporting techniques existed side by side; purchase and export by merchants and others; growers' direct export by consignment; consignment through merchants; wealthy growers and other agents. The analytical sequence presented in the text, however, seems the best way of representing the essential features of the change.

whom the colonial merchants turned.

It was primarily for this reason that London remained the central market until the 'seventies and 'eighties. The development of specialised importing agencies in England which had close ties with exporting agencies in the colonies served to strengthen the ease with which credit was given to the growers to cover the period between shearing and receipt of the realisations and to consigning agents to cover their advances to growers. None of the alternative possible forms of marketing or market location, on the other hand, offered an efficient formula for financing the period during which the wool was being transported from Australia to the place of consumption. Auction sales in the colonies could not expand to a significant size during the 'fifties and 'sixties because the manufacturing consumers, on whom such an expansion depended, were not able to finance import from a distant market. A scattered distribution system based on numerous auction sales in Europe could not readily reimburse the consigning agents or merchants[1] on whom transport would have depended because financial relations between those areas and the colonies were relatively undeveloped and a cumbersome intervention of the London money market would have been necessary[2]. In addition, the London sales organisation served the growers' interests well, at least until the endoof the 'sixties, and the

(1) In fact this type of system did develop after the 'seventies when Continental dealers offered wool bought in the colonies at regional auction sales in their own countries. Its success depended on a changed set of conditions. See below, chapter 7, pp.274-8, 290-3.

(2) See above, chapter 4, p.170; also the arrangements proposed by Gustave Ebell, a Berlin wool broker, for the receipt of consignments from Australia in the 'seventies. (Brodribb, Results of Enquiries, p.8-10).

concentration on London accorded well with the prevailing sentiments - of "Home", of empire and of imperial relations.

4. Stresses in the centralised srtucture.

The centralisation of the market in London and the operation of the consignment system were, from the practical point of view of the growers, interdependent. There was no value to be derived from consigning to any other potential market for only in London was there that concentration of buyers specialised in colonial wools, and there was no large scale practical means o getting the wool to London except by consignment at growers' risk Their attitudes to the London market and the consignment system were, therefore, very closely interwoven.

Up to the 'sixties the growers were, on the whole, fairly satisfied with the location of the market and with the services of those who marketed their wool there. It was assumed by lay theorists (1) that the fact that marketing agents were paid in the form of commissions strengthened the bonds which linked them with their principals and assured a community of interests throughout the whole of the selling process. Determined in this fashion, the commissions encouraged all of them to seek the highest realisations. In fact the groups which were concerned with supplying the primary market were defined from one another not only by the functions they performed but also by the attitudes engendered by those functions, by their relations to the whole market process and by their relation to the provision of the short term credit by which the trade operated. In normal times the relations between the various groups of agents, and between them

(1) Cf. James McBain's letter in the Argus, 4/11/1869.

and their principals were based on and reflected a necessary and obvious identity or intersection of interests. Submerged in thi pedestrian harmony, however, were dissonances which more faithfully represented the fundamental interests and attitudes o each group. These were most vividly revealed at the end of the 'sixties when the growers and others became dissatisfied with th London sales organisation and with the consignment system.

The fate of the colonial agitation between 1869 and 187! the shifting alliances and the divergent interests of the pastoralists and their agents, form an object study in the implications of the centralisation in London and provide an insight into the change in market institutions which occurred in the last quarter of the century[1].

The movement for reform was started by meetings of colonial merchants (as growers, financiers and commission agents) colonial bankers and growers late in 1869. The two themes which ran through their considerations were the weight with which the marketing costs of the consignment fell on the fast depreciating returns from wool, and the suspicion that the fall in prices and realisations was in some way due to the organisation and practice of the London selling trade. So great was colonial ignorance of the conduct of the sales, however, that committees were appointed by the meetings in Sydney, Melbourne and, considerably later, in Adelaide, to investigate the actual conditions in London and recommend ways in which they could be reformed. Early in 1870 their representatives met jointly in London and

(1) The discussion in the following pages is based on Barnard, Economic Record, Vol.XXXI, p.275. I am indebted to the Editor for permission to incorporate this material here.

delegated their investigatory function to a subcommittee (1).

The personnel of the joint committees was a mixed one, including growers resident in London, importing agents and wool merchants. The subcommittee of enquiry, on the other hand, carried a disproportionately heavy weighting of importing agents. That merely indicated a harmony of interests between the growers, the consigning agents, the speculators and the financiers in the colonies and the importing agents and financiers in England. It arose from their common interest in the level of realisations on which their livlihood, commission incomes and interest receipts were based and was apparently underlined by James Blackwood's declaration in Melbourne that his firm (Dalgety's) realised the need for reform and sympathised with the colonial discontent.

The first rift in the community of interests appeared when F.G.Dalgety accepted the task of convening the Melbourne representation in London.His reluctance to accept, unmodified, his colonial mandate was obvious and he sought reassurance that a public enquiry was really desired; he suggested that it could serve no useful purpose as the action of the New South Wales and Van Dieman's Land Association in increasing the number of sales series in the year and (unsuccessfully) asking for reductions in warehousing charges and selling brokerage had already secured the colonists' objects. That this was the view of the importers as a

(1)It was this subcommittee whose proceedings were reported in The Sales of Australian Wools in London, and however unsatisfactory its enquiry may have been to the colonists at the time, the evidence it took now forms a major source of information on the trade.

whole was made clear by the complacent, almost perfunctory fashion in which the enquiry conducted by the subcommittee they dominated was carried on. Though a show of thoroughness and enthusiasm was made, and the opinions of all sections of the tra sought on specific proposed reforms, no attempt was made to come to grips with the heart of the colonial demands. The colonists had certainly expressed a desire to have investigated the technicalities of the trade - questions relating to warehouse procedure and the weight of wool sold, the brokers' policy of lotting bales for sale and the frequency with which sales were held - but they also evinced a certain uneasiness about the whol organisation of the London sales. The President of the Melbourne Chamber of Commerce doubted "whether it was desirable that London should have a monopoly of the wool sales" while others considered that the sales organisation was outdated and incapable of handling the trade[1]. This fundamental question, and those relating to the charges made by the importing agents and the selling brokers, received scant attention at the enquiry which was concerned almost exclusively with peripheral issues. The conclusions of the committee reflect its prejudices and preoccupations; "Your Committee are unanimously of the opinion that the mode in which wool sales have for very many years past been conducted, has been that most conducive to the best interests of the flock-owners; and that those interests could only be imperilled or sacrificed by disturbing that policy or substitutin an experimental one"[2].

(1)See the report of the Melbourne meeting which established its London committee, Argus, 3/11/1869.
(2)The Sales of Australian Wools in London..., P.IV.

This divergence of opinion between colonists and importing agents was of a fundamental nature. The fact that the importing merchants had been asked to reduce their own incomes; that they were the ones ultimately responsible for the sale of the wool and that criticism of selling organisation reflected on their management of their own and the growers' business; and that they had grown complacent in their long undisturbed control of the trade - these were facts of deep personal but slight structural significance. Their distance from Australia and the infrequency of any deep or prolonged contact with colonial constituents contrasted sharply with their proximity to other members of the London trade. Primarily they were men with businesses in London, not the representatives of colonial client and their interests and sympathies were centred in London. They held, moreover, a vested interest in the existing organisation of the sales, an organisation to which their whole business was attuned and on which their commercial existence depended. Nothing could be more widely separated than the colonists' unsettled desire for <u>any</u> more efficient method of disposal and the importers' willingness to seek higher nett realisations <u>within</u> the existing market framework.

The views of the colonial mercantile community were expressed more soberly and with greater caution than those of the growers. Nevertheless the Melbourne Chamber of Commerce frankly disbelieved much of the evidence on which the committees based their report, disparaging "judgments and opinions

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[which] must ... take a very strong bias or colour from the situation in which the witnesses find themselves placed". It spoke of a "highly artifical organisation ... perhaps now unparalleled in the methods of disposing of any other commodity" and characterised the control of the sales organisation as a monopoly one[1]. It seriously considered tentative enquiries received from England and France about the possibilities of direct trade by-passing the London sale-rooms[2] and later, in 1872, was led to wonder "whether this artifical arrangement is not in some respects unsuited to modern circumstances and whether the violent oscillations of the price of wool during the last two years ... may not be reasonably attributed to some extent to the artificial restriction of the sale of the article[3]". It attacked, in other words, the periodicity of the sales series which was one of the basic features of the London organisation and approved, by implication, of the colonial practice of selling right throughout the period wool arrived in port. Less restrained growers, who were becoming increasingly articulate and availing themselves of the polemical opportunities of the newspaper columns showed even less enthusiasm for the London organisation. They adopted the theme of Sir Daniel Cooper's dissenting report on the London enquiry: "...if you rely on aid from this [English] side, you may expect much but will obtain little"[4]. It was they who fanned the embers of the agitation once again in 1871 by presenting a memorial of repeated and new demands to the Colonial Wool Merchants' Association.

(1) Argus, 13/6/1870
(2) Ibid, 17/8/1870
(3) Ibid, 27/3/1872
(4) Sydney Morning Herald, 23/5/1870

Once again the difference in attitudes stemmed from a fundamental variance of interests. The merchants had taken the initial steps in the agitation in 1869 - the public meetings in Sydney were convened by a group of merchants, and in Melbourne by the Chamber of Commerce. Their participation in marketing problems arose out of their interests as consigning agents in commission earnings and therefore in the gross realisations at t sales, from their interest as growers and speculators in the net realisations, and from their interest as financiers in the ability of the growers to meet their long term debt obligations. Consequently, the aspects of the London market which, above all, attracted their attention were those dealing with the number of sales series, with warehousing, taring and weighing, with lotting and sales techniques - with those which would, that is, either lower the narrowly selling costs or stimulate bidding at the auctions. Part of their interest in market reform evaporated wit the recovery of wool prices in the 1871-2 season. But even at the height of their indignation, in 1870, it was evident that a strong, even if temporary, antagonism to the conduct and nature of the London sales was repressed, if not rendered impotent, by some deeper overriding committment to it.

In fact, the colonial mercantile community <u>was</u> committed to the London market system however much verbal dissatisfaction it expressed and however longing the glances cast at possible alternatives. As speculators buying at the local auctions their contacts lay almost exclusively with the London auction sales; as consigning agents thier contacts lay in England and their very existence depended on the continuance of some method of

overseas disposal at the growers' risk; and as intermediaries in the provision of short term export credit they realised that only from or through London could that credit be secured.

To the extent of that fundamental dependence on London the merchant consigning agents shared a common interest with the specialised consignment houses possessing English offices. It is significant, however, that the leadership of the agitation rested in the hands of the former. The specialised houses were, of course, even more deeply committed to the existing system than the merchants, and after the initial appearance of Blackwood at the 1869 meeting in Melbourne they played no further part. Their businesses were directed, even more explicitly than those of the merchants, to London. The banks, similarly, held aloof from the movement. As branches of English concerns which acted as importing agents they could not deviate from the attitudes promulgated for them in England. Not only their attitude to this question but all their relations with other consigning agents and other groups interested in marketing were determined by the attitudes taken in London or by what was appropriate to the interests and conditions of the London office.

The growers continued their movement for market reform until the middle years of the decade. They included among their activities, however, exploratory moves of a more revolutionary nature. W.A.Brodribb, as president of the Pastoral Chamber of the Riverina, made extensive enquiries about the possibility of consigning wool direct to auction sales in Germany and Belgium.(1)

(1)Brodribb, Results of Enquiries, pp. 8-14, 21, 27-30, 43.

Belgian interests in Australia made use of the opportunity to try and popularise the Antwerp sales[1] and in the colonies themselves some pastoral figures like Brodribb were making trials of the local auction organisations.

The predominant interest of the colonial selling brokers the group which stood to gain most from the agitation, was partly hidden during these years. Their basic object was to increase local sales at the expense of consignments to England and they were therefore fundamentally opposed to the interests of the importing agents and the colonial consignment agents. Their use of the opportunities which the agitation provided for them was, however, limited to intermittent propaganda avoiding explicit reference to the causes of the dispute and drawing attention only to the general advantages of colonial auctions. Towards the end of the process of the interchange of memorials and reports which constituted the agitation they did, it is true, attempt to attract growers by abolishing one of the conditions of sale to whose inclusion in London exception had been taken. The reactions of the colonial buyers to this move provides an interesting commentary on their attitude to marketing questions. They had joined in the initial movement for reform in London because, as speculators, they were disturbed by the low prices and the heavy marketing costs. When, however, the same approach was applied to the local market in which they appeared as buyers they were not content with a compensating variation in the conditions of sale which reduced their costs but struck a year later to have the reform revoked.

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(1)Renard Bros. & Co., op.cit.,

The reasons for the timidity of the local selling brokers during this period is to be found in their still divided nature. Though their historic role lay in developing the local auctions, at this time the largest of them - T.S.Mort in Sydney, R.Goldsbrough, the London and Australian Agency Corporation Ltd. and Hastings Cunningham Ltd. in Melbourne - still consigned a large quantity of wool to England for their constituents, and to this extent their interests were those of other consigning agents. They did not depend wholly on the London market, but the local sales organisation was still insufficiently developed for them to display the antagonism to London which their broking role logically demanded.

The picture which emerged during these five or six years then, is of widespread dissatisfaction with the London sales organisation, with London as a centralised market, and even with the consignment system. The degree of the dissatisfaction varied with the nature and basic interests of the market participants. The particular divergences of attitudes revealed were partly those which were appropriate to a time of stress. At other periods they were submerged or distorted by other tensions and preoccupations. The differences between the views of the growers and most of their marketing agents, it is submitted however, were ones which remained real and significant even after harmony between them had apparently been restored.

5. The pre-conditions of market re-location.

The essential lesson of the market reform movement, however, was that no matter how anxious growers may have been to change the marketing methods and alter the channels of wool

disposal they were powerless to break out of the framework of the London sales based on growers consignments. In the process of making the centralisation effective and efficient groups had emerged which had a vested interest in maintaining the existing institutions. These groups, moreover, held all the power.

The major specialised consignment and importing agencies were also the main sources of both short term export credit and long term developmental credit for the pastoral industry. Being dependent on them the growers were obliged broadly to follow their dictates in the disposal of the wool which secured the credits. These concerns were centred on London. Their finance and the wool trade provided a two-way complementary flow, into the orbit of which the merchant consigning houses were pulled even against their will. The banks which engaged in the consignment business did so partly to acquire foreign exchange more readily and, being generally English concerns, with their financial roots in England, they too centred their trade on London and even today continue as the largest importing agents.

The development of the colonial auctions and their ability to compete effectively with London - the possibility of a re-location of the market back to the colonies - was dependent therefore on a basic readjustment of the financial structure of the wool trade. It was necessary that institutions should develop which could finance, within the colonial framework, the growers' demand for pre-sale credit; that credit, that is to say, had to be divorced from the necessity of drawing discountable bills on foreign importing agents. At the same time changes in financial organisation, communications and the structure of

textile firms were essential to enable buyers to operate in the colonies with efficiency, a minimum of risk, and the ability to finance the transport of the wool from the colonies to the consuming countries. Without these changes and without the development of efficient and firmly established selling institutions in the colonies, no amount of willingness would have sufficed to bring producers and consumers together on a large scale within Australia.

These changes and that re-location did occur in the last quarter of the century, and to their discussion the following chapter is devoted.

Chapter 7.

The Location of the Market: II. Re-Location in Australia.

Regular, frequent, auction sales of wool began in Sydney and Melbourne in the late 'forties and early 'fifties; by the end of the century half the Australian clip was sold through auctions held in Sydney, Melbourne, Geelong, Adelaide and Hobart. By the beginning of the first world war nearly 70% of the output - 1,703,744 bales - was disposed of in those cities and in Brisbane, Perth, Launceston and Albury, and the various selling centres had been welded into a homogeneous national market controlled, in respect of broad policy questions affecting supply and demand, by a federal administration.

The process of re-location began effectively in the 'seventies. At that time sales in the two Victorian selling centres began a long and pronounced upward movement which is illustrated in Table XXI. The development did not consist, however, of quantitative growth alone. In the half century before the end of the 'sixties the local markets had depended on the activities of speculative intermediaries who formed a link between the growers who sold there and the London sale rooms where the wool textile industries sought their raw materials. In the early 'seventies conditions were established which enabled consumers and dealers to buy more easily and efficiently in the colonies. This both changed the nature of the Australian markets from that of collection points on the route to London to primary markets, though small at first, in their own right and permitted the growth which followed.

Table XXI.

(1)

Estimated Sales at the wool Auctions in Sydney, Melbourne & Geelong, 1859/60 - 1899/1900.

Selling Season.	Sydney.	Melbourne & Geelong	Total
	Bales	Bales	Bales
1859/60	5,827	23,521	29,348
1860/1	6,454	27,719	34,173
1861/2	8,512	22,893	31,405
1862/3	9,760	45,178	54,938
1863/4	10,925	38,754	49,679
1864/5	10,983	29,539	40,522
1865/6	12,475	43,349	55,824
1866/7	13,311	47,534	60,845
1867/8	12,001	40,460	52,461
1868/9	14,084	36,850	54,534
1869/70	25,140	62,844	87,984
1870/1	18,153	50,696	68,849
1871/2	21,887	85,599	107,486
1872/3	17,816	69,287	87,103
1873/4	15,850	75,754	91,604
1874/5	18,740	107,885	126,625
1875/6	23,973	94,241	118,214
1876/7	34,292	114,265	148,557
1877/8	32,897	123,533	156,430
1878/9	32,374	111,212	143,586

(continued on p. 242)

(1) Sources: The figures for Sydney, 1859/60 - 1883/4 and Melbourne and Geelong, 1859/60-1882/3 have been calculated directly from the catalogues of each sale which were published in the Argus and Sydney Morning Herald after the sale or from the brokers' weekly or monthly reports published in the same newspapers.

Sydney, 1884/5 - 1893/4, H.W. Wright, "Wool Industry" (p.68) in F. Hutchinson (ed.),'New South Wales: The Mother Colony of the Australias' (Sydney, 1896) pp 66-75.

Sydney 1894/5 - 1899/00, W. & P. 1900-01, p. 591.

Melbourne and Geelong, 1883/4 - 1890/1, Withers, op.cit., 15/10/1913. Melbourne and Geelong 1891/2 - 1893/4, T.A.Coghlan A Statistical Account of the Seven Colonies of Australasia 1895/6 (Sydney 1896), p 149. Melbourne and Geelong 1894/5 1899/00, Bureau of Agricultural Economics, op. cit., Table 35.

The "selling season" covers the period October to March for Melbourne and Geelong up to 1882/3, and for Sydney up to

(continued on p. 242)

Table XXI (continued)

Selling Season	Sydney Sales	Melbourne & Geelong Sales	Total Sales
1879/80	51,905	133,879	185,784
1880/1	48,094	130,187	178,281
1881/2	79,091	169,788	248,879
1882/3	79,413	171,645	251,058
1883/4	115,875	189,227	305,102
1884/5	112,906	197,934	310,840
1885/6	116,576	178,153	294,729
1886/7	128,734	180,045	308,779
1887/8	162,511	188,050	350,561
1888/9	209,252	214,875	424,127
1889/90	234,419	279,360	513,779
1890/1	251,314	247,508	498,822
1891/2	278,304	292,694	570,998
1892/3	362,365	310,828	673,193
1893/4	401,830	305,715	707,545
1894/5	425,135	328,142	853,277
1895/6	415,538	315,543	731,081
1896/7	401,048	310,385	711,433
1897/8	445,808	286,625	732,423
1898/9	447,517	280,397	727,614
1899/00	399,893	312,465	712,358

1883/4. Thereafter it is taken to extend only to February. The justification for this lies in the improved transport facilities which, by the 'eighties meant that except in exceptional circumstances the bulk of the clip had been received in the main ports by the end of that month.

"Sales" as far as possible refer only to wool sold in the auction room and exclude wool bought in at the sale under owners' bid and later disposed of by private treaty.

Figures of the quantities of wool offered at the sales are not presented here because the duplication involved in the re-offer of wools bought in or withdrawn from previous sales inflates them beyond correction and renders them useless either as a measure of the growers' willingness to try the local markets or as an indication of the efficiency of the sales in clearing the supply coming to the markets.

In the 'eighties the Sydney sales expanded rapidly, and by the end of the decade, rivalled those in Victoria. By the end of the 'eighties these three selling centres were offering a serious competitive threat to London. They had attained a certain maturity by the 'nineties and that decade could be characterised as one in which they were consolidated, in which the detailed institutions and regulations appropriate to that status were evolved in their day-to-day operation, and in which growth continued as a snow-balling effect induced by the weight of numbers and the power of competition and imitation among raw wool consumers.

In terms of the preceding discussion three sets of changes were necessary to bring about this movement of the markets. Selling institutions of known integrity, efficiency and reliability had to grow to provide the basic setting for the market. It was essential that the form of sale be by auction, for Australia's wool country was too wide to permit extensive on-farm treaties even by resident distributive firms and the growers had become too accustomed to the London auction system to entrust their clips to city agents for regular private sale. Embryonic auction organisations were created by Stubbs and Lyons in Sydney and by Hind and the Bakewells in Melbourne, but through the 'fifties and 'sixties private sales retained their significance. It remained for Thomas Sutcliffe Mort and Richard Goldsbrough to popularise the auction system in the colonies, and to give the lead in providing facilities

attracting both sellers and buyers. Developments had also to take place to encourage and enable the growers to dispose of their clips in the colonies rather than consign them to England. The growth in the number of small flock-owners played a part in this for it was generally the small producer who most desired to make a quick sale. Once the spread between colonial and London prices began to narrow as a result of the activity in Australia of manufacturers and dealers, the saving in marketing costs which could be made by selling locally began to exert an increasing attraction for all classes of wool growers, particularly as prices were declining. Full advantage of this could not be taken, however, until the industry was substantially free of financial pressure to market in London. This freedom was acquired in two ways: firstly the selling brokers in the colonies sought incorporation in England and tapped the English capital market for funds with which to provide the finance; and secondly specialised pastoral finance houses, domiciled in England and engaged in the consignment trade, shifted their location and became colonial selling brokers. The third set of changes necessary was that which would encourage and enable consumers and dealers to incur the risks and inconveniences attendant on obtaining their supplies from the other side of the world. Obstacles were swept aside by the completion of the telegraphic link between the colonies and Europe in 1872 and the introduction of faster transport on shorter ocean routes, while the changing structure of the European textile industries made it easier for manufacturers and

dealers to finance the transactions and carriage. The actual shift in their buying habits was to some extent part of a general movement of world wool markets back to the producing countries and partly the result of specific competitive pressures which led groups of consumers of Australian wools to seek cheaper sources of supply than London.

1. The development of selling institutions.

The two figures who dominated the process of creating the selling apparatus in the colonies were Richard Goldsbrough and Thomas Mort. Mort had commenced his colonial career in the services of Aspinall, Browne & Co in Sydney in 1838(1), and in 1843 he established his own auctioneering concern. Until well into the 'fifties the sale of stock and station properties was the most important of his activities and the main source of his income(2), but he also included wool in his sales of col ial produce. Though the wool sales were a minor feature on which Mort did not concentrate, they were nevertheless a profitable one and when his property manager and later his auctioneer left his firm they both founded concerns in which wool selling for a time played an important part(3). Goldsbrou

(1) Goddard, op. cit., p.97.
(2) Cf. Withers, op. cit., 18/10/1913. This concentration is unmistakably reflected in the nature of Mort's advertisements in the Sydney Morning Herald.
(3) Richardson, the property manager, became a partner in Richardson & Wrench the well known real estate agents of today which at the time combined real estate and wool sale O.B. Ebsworth, the auctioneer, started his own wool brokin firm in addition to a woollen mill.

on the other hand, had been brought up in the wool trade. His apprenticeship in Bradford and his later business life in Shipley had equipped him well and suitably for the wool sorting and packing business he opened in Melbourne in 1848. When he purchased the business of J. & R. Bakewell in 1850 he acquired with it the status of the leading wool broker in Victoria. He reorganised the sales mechanism he had inherited and placed the auctions on a regular periodical basis, but otherwise tended to neglect that phase of his business. The extent of his disinterest may be gauged from the fact that growers were permitted to supply their own auctioneer or to make use of the one who conducted the sales for Goldsbrough on a commission.(1) In fact, like Mort, Goldsbrough was far more interested in pastoral property than in wool. He turned first to selling it and then, in partnership with E. Row and G. Kirk commenced investing speculatively in Riverina properties(2).

For both Goldsbrough and Mort wool selling remained an essentially subordinate activity during the early 'fifties, overshadowed by stock and property dealings, wool packing, sorting and consigning to England on growers' account,

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(1) The announcement of his acquisition of Bakewell's business included the notice that "Richard Goldsbrough has also made arrangements for Weekly Sales by Auction of Wool, Tallow, Sheepskins etc. Vendors selecting their own auctioneers:" (my italics) (Argus, 9/12/1850). The same arrangement was still in operation in 1855.

(2) H.M. Franklyn, op.cit., p. 197; also an unsigned article in the Melbourne Truth, 2/5/1914.

and merely implying recognition of a local trade in wool. It was in the closing years of the fifties that Goldsbrough and Mort changed the emphasis of their businesses and consciously endeavoured to compete with the consignment trade. In that process they laid the foundations of an independent local market, the conception of which far transcended the immediate requirements of sellers and buyers.

The motives of these brokers differed somewhat. The basic assumption in any explanation of Goldsbrough's re-orientation must be that the only reasons which could have led him to concentrate on local selling were the prospects of a greater net revenue from each bale handled and/or a greater volume of trade than he could expect as a mere packer and consignment agent. The selling commission of 1½% to which he was entitled by appropriating, in the view of the growers, the role of the English selling broker may or may not have exceeded the commission of 3/4 - 1% received as a consigning agent.(1) As a warehouseman, he gained the new profits derived from the delivery and receiving charges. The crucial fact was that the absolute volume of consignment business available to him was more limited than his potential share of the possible

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(1) Goldsbrough's selling commission was based, of course, on realizations in Melbourne; the consigning agent's on realizations in London. The former would exceed the latter as long as London prices were less than 50% higher than those ruling in Melbourne.

volume of local sales.

The sources which he could tap for either of these trades - consignment or local sale - were circumscribed by the semi-permanent obligations of many growers to financial institutions, merchant financiers and consigning agents. From the remainder Goldsbrough could expand his consignment business by improving the quality of his packing and classing services, by making more attractive advances on shipments and by more vigourous advertising and canvassing. The efficacy of these tactics was limited. The really valuable weapon was the power to offer medium and long term accommodation which would induce growers to change their allegiance from other agents. He could not do this. Merchants accumulated considerable profits from the lucrative import trade, particularly in the early 'fifties, which they frequently invested in pastoral activity - directly by occupation or indirectly in mortgages - and they afforded, moreover, a convenient channel through which absentee investments might be made. With this Goldsbrough could not compete. His object in coming to Victoria was to restore a somewhat tattered fortune[1] and his capital resources in the fifties were relatively small.

Goldsbrough's business did prosper and expand. But the purchase of the Bakewells' concern seems to have been financed, partly at least, from the profits of his packing and sorting establishment; and the further expansion into the Row and Kirk

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(1) Joyce, Homestead History, p. 112. Goldsbrough had been caught in George Hudson's railway speculations in Yorkshire.

partnership had a similar foundation. There can be no doubt that they were profitable ventures - that the degree of vertical integration represented in pastoral occupation, stock and station salesmen, wool sorters packers consignors and brokers was of particular value during the gold rush period - and that his English training and contacts helped make this success possible. Each of these expansions, and the admission of Hugh Parker into the broking partnership in 1857, represented an expansion of Goldsbrough's capital resources and borrowing power. However, increasing personal affluence and this expanded capital were insufficient to form a basis for successful competition with agencies like Dalgety & Blackwood.

In that situation, the only method by which Goldsbrough or any similarly placed shipper could expand significantly was by encouraging a local market where that specific disadvantage weighed less[1]. Irrespective of any special concessions which Goldsbrough may have made, a local market could attract untied and sometimes even tied growers, and he would share with the other brokers their custom.

These considerations do not apply with quite the same force to T.S. Mort, whose resources were far more substantial at that time. His interests, however, were far more widely

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(1) Other small consigning firms like Henry Clowes (Joyce, p.177) were in the same position, but although the dissatisfaction with the merchant consigning agents was growing during the 'fifties (ibid., pp. 177 and 181-2), these small concerns had little chance of success against the more firmly established merchants. While many of them dropped out of existence Goldsbrough went ahead to become an Australian institution primarily, it is argued here, because of this diversion of his business into the local sale of the produce.

spread than Goldsbrough's and his ventures in railway promotion, gold-mining and engineering dispersed capital which, if concentrated in the wool business, could have secured him a pre-eminent position in the consignment trade. Both Mort and Goldsbrough were men of vision and imagination, who appreciated the potential long term importance of the institutions they were founding; both of them were also attracted to the development of local selling as a source of immediate profit which did not make great calls on capital. Mort, perhaps, rose further above the immediate pecuniary question (as he did in many other ventures [1]) and was able to view the development of the market as an end in itself. With Goldsbrough, on the other hand, the vision grew out of an innovatory solution to the problem of business survival and expansion. To attribute varying motives to them does not, however, diminish the fundamental importance which attaches to the policies they followed and the effects of their efforts in the establishment of the colonial auction centres.

In the 'forties Lyons and Stubbs in Sydney and Hind and the Bakewells in Melbourne instituted orderly local sales. In the 'fifties Goldsbrough and Mort regularised the auction techniques which had been developed. During the 'fifties and 'sixties local selling institutions continued to develop and grow partly in response to the deliberate efforts of those two and partly because of the growth of the trade as such.

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(1) Cf. the account of his life and activities in J. Jervis, "Thomas Sutcliffe Mort", Journal of the Royal Australian Historical Society, Vol. XXIV.

Other broking firms, seizing upon the crumbs dropped by the consigning agents and the two main local sellers, added a competitive drive to the determination of the local practices[1] The dates of their establishment reflect the growth and extension of the local auction system. In the 'fifties and early 'sixties the main Melbourne and Geelong houses were formed; in the late 'sixties and 'seventies, those of Sydney[2]. The effective beginnings of the Adelaide market, despite the small offerings of auctioneering concerns like Parr & Luxmoore and E.R. Priestly & Co. from the 'sixties, were dated only from 1878 when Elder Smith & Co., assumed broking functions[3] and similarly the activities of brokers like Fenwick & Co. in Brisbane were considered, even as late as 1888, to be of

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(1) In Sydney, for example, Durham & Irwin (Irwin & Turner from 1865) became selling brokers in December 1859; O.B. Ebsworth an Richardson & Wrench in November, 1860; W. Dean in November 1861 J. Brewster (Brewster & Trebeck from 1868) in October 1862; and James Graham in February 1865. Their lack of success is indicated by the variety of other occupations which they also needed to follow.

(2) Harrison & Jones commenced selling in October 1866; James Devlin in November 1867 (these concerns were amalgamated a Harrison, Jones & Devlin in 1871); Maiden, Hill & Clark and John Bridges, commenced in the mid-'seventies. These were the main sellers in Sydney besides Mort before the national concerns like the Australasian Mortgage & Agency Co. Ltd., opened branche there in the 'eighties.

(3) This is the opinion expressed by R.B. Skamp (op. cit., p.13 at the end of the 'eighties. Green, Parr & Luxmoore (later Parr & Luxmoore), general auctioneers, held occasional sales of wool from at least 1860; E.R. Priestly & Co. commenced selling in the 'seventies. The scale of these activities was very small - the annual average reported sales by auction between 1863/4 and 1868/9 did not exceed 820 bales. (Even by the end of the centur Adelaide sales were still comparatively small and accounted for less than 10% of the total sales in the four main centres (annual average of Adelaide sales 1895/6 - 1899/00, 65,426 bales of total four centres, 735,136 bales - Bureau of Agricultural Economics, op. cit., Table 35). In 1882 Elder's Wool and Produc Co. Ltd., was formed to take over the auction portion of the wool and produce business of the parent company (Price and Hammond, op. cit., p.37).

insufficient size to warrant notice. Attempts were made to establish auction sales elsewhere - unsuccessfully in Newcastle in the 'eighties [1] and successfully in Hobart and Albury near the end of the century.

These brokers in their day-to-day business, in consultation with one another and with the buyers, evolved an efficient system of selling. The magnitude of their task is revealed by the fact that the elementary convenience of printed rather than manuscript catalogues of the sales was not provided in Sydney until the 'sixties.[2] Warehouse accommodation was the first problem to demand their attention. Wool selling required premises in which the produce could be displayed to the buyers with advantage. Led by Goldsbrough and Mort they constructed warehouses expressly for the purpose, improving them as business demanded successive extensions of space. Storage floors were well ventilated, display space was made available on the top floors where an abundance of windows allowed the natural light, and careful stowage the space, which buyers needed for a thorough examination of the wool, and modern equipment ensured speedy and economical handling.[3] At the

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(1) Cf. Withers, op.cit., 14/11/1913; Parliamentary Standing Committee on Public Works, Report on Railway from Narrabri to Walgett with a branch to Collarendabri, with Minutes of Evidence, N.S.W. V&P., 1900 Vol. 5, Question 2445.
(2) Cf. Austin, opt cit., July 1906.
(3) "The most imposing structures of the metropolis of the Southern Hemisphere are the banks and wool warehouses" (Franklyn op. cit., p223).

same time, as the volume of the offerings increased it became obvious that the English practice of making every bale available for that examination before the sale was both wasteful and unnecessary. A system was worked out, becoming more complex as the trade widened, which involved showing only a portion of each lot[1] - an immense saving in time and labour and one which enabled buyers to value more wool in a given time. The conditions on which the sales were made were chrystallised, over a period of twenty years or so, by a similar interplay of the interests of brokers and buyers. Conditions imposed by the brokers and accepted, by default, by the buyers were challenged when their application revealed conflict. In 1860, for example, the implications of sale on the basis of an examination of a proportion of the lot became apparent and were resolved by the brokers' formal assumption of the responsibility of guaranteeing that the shown bales were fair samples[2]; and in the same year the Melbourne Chamber of Commerce adjudicated a dispute between the brokers and buyers respecting the allowance to be made for the weight of the wool-pack (the "tare") when accounts were being rendered[3]. Rostering the days on which the brokers sold was a necessary and convenient move, but one whose main significance lay in the welding of a number of sellers into one organised

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(1) See above, Chapter 5. p214 n.1.
(2) Argus, 5/7/1860, 17/7/1860, and 28/7/1860. The dispute arose out of the appeal case Clough & others v. Campbell, reported in the first of those issues, and then proceeded by negotiation between the brokers and buyers.
(3) Argus, 11/7/1860

market. It is most readily seen, and achieved its highest expression, in the use by the brokers of a central saleroom. The use of a central saleroom itself was a feature of the trade which owed its origin to the wool buyers. In 1863 the Sydney buyers insisted that all sales should be held on the one day in the one place. Lyons Building in George Street served as temporary accommodation until in 1864 the sales were moved to the Sydney Exchange[1] where they remained until the 'eighties. Centralisation then broke down and was not restored until 1892. Similarly, in Melbourne the demands of the buyers in the 'ninetie led to the use of the Wool Exchange as a centralised selling point[2]

In these ways the selling institutions developed from the rudimentary auctions in which wool was offered along with other pastoral produce[3] under primitive conditions and on a variety of terms, to the highly formalised efficient and centralised series of auctions of the 'seventies and 'eighties.

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(1) See the "Wool Circulars", Sydney Morning Herald, 21/11/1863, 12/12/1863, 21/12/1863, and 26/11/1864; also Withers, op. cit. 25/10/1913.

(2) See above p 183, n. 3.

(3) In the forties wool and other pastoral produce was offered by some auctioneers at the same sale as imported goods. Even in the 'eighties many of the smaller brokers followed the practice of allotting to each day of the week the sale of a different kind. Fenwick & Co. of Brisbane, e.g. advertised (E.Greville [ed.], Official Directory.... 1884, end page) the following order of sales : Monday - Land, Tuesday - Country Sales, Wednesday - Hides, Tallow, Sheepskins etc., Thursday - Fat Stock Market, Friday - Wool and Leather, Saturday - Horses, Milch Cattle.

2. The Growers and the Local Sales.

The evolution of the selling institutions was as dependent on the growth of the volume of transactions as that was on them. The hard core of sellers around whom the brokers built their early organisation were the small growers. It was they to whom the basic attractions of local sales - quick realisation and speedy finalisation of accounts - appealed most in financial terms, and it was their clips, small, often mixed, generally of indifferent quality and poorly classed, on which the heavy fixed marketing costs in England weighed most heavily. In Victoria in particular, in the 'sixties and 'seventies, this class of producers expanded rapidly, partly under the stimulus the selection laws afforded small scale pastoral production but mainly as a product of the expansion of agriculture and the growing metropolitan demand for meat. From this change in the structure of pastoral production the Melbourne market drew most of its support during the twenty years before 1875. Even in 1886 it was estimated that most of Melbourne's meat and half the wool sold there was produced by small flock owners(1). Over 3,600 growers patronised the Melbourne and Geelong sales in 1883(2). The wool they sold amounted to less than one fifth of the total output of N.S.W. and Victoria; yet those growers were equal to just over one half the number of pastoralists

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(1) Bonwick, op.cit., p.270, quoting from the Official Handbook of the Exhibition held in Melbourne in 1886.

(2) The estimate is that of the Australasian Trade Review 19/12/1883.

in those two Colonies in the censal year 1881.[1] Similar changes in New South Wales in the 'eighties and 'nineties, and to a smaller degree in South Australia in the 'seventies and 'eighties were broadly associated with the expansion of local auctions there.

In terms of the suggested motivation for Goldsbrough's deliberate decision to develop the local auction system there were two basic problems facing him. One was to augment that hard core of small growers by wooing others to whom the sales did not appeal so immediately and so strongly. The second was to attract to Melbourne the representatives of overseas dealers and consumers without whose presence the possibility of local expansion was limited. To an important extent those two phases were interacting and interdependent. The station clips, large, well classed and of fairly even quality attracted far greater buyer attention and claimed higher prices than an equal quantity of farmers' wool. They were the bait needed to lure the foreign buyers. Those same station clips, however, were attracted to the local market only by the higher prices that consumers' and dealers' representatives could afford to pay.

We will defer until the next section consideration of the shift in buying policy. Here our interest is directed to

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(1) In N.S.W. in 1881 the number of squatters was 3,179; in Victoria, including dairy farmers, there were 3466.

other methods by which brokers attempted to increase the sales by attracting the large clips.

In the first place, they had at their disposal a number of conventional techniques. One of the more obvious of these was personal contact and canvassing. As an investor in Riverina properties Goldsbrough, for example, not only acquired an adequate knowledge of station valuation and an ability to assess the potentialities of grazing lands, but also formed connections which served as a foundation for the large business he later did in Riverina wools. Hastings Cunningham utilised the friendships of his wool producing days as a basis for his business, while the promotors of the Australasian Agency and Banking Corporation, a consigning agency formed in 1877, pledged themselves to forward through the concern wool worth £200,000 from their own stations(1). Brokers like Goldsbrough also maintained a small but efficient staff of canvassers and travellers(2) whose personal interest in clients' problems contrasted so vividly with the distance of the English brokers and the less personal attention of some of the consigning houses(3).

(1) A.I.B.R. , 1,160.
(2) In the half-year ended 31/3/1884, R. Goldsbrough & Co. devoted £1,491 out of total expenses of £28,540 to travellers' allowances (R. Goldsbrough & Co., Balance Books ,"Analysis of Profit and Loss".)
(3) Not all of the English brokers and the consigning agents were open to such a charge, but the brokers' disabilities, in particular, were heavy. It was written of old clients of a local broker that they "prefer to see and correspond with particular partners in the management of their business" (J.S. Horsfall, To the Shareholders of Goldsbrough, Mort & Co. Ltd.,: A Reply to Andrew Rowan [Melbourne, 1889], pp10-11).

So close were the links established in this fashion, in fact, that when a director of Goldsbrough Mort & Co., who had undertaken much of the outside work left the firm and became colonial consultant to one of its competitors he took considerable business with him(1).

The necessity to adopt policies and techniques which would yield the maximum short run profits consistent with the long term policy of expanding the market as a whole is most evident in the regulation of brokers' charges. Their revenue was derived from three sources. The selling commission was a percentage charge made to the growers on the realised value of their wool and had its origin, as far as the brokers were concerned, in the general usages of the wool and auctioneering trades. The receiving charge, also levied on the growers, was a flat cash rate per pound of wool entering the brokers' stores which covered warehousing and handling and underlines the Australian brokers' novel assumption of that function. (While the selling charge varied with the ability of the wool industry to pay it, the receiving charges provided an offsetting gamble and an element of stability in brokers' revenue when wool prices were low.) The only charge made to the buyers was one for delivery, again a flat rate per pound irrespective of the value of wool.

Between the 'sixties and the 'eighties these charges displayed a remarkable stability, derived both from the trade's

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(1) A.I.B.R., Vol. 16, p. 327.

adherence to price leaders' rates and a general appreciation of the value of stability as such. They could not afford to discourage potential sellers and buyers by fluctuating rates. The major variation they did introduce in the conditions of sale emphasised the value and soundness of a principle of conservatism and stability. In 1872 the leading Melbourne brokers, in an attempt to turn the growers' agitation in their advantage, abolished a traditional allowance which the buyers had enjoyed - the draft of one pound in every hundredweight bought(1). Within a month they were forced to concede a compensating variation and allow them the actual weight of each wool-pack instead of the traditional tare of ten pounds per bale(2). In the following season the buyers successfully struck against the disallowance of the one pound draft(3) objecting to being made, in effect, a lever for the abolition of the practice in London(4).

Apart from their stability, a feature which they shared with London, the Melbourne charges tended to attract growers by the considerable saving in marketing costs which they represented. Not only were the growers relieved of the

(1) The Argus contained the following public notice on 29/8/1872
"We the undersigned woolbrokers of the city of Melbourne in compliance with a written request made by leading wool growers have, after consultation with the shippers, decided to OMIT from our catalogues the DRAFT of 1 lb. per cwt. If special instructions are given to sell with draft they will be attended to."
The signatories are R. Goldsbrough & Co., Hastings Cunningham & Co., and the London & Australian Agency Corporation Ltd.
(2) Public notice in the Argus, 25/9/1872.
(3) Argus, 4/11/1873.
(4) See Jules Renard's letter in the Argus, 12/11/1873.

transport costs to England (which the buyers in the colonies, of course, allowed for in their bidding) but the selling commission of 1½% and the receiving charge of ⅛d. per pound compared favourably with the English selling brokers' commission of 1% (reduced to ½% in 1871), the importing agents' commission of between 1 and 2%, the consolidated warehouse charges of 4-6/- per bale and the loss of many weeks' interest on the value of the clip. The difference in selling costs, excluding all those associated with transport, could amount, in fact, to as much as 0.355 d. per pound on wool realising 12d. per pound in London[1].

Successful to an extent though they may have been, these tactics and charges were nevertheless capable of influencing only a small minority of the growers. Any large expansion of the market depended, paradoxically, on the brokers' ability to provide long term finance - the very thing which their inability to do, it is suggested, motivated their concentration on local sales in the first place.

In considering the development of the local markets the role of long term finance must be considered on two separate levels. At the level of the individual brokers it appeared

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(1) See below, chapter 8, for a discussion of marketing costs. The example in the text assumes that wool fetching 12d. in London will realise only 8d. in the colonies which is rather extreme. But even if the calculation were based on wool which realised 12d. in both London and Melbourne the difference still amounts to up to 0.295d. per pound.

partly as a competitive weapon which could be used to retain or extend a broker's clientele. In that process the number of growers patronising the local sales rather than the London market might or might not be increased. At the level of the trade as a whole, the development of the local market was incapable of full realisation until both long and short term credit could be offered on a large scale without direct reference either by the local trade or the growers themselves, to sources outside Australia which would draw the produce to England. This was achieved in two ways. The local brokers expanded their financial resources, which enabled them to replace the financiers of some of those growers who formerly consigned to London; and the more important of the English importing houses transferred the centre of their financial operations from Britain to the colonies. The two levels were related through the particular forms of financial support which the brokers adopted for their individual operations. Individually following certain policies determined by the conditions of their own businesses, they developed collectively a set of institutions which forced the English houses to join them.

The conditional nature of long term finance has already been discussed,(1) but it is necessary to emphasise the restrictions on those conditions. Growers were tied to their financiers; they were tied to a particular method or place of marketing only if the financier restricted his services in that way. In the case of colonial brokers this meant that they were

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(1) See above, chapter 5, pp.197-202 .

unable to depend on finance as a method of compelling growers to patronise their sales, as they were unable to dispense immediately with their function as consigning agents. All that could be essayed was an unofficial pressure to induce debtors to try the sales in Melbourne or Sydney first, with an undertaking to provide consignment facilities if the reserve price was not met. (This option had an impressive influence on many medium-sized non-obligated growers who occasionally experimented with different marketing methods(1)). This pressure may, indeed, have been quite extensive. It certainly impressed contemporary observers in that way, for one of the reasons to which Melbourne's supremacy as a port of shipment and as a colonial market was most frequently attributed was its financial position and the fact that it "controlled" so many pastoral stations(2). Moreover, even if the pressure was slight and not always successful the amount of wool made available under finance agreements was large, and the scope for the pressure correspondingly high. Against station mortgages(3) stock mortgages, a few freehold mortgages,

(1) Cf. Royal Commission on Railway Construction, Report and Minutes of Evidence, question 758, South Australian Parliamentary Papers, 1875, vol. 2, paper 22.

(2) Cf. Select Committee on the Riverina Districts, Report and Minutes of Evidence, Proceedings of the Victorian Legislative Assembly 1862/3, Vol 2, paper D42, especially questions 181, 760-1 961; Select Committee on the River Murray Traffic, Report and Minutes of Evidence, South Australian Parliamentary Papers 1870/1, Vol.3, paper 86, questions 26,272,398, 1246, 1285; Commission on Railway Construction, Report and Minutes of Evidence, South Australian Parliamentary Papers 1875, Vol.2, paper 22, questions 656, 1193,1217. Royal Commission on the Utilisation of the River Murray Waters; Progress Report and Minutes of Evidence, South Australian Parliamentary Papers 1890, Vol. 3, paper 34, question 364

(3) Station morgages, so-called, were really stock mortgages together with an undertaking to transfer the pastoral lease and the tenant's right to improvements.

promissory notes and wool liens (all of which were, if necessary, renewed from year to year to form long term instruments) Goldsbrough was explicitly offered, in 1866, some 7,000 bales as part security and possibly half that number again which were not formally recorded[1].

Nevertheless, the restrictions that have been noted meant that their interest in finance as a competitive weapon was limited firstly to protecting and retaining those clients who would otherwise have been forced to seek their accommodation, and take their trade, elsewhere; and secondly, to ensuring that they were able, if approached by a grower who had previously consigned, to take over the financing which had formerly been provided for him somewhere along the consignment chain. These were limited interests, and in fact most brokers' attention was focussed on the interest revenue rather than the wool business that borrowing carried with it. Interest was a fickle, but frequently a very profitable, source of revenue. Even in 1870 and 1871, when R. Goldsbrough & Co. were paying out vast sums in interest on "dead" capital, their net interest receipts amounted to 20% of the gross revenue, and in 1869 it had been 30%[2]. Realistically enough, it was only in depressed periods

(1) R. Goldsbrough & Co., Unbound Correspondence with the Bank of New South Wales.
(2) Ibid. The information has been pieced together from various letters.

that the wool business gained under mortgages assumed any major importance in the brokers' eyes[1].

The process whereby Richard Goldsbrough attained the position of being able to accommodate all the growers requiring his services as a local broker and even to embark on an ambitiou campaign of expansion as a pastoral financier was compounded of accident and design. When, in the late 'fifties, he commenced financing his clients[2] he was restricted by his

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(1) In 1892, for example, the Melbourne chairman of directors o Goldsbrough Mort & Co. Ltd., said of a grower who was in grave financial difficulties and unable to meet the company's claims on him that his efforts to secure an English capitalist partner was a satisfactory step "providing we do not lose the account altogether... for he has over 4,000 bales of wool this season". (Goldsbrough Mort & Co. Ltd., unbound correspondence, A.W. Robertson - A. Scott, (London Chairman of Directors) 18/12/1892. Even the superficial correlation which exists between the expansion of that company's advances and wool business after 1887 is midleading because while the advances were made on stations connected with the Melbourne business most of the apparently new wool business was that which was gained by the amalgamation with T.S. Mort & Co. in Sydney.

(2) This choice of dates is based primarily on a consideration of the fact that Goldsbrough withdrew from pastoral speculation and began concentrating on wool in 1857 (Goldsbrough Mort & Co. Ltd., Wool and the Nation Melbourne, 1946 p.68), the fact that Richard Goldsbrough & Co., Richard Goldsbrough & Hugh Parker (his partner) do not appear as the owners of any stations in Victoria in 1860 but between them formally owned 27 in 1869 (vide Return on Pastoral Occupation, Proceedings of the Victorian Legislative Assembly 1869, vol.2, paper C 19) and that the first foreclosure seems to have been made in 1865 (Goldsbrough Mort & Co. Ltd., Unbound Correspondence, J. Walker (Inspector, Bank of New South Wales) - J. Badcock (Melbourne branch manager, Bank of New South Wales) 10/6/1870; these are all consistent with, and point to, some time in the second half of the 'fifties. (The absence of the Company and the partners from the 1860 run lists may simply mean that mortgages were not registered and therefore formal transfer of ownership was not notified to the Lands Department. This was not an unusual practice even as late as the 'eighties and indicates the lender's confidence in the borrower's position. Obviously the probability of registering at least some of the mortgages increased steeply as the number increased.)

dependence on bank credit as the source of his lending power. Unable to compete with other financial institutions by lowering his interest charges he was forced to liberalise his valuations in order to attract the selling or consigning patronage of unattached growers. This tactic, superimposed on the boom values of the early 'sixties, was charged with danger. In fact, the restriction of financial competition to this one channel made it reckless and aggravated the effect on broking and other financing firms of the fall in wool prices and the value of pastoral property at the end of the 'sixties. In the specific case of Goldsbrough, despite the continued prosperity of the wool business, in 1869 and 1870 he was heavily burdened by the payment of interest on "dead" capital to his bank - capital made available by it and invested in securities which were neither in a position to pay interest nor realisable except at considerable loss[1].

The lesson of this crisis was unmistakable. Independence from bank credit would, firstly, permit him to attract trade and fight competition by lowering interest rates and therefore to avoid rashly liberal lending and, secondly, it would reduce the severity of the drain in interest payments during depressed periods. This lesson, it is suggested, lay behind Goldsbrough's break with the bank which had financed him during those years in 1876 and the transference of his business to another (of which he later became a director);

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(1) Cf. Goldsbrough Mort & Co. Ltd., Wool and the Nation, p.68. This period of the company's history is well documented in the unbound correspondence between it and the Bank of New South Wales which has been retained by Goldsbrough Mort & Co. Ltd.

behind the admission of two new partners in the same year [1]; behind the local promotion and formation of the Australasian Agency and Banking Corporation Ltd., in 1876/7 by, among others, J.S. Horsfall, one of Goldsbrough's partners[2]; and behind the subsequent purchase of his business by that concern.[3] Taken in conjunction these events provided: independence from a bank which was associated with unpleasant memories and, no doubt, an unindulgent eye; an expanded capital of his own with which to work; and, finally, the incorporation of his own banking institution, for the Australasian Agency and Banking Corporation had power to accept deposits, make advances and float debentures through its London office[4]. Gradually the bank overdraft which covered the old company's advances was reduced as deposits and debenture capital became the main source of finance. This process is clearly evident in Table XXII. The fact that the firm, because of land legislation, pastoral depression, drought, and perhaps problems of internal management, did not expand advances at all rapidly until 1885/6 in no way reduces the significance of these developments before 1881. It is from

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(1) Goldsbrough Mort & Co Ltd., Wool and the Nation, p.69.
(2) A.I.B.R., Vol.1., p.164.
(3) A.I.B.R., Vol. 5, p.290 for details.
(4) A.I.B.R., Vol.1, p.160, Vol.2, p.4. This fact accounts for the mechanism of the amalgamation: the Australasian Agency & Banking Corporation Ltd. bought Richard Goldsbrough & Co. through the latter name was retained. By drawing attention to this sequence of events we are not, of course, imputing improper motives to any of the participants.

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Table XXII.

Source of Funds available to R. Goldsbrough & Co. and Goldsbroug Mort & Co. Ltd., 1882-1892[1].

Balance Date	Call Deposits and Current A/cs in Cr. (a)	Fixed Deposits	Debentures	Bank Overdraft
	£	£	£	£
Sept. 1882	145,654	520,743	66,700	797,465
Mar. 1883	150,647	448,014	66,700	491,294
Sept. 1883	99,458	391,781	110,700	692,462
Mar. 1884	59,713	318,771	189,400	396,804
Sept. 1884	50,934	233,256	220,800	571,769
Mar. 1885	73,031	245,123	277,500	324,345
Sept. 1885	59,304	242,811	326,000	535,963
Mar. 1886	56,753	273,642	376,900	457,564
Sept. 1886	78,036	269,309	504,800	563,238
Mar. 1887	119,788	349,806	675,900	372,263
Sept. 1887	162,382	439,088	759,100	398,933
Mar. 1888	198,619	556,071	910,200	272,839
Sept. 1888	391,794	612,339	1,020,200	189,420
Mar. 1889	595,300	620,754	1,149,000	276,383
Sept. 1889	351,789	686,403	1,455,800	265,978
Mar. 1890	212,204	478,478	1,790,800	66,122
Sept. 1890	212,285	590,837	1,921,400	409,308
Mar. 1891	348,151	586,662	2,012,720	307,743
Sept. 1891	446,962	630,095	2,027,105	441,397
Mar. 1892	374,511	605,675	2,034,990	486,042
Sept. 1892	139,022	533,573	2,074,855	682,155

(a) Current A/cs in Cr. were those accounts which Goldsbrough's clients held in the firm's own banking department. Generally the individual accounts were small and were left with the firm to meet payments which it made on behalf of the clients - government rents, taxes, incidental purchases, etc. Because of their nature they would not have been an important credit base. The amount of call deposits, also held in the firm's banking department, cannot be separated from the current accounts.

(1) Source: Goldsbrough Mort & Co. Ltd., Balance Books. The change in name from R. Goldsbrough & Co. to Goldsbrough, Mort & Co. Ltd., occurred in 1888 when Mort's business was acquired.

that amalgamation that an official chronicler justly dates the company's entry into the field of "large scale pastoral finance"[1]. The essential point of the story, and the reason for recounting it, is the way in which the firm gained access to an apparently inexhaustable overseas source of funds without in any way compromising the disposal of the wool in which they were invested. Growers could raise capital in England, but it was generally on condition that the clip be sold there. Specialist consignment and importing agencies could dispose of shares and debentures in Britain too, but their internal policies forced the growers who borrowed from them to consign. Goldsbrough showed that broking firms could tap the same capital market and make the funds available to the growers without that restriction.

A parallel course was followed by most of the other major colonial brokers. In 1868 the Melbourne partnership of Cunningham and Macredie was strengthened by the admission of new partners.[2] The new concern, Hastings Cunningham & Co. sought limited liability with a nominal capital of £750,000 a decade later[3], and in 1880 it was given access to British capital by its amalgamation with the newly formed Australasian Mortgage and Agency Co., the head office of which was in Edinburgh.[4]

(1) Goldsbrough Mort & Co. Ltd., Wool and the Nation, p.70.
(2) H.M. Franklyn, op.cit., p.208.
(3) A.I.B.R., Vol. 2, p.196.
(4) Ibid., Vol. 4, p.270.

The London & Australian Agency Corporation Ltd., with head office in London absorbed J.H. Clough & Co., in 1866[1]. Similarly, the incorporation ofthe various Dalgety partnerships into one company with limited liability, first projected in 1878[2], was effected in 1884[3] and its first irredeemable debentures issued in 1887[4]. The Union Mortgage and Agency Co., formed colonially in 1884 with a nominal capital of £1¾ million to take over the business of William Sloane & Co.[5], transferred its domicile to London in 1887[6]. Although both this company and others like the Australian Mercantile Land and Finance Co. (which claimed to have been the first wool finance company to issue interminable debentures[7]) were not colonial brokers at the time their actions reflect the same trend. Some measure of the extent to which colonial brokers developed, during the 'eighties, internal resources from which they could finance both the production and marketing of wool may be gauged from the fact that in 1887 four of them raised a

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(1) Clough later severed his connection with this firm (November, 1870) and commenced on his own once again, only to be absorbed, in 1880 by the New Zealand Loan, Mercantile & Agency Co. (A.J.B.R. Vol. 4, p.338).
(2) Ibid., Vol. 2, p.196.
(3) Dalgety & Co. Ltd., op.cit., p.29.
(4) A.J.B.R. Vol. 11, p.266.
(5) Ibid., Vol. 8, p.549. It later absorbed the wool business of Jas. Turner & Co. one of the last large private companies in the trade in Melbourne (Ibid., Vol. 10, p.440).
(6) Ibid., Vol. 11, p.68.
(7) Ibid., Vol. 7, p. 254.

total of £1.3 million in new capital, mainly in England; the Union Mortgage and Agency Co. which assumed local broking functions in the following year alone raised a further million(1

Chronologically this move to secure British share capital and deposits was initiated in the 'sixties by some agencies like the Australian Mercantile Land and Finance Co. It was continued by colonial broking concerns in the 'seventies and 'eighties, and then the participation of colonial firms was strengthened and hastened as consigning agencies in England sought incorporation, raised capital in England which was wholly invested in the colonies and transferred the emphasis and centre of their businesses with it.

The new and vigorous financial competition between the banks in the colonies and the various types of pastoral finance and agency houses after the mid-seventies, and particularly during the 'eighties, increased the latitude of choice available to the growers. It became easier for them to transfer their accounts from one financier to another. This did not mean, however, that it was any easier for them to sell their clips in the colonies for the banks - the interloping competitors - remained firmly wedded to the London salerooms. Their large scale entry into the market provided, in fact, a force which ran against the prevailing tendency of the English pastoral financiers to shift their selling activities to the colonies.

The development of the financial resources of the colonial brokers in these ways together with the strengthening

(1) A.I.B.R. Vol. 12, p.5.

of the financial structure of the colonial selling trade as a whole by the migration to Australia of English controlled agencies created conditions in which it was possible for a substantial proportion of growers to sell in the colonies if they desired to do so. In addition, the growing financial power of the brokers did actually induce some growers to cease consigning. Loan policy, rate policy and the development of reliable selling institutions augmented with some success the core of small growers on whom the sales had depended in the 'sixties, and even in 1870 clips of substantial size were being offered in Melbourne. But despite the attractions these policies may have had, and despite the advantage the brokers had in the fact that the transport networks tended to bring the wool through the marketing centres, they were in themselves insufficient. The basic criterion by which the large growers were influenced remained the relative returns which were yielded in the two markets.

Changes in relative returns, it will be argued, were primarily a matter of a changing differential between colonial and London prices. This was complicated, however, to the extent that growers varied their selling policies in accordance with their expectations about price changes in the immediat future. The growth of the colonial auctions took place within the context of a falling trend in wool prices. If that fall was expected to show itself throughout each year it would be to the growers' advantage to sell locally rather than in London where the realisation would take place three months later. We have already argued[1] that in general terms the Australian

(1) See above, pp.148-151.

grower did not operate with this degree of flexibility and rationality. Nevertheless the correspondence of marked falls in prices[1] and pronounced increases in local sales in 1869/70, 1871/2 and 1879/80, of periods of steeply falling prices and rising sales in the early 'eighties and early 'nineties, and the disproportionate fall in sales (compared with the reduction of output) when prices recovered after 1894/5, seem to indicate that some flexibility existed, that it increased as the price differential between the two markets narrowed and that, from a long term point of view, shifts to the colonial market induced by price trends and afterwards maintained by rigidities, habit or inertia played a definite part in this re-location.

3. Overseas buyers and the colonial sales.

Prices obtainable in Melbourne and Sydney were a function of the nature of the buyers operating there. Buying for speculative re-sale at the London auctions necessarily limited the prices purchasers were able to offer to a figure well below the London equivalent[2]. They assumed a quality which attracted large growers only when consumers and dealers, whose offers did not need to include provision for a speculative profit at prices below the London equivalent, entered the market. The attraction of this group of buyers was not a thing to which the colonial brokers' policies contributed greatly. Th

(1) See below, chapter 8, section 2 and Table XXXIII, and Chart II, p.342, for the price movements.

(2) The A.I.B.R. estimated that to pay shipping charges, freight, marine insurance, interest on the investment, cost of realisation and a living profit, speculators needed to keep their colonial bids about 20% below the anticipated London realisation. (Vol. 1, p.500.)

stability of the charges was an advantage, and under pressure they showed themselves unwilling to alienate the buyers' goodwill. The scale of their charges was high, however, averaging 3/- per bale to the London rate of 1/2-2/-[2]. Moreover, the expense of establishing colonial buying branches was high and, in general terms, recoverable only by doing commission buying for other firms. Net dealers, and then consumers, from the five main consuming nations did in fact transfer at least part of their buying to the colonies in the 'seventies and 'eighties.

In a sense this movement was merely part of a wider shift which was then taking place in raw material marketing, and one which could be predicted, on *a priori* grounds, as a common economic phenemenon. It represented no more - and no less than a movement of the market back closer to the sources of production, whither it was driven by improvements in transport and communications, by the growth and increasing specialisation of consuming industries and, above all, by the growing diversity of consumers. The centralisation of the market in one consuming area became inappropriate for a truly world-wide consumption. The same phenonemon may be remarked in the cotton, wheat and, later, rubber trades[3]. The tendency was also most marked in the international trade in wool from other producing countries.

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(1) Cf. the case of the alterations in draft and tare in 1872/3 (pp.260/261above).

(2) Colonial rates at ½d. per pound on bales of about 290 pounds; London rates calculated on bales of similar weight from wool warehousemen's circulars made available by Browne & Eagle.

(3) Cf. on rubber F. Maurette, Les Grands Marches des Matieres Premieres (Paris, 1933 [revised edition]), p. 145ff.

By 1893 most Argentine wool was sold to Continental buyers in Buenos Ayres[1] and though considerable quantities of Cape wool were still consigned to London in the twentieth century European, particularly German, buying in South Africa had become common in the 'eighties[2].

Associated with this tendency were two other movements which resulted in a closer integration of the international and intra-national trades in wool and which facilitated the change in the locations of international wool markets. A specialised class of wool merchants, for whom there had been little need as long as manufacturers could attend or be represented at the central sales, emerged in France and Belgium and to a smaller extent in Germany from the 'sixties onward. It was this class which was to conduct most of the buying done in Australia on European account. At the same time national distributive markets developed on the Continent. There the manufacturers who could not afford to participate in direct importing could obtain foreign wools offered by the merchants. In addition, domestic wools which had formerly been disposed of at comparatively scattered fairs began to make their appearance at these auction centres.

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(1) Gibson, op.cit., pp.50,170-8.

(2) The correspondence and activities of Robert Jowitt & Sons, William Raistrick & Sons (Letters to Colonial Purchasers, to Walter Place & Co., Durban, from 1877 to 1890), Jeremiah Ambler & Co. of Bradford (The Account Books of Jeremiah Ambler & Co., transactions through John Hall, Port Elizabeth, from at least 1880 - mss, held by the Brotherton Library, University of Leeds) and Gustave Ebell & Co.'s account of German interest in Cape buying (Brodribb, Results of Inquiries passim) are sufficient indication of this practice.

Table XXIII.

Antwerp's Trade in South American Wool, 1840-1900[1].

Year	Arrivals	Sales	Wool in Transit
	Bales	Bales	Bales
1840	6,300	n.a.	n.a.
1850	21,294	n.a.	n.a.
1860	41,834	16,302	25,532
1870	111,767	100,736	11,031
1880	n.a.	98,922	n.a.
1890	45,348	35,823	9,525
1900	31,328	25,999	5,429

The rise and decline of Antwerp as the central market for South American wool is displayed in Table XXIII. The fall in the business transacted there after 1880 is due to the gradual rise of other markets which gradually supplanted it on the Continent. Roubaix-Tourcoing, the centre of the wool textile industries in Northern France, commenced auction sales of imported and domestic wools about 1880[2], and Havre, Bordeaux, Hamburg and Bremen became important alternative ports of entry and sale. Similarly, auction sales of Cape wool had

Table XXIV

Estimated Direct Imports of Cape Wool into Germany, 1879-1888[3].

Year	Berlin	Bremen	Hamburg	Total
	Bales	Bales	Bales	Bales
1879	25,000	7,000	9,000	41,000
1880	23,000	11,000	12,000	46,000
1881	26,000	10,000	14,000	50,000
1882	30,000	8,000	10,000	48,000
1883	32,000	12,000	10,000	54,000
1884	33,000	15,000	10,000	58,000
1885	35,000	11,000	4,000	50,000
1886	34,000	19,000	7,000	60,000
1887	46,000	20,000	2,000	68,000
1888	54,000	33,000	-	87,000

(1) Source: F.B. de Beck, op.cit., p.164
(2) F.B. de Beck, op. cit., p. 58.
(3) Source: F.B. de Beck, op.cit., p.117

been established in Berlin by the mid-'seventies[1] and, again, other regional centres competed with it for the growing trade. Table XXIV illustrates some of the shifts in the distributive pattern within the short period of a decade. By the 'nineties auctions were also being held in Forst and Leipzig where imported and domestic wools were offered side by side[2]. To some extent the importance of the main national markets was offset after the late 'eighties. Increasingly, direct imports by processors and consumers meant that they were by-passed, that the primary markets in the producing countries linked producer and consumer directly. The fellmongers of Mazamet, for example, did without the intervention of the French wool merchants and conducted their purchasing themselves first in South America and then, in the 'nineties, in Australasia. (By developing the extremely suitable natural resources at their command they were able to establish a virtual monopoly in the treatment of sheep-skins and in their purchase in those countries[3]). Despite that contrary indication, however, the national distributive markets occupied an essential position in the wool trade in the last quarter of the century. Instead of one central market for colonial wool in London, and another for South American wool in Antwerp, there developed a more complex dual-level system: primary markets in the producing countries which supplied both consumers and dealers, and regional secondary markets which stood between those dealers

(1) Brodribb, Results of Inquiries, p.10.
(2) F.B. de Beck, op.cit., p.62.
(3) Cf. R. Delaby, op.cit., pp.166-71.

and other consumers.

All the features of this general movement are also characteristic of the shift in the location of the market for Australian wool: direct purchases by merchants at the colonial auctions, the development of local selling points in Europe and the growth of consumer purchases in the colonies. Within the framework of the general explanation, - the diversity of consumer the improvements in transport and communications etc - special factors are relevant to the specifically Australian case.

In the first place the great expansion of foreign buying in the Australian colonies during the 'eighties was composed primarily of European purchases. That shift in the location of their purchases accorded well with the prevailing forms of economic nationalism. The fact that France was forced to obtain her supplies of colonial wool from London, and to a slighter extent that her South American wool came from Antwerp, offended the amour-propre of her growingly self-conscious industrial leaders. That dissatisfaction had found expression as early as 1860; in the two succeeding decades frequent, and sometimes bitter, complaints were made in France and Belgium about their dependence on London(1); and when the volume of business at the Australian sales seemed likely to equal that in London the news was given joyous reception by the French press(2). Even modern commentaries on French trading relationships in the nineteenth century credit the shift almost entirely

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(1) Cf. Renard Bros. & Co., on.cit., p.4; P. Pierrard, Etude sur l'industrie lainiere, passim.

(2) A.I.B.R., Vol. 15, p.577 quoting le Bulletin du Musee Commercial.

to the desire to break London's monopoly(1).

The attitude, common probably to all developing industrial economies, reflected the altered composition of the European wool textile industries. Continental demand for colonial wool rose with the growth of French, German and Belgian consumption(2). By the end of the 'seventies they represented, collectively, a market force at the London sales greater than that of the United Kingdom(3). It was this that produced and excused Continental bitterness about the dependent status of their wool buyers, and even British critics were compelled to recognise that their own role constituted little more than that of "mere brokers and bankers between /the colonists/ and foreigners"(4).

Economic nationalism, however, was in itself not a sufficient motive to have sent French and Belgian buyers to Australia, for in the 'sixties and 'seventies manufacturers could obtain their supplies quite successfully, even though distastefully, in London,(5). Yet the economic reality which lay behind this attitude and from which Continental direct buying derived its impetus did in fact lie in the competitive

(1) Cf. Delaby, op.cit., p.163; Maurette, op. cit., pp.70,86; A. Picard, op.cit., p.354.
(2) Cf. Table XII (p.50) and chapter 2 section 2 generally.
(3) Cf. Table XI (p. 48).
(4) T. Illingworth, op.cit., p. 32. We cannot, however, agree with Illingworth's estimate (p.31) that France alone consumed a third of Australian production.
(5) In fact, many trade observers felt that they ruled the market. Cf. Wrigley & Bousfield, op.cit., pp.17, 44; Report of the Tariff Commission, Vol. 2, para. 1321.

position of the Continental buyers vis-a-vis their English rivals. But the emphasis which has been attached to the attitude and the competition is quite misplaced in relation to an explanation of the development of the colonial sales.

The sequence of events was that the first movement to direct colonial buying was made by English dealers and consumers.(1). It was only when those activities began to threaten to undermine Continental manufacturing did any extensive transfer of French and Belgian buying take place. The competitive reality was there, but it operated during the late 'seventies and 'eighties and the importance of the response to it lay in the consumation by Continental buyers of a trend started by the British.

The reasons underlying the British move may be found in the competitive position of the wool textile producers. On the one hand, in the 'seventies, the woollen and worsted branches were both faced by the falling prices and narrowing profit margins produced by the "general depression". Despite that, production and consumption were maintained - though with irregularities and though sometimes production was only for stock(2). This led to intensified competition between individual concerns in the raw wool market, for the acquisition of materials exactly suited to their needs - from which the waste was least

(1) Some continental buyers, of course, anticipated the general movement of both British and Continental purchases. Henri Wattine, Renard Bros. and Masurel fils et Cie. were among continental buying firms operating in the 'sixties, and direct exports to the Continent had been made in 1859 (Sydney) and 1861 (Melbourne).

(2) Cf. Dobson & Ives, op.cit., p.40.

in their own particular processes - became more than usually essential. For that wool they were prepared, within the broad and depressed limits set by the industry as a whole, to bid with spirit. The same considerations also applied, of course, to Continental manufacturers. On the other hand, both the worsted and woollen industries in England were subject to additional competitive pressures of a different sort.

As we have already seen(1), the change in consumer fashion away from the mixed lustre goods, on which English worsted production had tended to concentrate, to the soft all wool worsteds in which the French manufacturers excelled, forced the English industry to turn to colonial wool and to adapt its machinery. The adjustment was by no means wholly successful. The industry steadily lost ground and by the mid-'eighties had surrendered a large part of the export market in Europe and French manufacturers were invading the home market(2). At the same time the superiority of the organisation of the English export trade, on which a substantial part of its success had rested, was being challenged as French manufacturers developed foreign trading channels. The commercial treaties negotiated in the 'sixties had brought prosperity to both the woollen and worsted industries. Now the reimposition of protective tariffs at the end of the 'seventies and the beginning of the 'eighties steadily reduced their markets. Woollen exports suffered most, and worsted exports were maintained primarily by expanded trade in yarn and later

(1) See above pp 45-6.
(2) Cf. Sigsworth, op.cit., pp.129-35,145.

in tops and noils[1]

The growing competition in foreign markets, and the change in fashion, led to increased competition between the woollen and worsted industries in the home market. Although it was to become far more pronounced in the last two decades of the century, this was already apparent in the 'seventies. Unable completely to meet the challenge of the French manufacturers in the all-wool worsteds the English worsted manufacturers developed other new fabrics, also utilising colonial wools, which tended to displace woollen fabrics — worsted coatings for men's wear, suitings and trouserings. Moreover, though the growing difficulty of distinguishing between woollen and worsted fabrics and processes did not become significant in England until the late 'eighties, in the 'seventies the two branches were competing more and more frequently for the same types of wool. Not only was the worsted industry using more of the short merino previously used, in England, primarily by the woollen, but the growing manufacture of tweeds in Scotland and Yorkshire involved the use, by woollen manufacturers, of long wools formerly used solely in the worsted processes[2].

In other words, the picture of the English industries which emerges during 'seventies and early 'eighties is one of depression, intensified manufacturing competition between the woollen and worsted industries at home, and between both of them and foreign industries, and extended competition between the two branches for similar types

(1) See Table XIV, (p.60) for the role of yarn exports.,
(2) Baines, op.cit., p.663.

of wool. These conditions placed an enhanced emphasis on the importance of wool buying. When, therefore, English manufacturers were approached by Australian buying brokers with proposals to purchase on their behalf, they readily succumbed, particularly when those purchases could be linked with return consignments of cloth and the opening of new and direct export channels(1). For dealers, too, the prospect of being able to buy wool at rates which had afforded profits to speculators whose purchases they themselves had formerly, in effect, bought in the London market, was an attractive one. They operated, initially, through colonial buying brokers and established their own buying branches only later, as circumstances constrained them and the size of their colonial operation allowed them(2).

Though the movement to colonial buying was initiated by the English trade, the expansion of the colonial markets in the late 'eighties and 'nineties was essentially based on the activities of Continental buyers. After 1881 French imports of wool from London declined appreciably though her consumption continued to rise sharply(3); by 1900 she imported more than twice as much direct from Australia as from England (and, incidentally, nearly twice as much South American as Australian)(4). In the 1890/1 selling season 56% of the sales at the colonial

(1) Cf. the reciprocal arrangements between J. Raistrick and W.H. Chard (Raistrick Records, "Letters to Colonial Purchaser" (passim.)
(2) Cf. Barnard, Y.B.E.S.R. Vol. VIII, no.1.
(3) See above, chapter 2, Tables XIII and XIV.
(4) In the three year period 1898-1900 France imported an annual average of 52.8m. lb. from the United Kingdom, 86.6m. lb. from Australia and 228.3 m. lb. from Argentina and Paraguay (Picard, op.cit., p.360).

auctions were made to Continental interests.[1]

European manufacturers and dealers, it is suggested, moved the scene of their buying to the colonies in order to salve their national feelings and to retain their competitive position with English manufacturers. This second motive is of some importance, since French writers have often argued that the escape from the "yoke of London" was partly motivated by some specific disadvantages implied in the indirect import, or from some specific advantage which British manufacturers derived from having the market in their own country[2]. This is illusory. Transport costs from London to the French manufacturing centres were no more, and in some cases less, than those to Yorkshire[3]. They might have felt the inconvenience of arranging their transactions through buying brokers, but the English freedom from those intermediaries was only one

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(1) Goldsbrough, Mort & Co. Ltd., Australian Wool-Its Position and Prospects in 1895 (Melbourne, 1895), p.13. The complete breakdown by destination of the 1890/1 local sales shows the Continent accounting for 56%, England and Scotland 28%, the United States and Canada 6%, and other destinations (including local speculators and manufacturers) 10%.

(2) E.g. Picard, op.cit., p.346; Pierrard, Etude sur l'industrie lainiere, passim.

(3) H. Illingworth and J.V.Goodwin, Special Report prepared for the Tariff Committee of the Bradford Chamber of Commerce, 1876, found that while wool could be transported from London to Bradford in 3-5 days at a cost of 40/- per ton, it took 8-10 days at a cost of 30/8 per ton to carry it to Fourmies and cost only 25/10 per ton to Roubaix (This report was drawn to my attention by Dr. E.M. Sigsworth of the University of Leeds, who kindly lent me a manuscript copy of it together with the authors' summary of the responses to questionnaires circulated to French Chambers of Commerce). Wrigley and Bousfield, (op.cit., p.16) placed 1878 carriage costs to Bradford and Galashiels at 37/6 and 42/6 a ton respectively, and to Elbeuf and Sedan 35/-. The same general claim was still being made in 1904 (Tariff Commission, op.cit., para. 1321).

of degree[1], and both were equally subject to it when buying in the colonies.

What colonial buying did achieve was to restore French and English competition to their previous relative positions, for by by-passing London the English had gained a distinct advantage.

The specific attraction in the colonies for all buyers was the possibility of obtaining wool from what was still, in the 'seventies and early 'eighties, a speculative market where, by definition, the prices tended to be below those ruling in London. In formal terms, the buyers' top price was that which they would have to pay in London, less the transport, insurance and exchange costs and the difference in buying costs in Australia and London. The lowest price acceptable to colonial sellers was the London price less freight etc., and the difference in selling costs. As the difference in selling costs (0.295 to 0.355 d. per lb at a price of 12d.) exceeded the difference in buying costs (0.045 to 0.080 d. per lb.)[2] there was a band of prices at which both sellers and buyers found it more profitable to operate in the colonies than in London. (This resulted, of course, from the elimination of the consigning and importing agents in the colonial market.) Moreover, as this was a market in which, before the large scale operation of the dealers and consumers, the main sellers were weak - willing to accept lower returns in return for immediate

(1) In 1870 approximately two-thirds of the wool sold in London was purchased through buying brokers (The Sales of Australian Wools in London..., p.23).

(2) See above, pp. 261, 274.

settlement - the gap between colonial and London prices was wider than the formal calculation suggests. This was why speculators had been able to buy there for resale in London. In these circumstances consuming ord 'seventies and early 'eighties were able to economise in their raw materials by buying in the colonies.

In addition, Continental and to a slighter degree English buyers were able to effect savings in transport. When purchasing in London Continental buyers had, in effect, to pay for the freight from Australia to London as well as that from London to their mills. Direct transport from Australia to Continental ports reduced the combined rate, though this entered their calculations only after 1880 for prior to that date imports were still shipped via London[1]. Similarly, English manufacturers buying in the colonies tended to divert their shipments to ports closer to their area[2]. Freight rates could also be reduced by chartering ships instead of spreading the load over a number of vessels at the ruling rate[3]. By 1894, when the scale of prices was no longer that appropriate to a speculative market it was estimated that the economies of the market made it possible to bring wool to the Continent from Sydney at a landed price of up to ⅜d. per lb.

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(1) See the Australasian Mortgage and Agency Co.'s market report in The Australasian Trade Review, 15/3/1882 and R. Goldsbrough & Co.'s in The Journal of Commerce, 14/2/1883.
(2) J.H.Clapham, The Woollen and Worsted Industries, p.101.
(3) Cf. J. Leach, op.cit., p.11.

cheaper than from London[1].

In the early 'seventies buyers on American account played, with the English, an important role in supporting the developing colonial sales. Tentative enquiries from American consumers in 1870 and 1871 and the swelling volume of business in the following years[2] (Table XXV) arose fundamentally from the increasing protection which was given to the American wool growing industry after 1867. Though Sir Henry Parkes added to the numerous representations for a reduction of the duties[3], and though aggregate American demand for Australian wool would have increased had they been removed, their existence offered a stimulus specifically to the local auctions. In the first place the construction of the tariff made in imperative that merino wools in particular should be imported in the greasy state[4], and the colonial sales offered a higher proportion of greasy wool than London whence most American imports had come. (The same motive may be attributed to some French buyers, for Continental preference for greasy and English preference for

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(1) J. Heath. op. sit., p.49.
(2) Cf. R. Goldsbrough & Co's market report in The Journal of Commerce, 20/7/1871; Argus, 12/2/1872.
(3) The Australasian Trade Review, 17/1/1872.
(4) The duty on washed wool of the Australian varieties was twice, and that on scoured wool three times, that on greasy wool, and the extra freight payable on greasy wool (including the carriage of the dirt etc.) did not offset that advantage. Cf. The National Association of the Wool Manufacturers of the United States, The Woolen Tariff Explained and Defended (Cambridge, Mass., 1886) p.16.

washed and scoured wool was very marked[1]. Secondly, taking transport costs even to Boston into consideration, colonial prices were far below those in London. In 1883 it was calculated, for example, that wool bought at 20 cents per pound in Sydney cost only 0.65 cents more to land in Boston, transport and duty paid, than wool bought at the same price in London[2]. The twenty cents would buy wool of far superior quality in Sydney than they would in London. The impetus given to the colonial sales in the early 'seventies is clearly evident in Table XXV. The instability of those purchases deriving from changes in the tariff is equally evident.

Table XXV.

Direct Wool Exports from Melbourne to the United States, 1866/7-1882/3(3)

Year	Exports	Year	Exports.
	bales		bales
1866/7	1,200	1876/7	7,576
		1877/8	5,071
1871/2	18,659(a)	1878/9	-
1872/3	11,851(b)	1879/80	17,551
1873/4	9,745	1880/1	3,372
1874/5	19,042	1881/2	11,070
1875/6	5,032	1882/3	5,794

(a) Including about 1,800 bales addressed to Montreal.
(b) Including about 1,900 bales for Montreal.

(1) Pierrard, The Standard Wool Bale, p.24. It is significant that the only European countries in which, before the middle of the century, sheep were not washed prior to shearing were France and Spain. French manufacturers carried this preference into foreign wools while English manufacturers accustomed to washed wools, accepted the new style less readily (de Bec, op.cit p.23.)

(2) Cf. the hypothetical cost calculations given in The National Association of Wool Manufacturers of the United States, op. cit., Appendix C, p.53.

(3) Source: R. Goldsbrough and Co, "Annual Review of the Wool Market", Argus. 14/2/1883.

The activities of buyers from these three centres led to cumulative, competitive imitation. Manufacturers, particularly in England, produced what were virtually speciality cloths and their individual needs were confined to a relatively narrow range of wools the supply of which was more or less limited. When one or two went to the colonies direct, the others were forced to follow suit or risk having their supplies cut off before they even reached London(1). As the market grew, moreover, other factors began to enter their calculations: the savings in transport time which they could effect, and their ability to have new season wool in the mill six weeks after it reached the colonial port instead of many months later-and therefore in much better condition; and the greater ease with which they could value greasy wool which had not been pressed down in bales for many months(2). These advantages and the ways in which consumers could reap them became known through the ordinary trade channels and through consular reports which conscientiously reported market developments and trade practices(3).

The assumption by the buyers of the market risks inherent in transporting the wool to Europe or America can, in retrospect, be seen only as an indication of the competitive pressures to which they were subjected and of the wide disparity

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(1) Cf. J. Leach, op.cit., p.23.
(2) Ibid., p. 53.
(3) E.g. F. Gagliardi, op.cit.; M.E. Pollett, Australasie: La Nouvelle Galles du Sud (Bruxelles, 1898), Australasie.1900 (Bruxelles, 1900); United States Bureau of Statistics /U.S. Special Consular Reports/ op.cit.,

between London and Colonial prices which initially existed. The competitive pressures became more apparent in the great growth of the colonial sales in the 'eighties for this was a period when colonial prices were nearing relative parity with London and when their trend was downward(1). The growers' willingness to surrender those risks was a function of the impact of the colonial brokers' persistent repetition of the speculative dangers of consignment, of their gradually increasing vague dissatisfaction with the London sales organisation and, in the 'eighties, of the trends in prices.

The considerations presented above, however, throw light only on why they were willing to transfer their buying operations. The ability to execute those desires on a wide scale was, as we have already implied, dependent on the buyers' ability to overcome certain obstacles which had barred the expansion of the colonial markets in the 'fifties and 'sixties. The obstacles were two: transport and communications, and finance. The opening of the Suez Canal and the construction of the Alpine tunnels, together with the opening of direct shipping lines to the continent in the 'eighties helped surmount the first. More important, perhaps, was the completion of the cable link between the colonies and Europe in 1872. This enabled consumers and dealers to communicate price limits and

(1) One would expect that in a period of falling prices manufacturers would prefer to purchase in London for two reasons. There they could purchase small quantities at fairly frequent intervals throughout the whole year, and leave their purchasing later than they could in Australia. Some, like Raistrick ("Letters to Colonial Purchasers" 11/2/1887) did in fact largely withdraw from the colonial markets, but the aggregate movement was otherwise.

buying orders to their representatives which accurately reflected current conditions in Europe, whereas previously their orders may have been months out of date when they were executed.

The changing structure of the European textile industries which tended to concentrate demand into fewer and more highly capitalised firms(1), played a large part in easing the financial difficulties of overseas buying. Raw wool merchants, worsted merchant-combers and spinners, relatively large woollen manufacturers and, in France, large vertically integrated worsted mills were more readily able to finance imports out of their own resources. More generally, the scale of their operations meant that they were able to secure credit more easily. In addition it meant that they were not embarrassed as small firms were, by a desire to work the wool up before payment was due and they were therefore able to operate within even the most restrictive credit conditions and conventions. In both the woollen and worsted industry there were, however, firms which could not claim these advantages of scale and their recourse to banks and acceptance houses posed more complications. It was in order to meet their demands that the inconveniences attaching to this form of financing - the buyer's desire to process the material before the bill was due and the financier's desire to retain title to it until after payment was made - were resolved by the device of supplementary documents letters of trust, which were exchanged for the bills of lading.

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(1) See above, chapter 2, section 3.

The Continental buyers laboured under an additional handicap which, in fact, played a large part in retaining for so long a monopoly of the sales for London. That handicap was the financial supremacy of the City of London. Not only was it pre-eminent as the money market of the world but it was the key to credits in the colonies, for virtually all their imports came from Britain. Credits had to be opened in Australia before wool could be bought there. But even banks and acceptance houses which were fairly specialised in the wool trade were uneasy about granting credit to foreign buyers, especially if the produce was shipped direct to the Continent(1). One approach to the problem lay in increasing European exports to Australia. It was suggested in the 'sixties that the lead in direct French buying would be taken by manufacturing textile exporters(2). This idea was to some extent embodied in the activities of firms like Renard Bros. and the Belgian Export Co., which, from the 'sixties and 'eighties respectively, indented Belgian goods and exported wool from the colonies, and of Newell & Co., a merchant firm which acted as buying brokers mainly on American account. For French buyers a specialised channel for securing credits in Australia was provided by the establishment of colonial branches of the Comptoir d'Escompte

(1) Cf. C. Mackenzie, Realms of Silver. One Hundred years of banking in the east (London, 1954) pp. 120-4, 149 for an analogous account of the policy of the Chartered Bank of India, Australia and China in respect of bills drawn on European consignees.

(2) Pierrand, Etude sur l'industrie lainiere, pp 31-2.

de Paris in the 'eighties[1]. In general, however, Continental buyers were forced to arrange their finances through London.

Because of its doubts, London's requirements as to the size and standing of applicants for accommodation were more stringent for Continental than for English buyers. This helped to develop, and was overcome by, a distinctive feature in the structure of the Continental wool importing trade. Though spinners and combers from France, Belgium and Germany were represented at the colonial sales, they played a less important part than their English counterparts. A very large part of the continental buying in the colonies seems to have been done by groups of three or four large dealers from each main country.[2]. They represented the specialised class of dealer-processors which developed when European countries first sought their wool in the producing countries and they largely resold their purchases on the national secondary markets like Berlin and Roubaix-Tourcoing. They were specialised in foreign buying and the scale of their operations was so extensive, their internal resources so large, and their standing so high that they could obtain credits through London both for themselves and for clients for whom they bought on commission.

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(1) It was reported that this extension of the bank's activities was underwritten by a group of French merchants who guaranteed the operations of the first few years (A.I.B.R., Vol.5, p.71)

(2) There is little direct evidence available on this question. Ours is a qualitative judgement based on conversations with members of the trade, examination of marked sales catalogues and, where available, the detailed lists of wool exports.

4. Conclusion.

The gradual transfer of buying which developed in this way had far-reaching effects on the prices realised at the colonial sales. While buyers had been attracted in the first place by the wide differential between colonial and London prices, as more and more of them changed their buying policy and came to the colonies that differential was steadily narrowed. The American buyers, in particular, exerted a market influence out of all proportion to the size of their purchases. Their preference for light conditioned greasy combing wools and the way in which, in order to secure suitable parcels from a fairly restricted supply, they bid prices very nearly the full equivalent of those in London soon became a source of constant delight to the colonial selling brokers(1). The French and Belgian buyers, also, soon turned their attention to better quality wools for which, as specialist manufacturers, they were willing to pay relatively high prices.

Although the part played by local colonial manufacturers producing behind mildly protective tariffs, in bidding up the value of small lots of possibly inferior wool may not be ignored(2)

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(1) Cf. the Australasian & Mortgage Agency Company's market report, Australasian Trade Review, 16/1/1884.

(2) Cf. Royal Commission on the Tariff, Report and Minutes of Evidence, Victorian Parliamentary Papers, 1883, Vol. 4, paper 50, questions 2918-20, 5647-9. In 1884/5 the Victorian textile industry consumed 1,501,000 lbs. of raw wool and in the following year, 1,797,947 lbs. (Victorian Year Book, 1886).

the peculiar service rendered by the French and American buyers was the attraction to the sales of the large, well-bred station clips. The types of wool which they sought were those which, in colonial auction rooms, had often realised insufficien to cover the less flexible costs of station production and which had not, therefore, been offered there in significant quantities. It was the demand which these groups exercised, translated into relatively high prices, which turned the balance for the large graziers. Their decision, in turn, together with the financial development of the colonial selling brokers which made it possible for them to secure their accommodation from colonial concerns, forced the large consigning houses like Dalgetys to become colonial brokers themselves in the 'eighties and so complete the transition from a market centred on London to one located in the colonies.

III.

THE PRODUCT OF THE OPERATION OF THE MARKET

Chapter 8.

Marketing Costs and Wool Prices

One of the major gaps in the source materials of the economic history of the nineteenth century is a body of adequate statistics. The wool trade is better served than others for it, and the wool textile industries, were so important to the producing and consuming countries that a comparativel full collection of statistics was built up. Nevertheless, the difficulties are very great. The time units to which figures refer changed basically from time to time and differed between countries; they included different material and were based on different definitions of basic activities and commodities; and they vary from informal guesses and estimates to calculations from official records and censal investigations[1]. To deplore these deficiencies and to lament the inability of the statistical material to meet our requirements merely reflects the compa ative youth of organised statistical effort. It is also a confession of our dependence on imperfect data.

In no field is this inadequacy so pronounced as in price statistics. Yet price is the variable in which we are interested, for it was a characteristic of the market that growers did not carry stocks and that, with the unimportant

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(1) Even official records may err. Paul Pierrard, a French wool buying broker in London and a Fellow of the Royal Statistical Society, in 1887 expressed the view that "Notwithstanding appearances, all previous wool statistics are simply delusive and incorrect" (original italics) (The Standard Wool Bale..., p.8). Cf. also p.38, n.1 above.

exception of dealers' speculative stocks the supply of wool equalled the auction offerings and the quantity sold equalled the quantity supplied. The corollary of this was that the effects of movements in supply and demand were absorbed in the prices established(1). Moreover, from the realisations based on those prices were deducted the charges which the growers had to meet in order to sell their produce(2). Some of these costs were established as the prices of services performed wholly within the market; others were determined independently of the wool market and its structural appendages. All of them played an essential part in the determination of actual realisations.

What it is intended to do here is to bring together what data there are on marketing costs and prices in an endeavour to establish some basic statistical series, and briefly to describe the behaviour of these variables over time.

1. The costs of marketing.

The marketing process was a long and fairly complicated one, involving the physical transport of the goods over long distances and the intervention of many skilled market functionaries to bridge economic separation of consumers from producers. To realise his wool it was necessary for the wool

(1) This is admirably analysed by G. Blau, "Wool in the World Economy", Journal of the Royal Statistical Society, Vol.109, p.179.

(2) For most of the growers - for all in fact who did not sell their clips by direct private treaty with the buyers - this statement is quite literally true. The agent who arranged the sale - the English importing agent or the colonial selling broker - paid most of these costs (frequently including freight and insurance) on the grower's behalf and deducted them from the gross proceeds payable on the account sale.

grower to pay for transport, insurance and storage; to pay commissions to the agents who performed middlemen functions; to pay for the weighing, sampling and lotting which preceded the sale; and to pay the costs of holding and publicising the sale itself.

(a) Inland carriage.

The first expense[1] that arose was in the transport of the wool from the sheep station to the coast - either to a port for consignment overseas or to a colonial selling centre. During the sixty years after 1840 the nature and conditions of this inland transport, and with them the costs, changed tremendously.

A most noticeable feature in that period was the gradually increasing efficiency of road transport. In 1840 the grower had to rely almost entirely[2] on bullock-drawn carts which followed ill-defined tracks and rude roads. One aspect of the response to the vast increase in colonial populations which occurred in the 'fifties was the startling improvement in the number and quality of roads - secondary as well as major - and the establishment of large scale specialist carrying concern Between 1857 and 1864 alone the time and the cost of road haulage, at least on the main highways, was reduced by up to

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(1) Expenses for packing, sorting and scouring wool are not included here. Though the line of separation may be uncertain at times (for these services were sometimes performed by specialists in the towns) they were essentially costs of producing a given physical commodity rather than costs of marketing it.

(2) Though small, the proportion of wool taken direct to the nearest minor port and then shipped coastwise to the larger ones was larger in the 'forties than in the last half of the century.

a half[1]. During the following decades the work of improving the roads to service an expanding and spreading population was carried on by colonial governments and local authorities[2], while larger and more efficient carts were introduced by the carrying firms.

The most significant development, of course, lay in the introduction and growth of river and railway transport. The utilisation of the Murray, Murrumbidgee, Lachlan and Darling rivers system terminating in South Australia largely replaced the necessity of road carriage to Sydney or Melbourne from extensive areas in the Riverina, northern Victoria and the south-east extremities of South Australia. Similarly the spread of railway systems after the 'fifties directly displaced road carriage in their immediate vicinity. Over those journeys the costs were substantially reduced. Direct comparisons are difficult to make because of the variable nature of the road carriage rates and because back-loadings of wool were generally carried at rates lower than those quoted for the outward trips to which published tariffs applied; the quotations for wool carriage which have survived, moreover, are scattered both as to time and place and are only rarely those which are directly

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(1) The journey from Sydney to Albury was reduced from between 40 and 90 days at a cost of £25 to £30 per ton to 21 to 40 days at £7 to £9 per ton; to Orange, from 18 to 36 days at £18 to £23 was the rule in 1857 while in 1864 it took only 12 to 15 days at £6/10/- to £8/10/- per ton. See the table presented in the Report of the Commissioner on the State of the Roads, Journal of the Legislative Council of N.S.W., 1865/6 (Vol.13), p.237.

(2) In the twenty years 1860-79 an annual average of 13% of the colonial public authorities' gross outlay on capital goods was associated with roads. See N.G. Butlin and H.de Meel, Public Capital Formation in Australia, Estimates 1860-1900, Australian National University Social Science Monographs II (Canberra, 1954), pp.100-103.

competitive with railway or river freights. In general terms, however, the saving is quite apparent. In 1864 road transport from Goulburn to Sydney took between five and ten days and cost some thing less than between £3 and £4/10/- per ton (the outward rate for general merchandise)[1]; in 1869, the first year of the service, railway carriage of wool took only fourteen hours and cost only £1/7/6 per ton[2]. Similarly, in 1862 the river and road carriage from Hay in New South Wales to Melbourne was said to vary between £15 and £20 per ton[3]; by 1880 the combined river and rail transport cost was between £4/15/- and £5/15/- per ton including insurance. While the road carriage from Hay to Deniliquin, a distance of about ninety miles, was £2/10/- per ton the rail freight from Deniliquin to Melbourne, about two hundred miles, was only £2/15/-[4].

In addition to the immediate saving in freight, however the time saved by these more efficient means of transport was of considerable importance. More rapid carriage meant not only the ability to get the wool to an earlier sales series but also a saving in interest. This is most obvious over long distances. River carriage from properties on the upper Darling, for

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(1) Report of the Commissioner on the State of Roads.

(2) Report on the Construction and Progress of the Railways of New South Wales from 1866 to 1871 inclusive, N.S.W. V. & P. 1872/3, Vol.2, Appendix 29.

(3) Select Committee on the Riverina Districts, Report and Minutes of Evidence, Proceedings of the Victorian Legislative Assembly, 1862/3, Vol.2, paper D 42, question 203.

(4) C. Lyne, The Industries of New South Wales, (Sydney, 1882), pp.250, 253.

example, was about 50/- per ton at the end of the century. It was nevertheless cheaper to pay about 95/- per ton on the railway from Bourke because to the river rate had to be added insurance of about 15/-% and because the river trip took about six weeks longer (in a good season when the river was open). On wool worth 15d. per lb. the six weeks' delay, at an interest rate of 6% per annum, meant the actual or imputed addition of about another £1 per ton to the grower's costs(1). Even on short journeys of 200 miles the difference could amount to 3-4/- per ton.

These comparisons refer to those instances where the rail or river carriage was directly substituted for road haulage It is important to realise, however, that the pastoral areas directly served by the railway networks, even at the end of the century, were relatively limited. Consequently, while the cost of all wool carriage was reduced to the extent that railway or river transport could be used, the cost of road carriage to the railhead or river port remained a major item in marketing costs, varying widely with distance, location and the state of the weather(2).

(1) Royal Commission into the Condition of the Crown Tenants in the Western Division of New South Wales, Report and Minutes of Evidence, N.S.W. V. & P., 1901, Vol.4, question 12919.

(2) In the early 'seventies, for example, the normal rate from Tenterfield to Grafton (about 80 miles) was 2/- per ton-mile but in 1872 adverse weather conditions forced it up to over 3/- (Collaroy Papers, Vol.5 "Letters and Papers of R.J. Traill, unknown correspondent to Traill dated 31/12/1872). Similarly at the turn of the century carriage for a distance of about 25 miles from Narrabri rose from a normal 9d. per ton-mile to 1/- and 1/2 in unfavourable weather (Parliamentary Standing Committee on Public Works, Report and Minutes of Evidence on the Proposed Railway from Narrabri to Walgett, N.S.W. V. & P., 1900, Vol.5, question 460).

After the arrival of the wool in the main ports two separate cost structures must be distinguished: the one appropriate to wool despatched for sale in London, and that appropriate to wool sold in the colonies. Most of these cost items can be identified and, unlike inland transport[1], measured with considerable accuracy.

(b) Selling in London.

The main cost incurred in consigning to the London market was ocean freight. This fell throughout the last sixty years of the nineteenth century as the increasing volume of imports, particularly during the 'fifties, increased the tonnage of shipping available to the trade, as the larger and speedier steam ships were added to the run and as a result of the opening of the Suez Canal route.

One by-product of the colonial gold discoveries in the 'fifties is clearly discernable in Table XXVI in which the freight rates payable in a number of years immediately before and after 1850 are compared. The vastly increased colonial population led, during and after the 'fifties, to greatly expanded imports of goods of all descriptions from England. The shipping required to transport these imports increased more

(1) Any measure of the cost, to the industry, of inland carriage would be at best a guess. It would be possible to construct tables showing the average costs per lb. of wool by dividing Australia into a large number of fairly small geographical regions, calculating the current transport charges in each year to the main ports from each of them, then weighting those costs according to the regional wool production and finally taking an average. Such an effort would be entirely unwarranted in a study of this nature.

rapidly than the wool for export[1]. The bulky wool bales,

Table XXVI

Freight Rates, on Washed Wool, Melbourne to London, at selected dates, 1845-1855 (2)

Date	Rate	Date	Rate
	d. per lb.		d. per lb.
Dec. 1845	1½	Dec. 1851	1
Dec. 1847	1½	Nov. 1852	¾
Feb. 1849	1¼	Dec. 1853	⅞
Jan. 1850	1	Jan. 1855	1
Feb. 1851	¾		

instead of providing the main cargo for the round trip, were treated almost as back-loading during the early part of the 'fifties and even after the immediate boom in importing eased the increased facilities permitted a permanent reduction in rates. As Table XXVII indicates, freight rates by sailing ship rarely exceeded 1d. per lb. for washed wool in the years after 1851[3].

(1) The tonnage cleared out of Port Phillip rose from an annual average of 75,030 in the three years 1848-50 to 634,041 in 1858-1860.

(2) Source: newspaper reports of freight rates, published as commercial news.

(3) Naturally there could be quite violent short term fluctuations as the quantity of shipping in the port varied from month to month. Monthly quotations from Melbourne in 1885, for greasy wool by sailer, show the following normal pattern of movement between January and December: ⅜d., ½, ½, ½, ⅜, ⅜, ⅜, ⅜, ⅜, ½, ½, ½d.

Table XXVII

Wool freight rates from Sydney and Melbourne to London, at quinquennial intervals, 1845-1890(1)

Date(a)	Freight rates (b)				
	Sailing ship			Steam ship	
	Greasy wool		Washed wool	Greasy wool	Washed wool
	Sydney	Melbourne	Melbourne	Melbourne	Melbourne
	d.per lb.				
Dec. 1845	-	-	1½	-	-
Jan. 1850	-	-	1	-	-
Jan. 1855	-	-	1	-	-
Oct. 1860	5/8	¾-1	n.a.	-	-
Dec. 1865	½	½	½	-	-
Nov. 1870	3/8	½	5/8	-	-
Nov. 1875	3/8	½	5/8	¾	1
Nov. 1880	11/16	5/8	¾	1⅛-1¼	1¼-1½
Nov. 1885	3/8	3/8	½	½	5/8
Nov. 1890	7/16	½	5/8	¾	7/8

(a) Sydney rates are annual averages; Melbourne are monthly. The two are therefore not comparable.

(b) All these rates were subject to an additional 5% primage.

Steam ships were first used on the monthly mail runs from England in 1865. It was not until 1877 that the first steamers not under mail contract arrived. Until that time therefore the major part of the clip was lifted by sailing

(1) Sources: Sydney: W. & P., 1900-01, p.99 (yearly averages, 1857-1900).

Melbourne: 1845-55, see sources to Table XXIV.
1860-90, periodical (generally monthly) reports on freight published in the Argus by shipping agents and/or colonial wool brokers.
With the exception of 1860, for which October is the only quotation, the figures which have been selected for 1860-90 are the averages of the months in which the greatest part of the clip was exported.

vessel. Their popularity spread rapidly, however, and seven years later they carried nearly half the exports[1]. Yet the rates were consistently higher than by sailing ship. The reason for the preference was that the saving in time which steam transport meant was the major consideration. Speedier ocean carriage, the shorter Suez route which steamers could use, and improved internal transport enabled an increasing proportion of the clip to reach the January and even, by the late 'eighties the November series of sales in London. This meant a corresponding reduction in the length of time for which export credit was required and consequently in the interest which was paid.

Insurance had to be provided to cover marine risks in transit to England and fire risk while in the London warehouses. Information regarding these rates is not readily available. Such evidence as there is, however, points to a consistent lowering of the premium on marine insurance throughout the century. Isolated quotations from the period 1843 to 1874, shown in Table XXVIII, display a fall of over 40%. The improved efficiency and safety of ocean transport and the competition between English and colonial insurance companies, particularly after the late 'seventies, probably meant a similar gradual reduction in the rest of the period. Fire insurance was a very minor item. Neil Black, in 1848 was paying about 5/- per £100; in 1874 the

(1) In the period 1/7/1884 to 24/1/1885 the proportion of wool exports shipped from the different colonies in steam vessels was:

N.S.W.	Victoria	S.A.	Tas.	W.A.	Q'ld.	Australia
54%	43%	43%	nil	12%	97%	46%

(Calculated from figures presented in R. Goldsborough & Co.'s monthly wool report, Argus, 28/1/1885.)

rate was 1/4 per £100[1].

Table XXVIII

Premium on marine insurance of wool to London, 1843-74 [2]

Date	Premium per £100	Date	Premium per £100
	shillings		shillings
Sept. 1843	60	Apr. 1864	35
Feb. 1848	50	Jan. 1871	35 (a)
May 1851	40	1874	35
Aug. 1855	60		

(a) Plus 20/-% loading, during the war.

The strictly marketing functions of the main agents employed to arrange the sale of the wool in London - the consigning and importing agents - were charged to the growers in the form of the gross commission payable to the consignees. We have already noted[3] the general characteristics of the pricing policy of this group. The average gross commission fell from 2½% of the gross realisation in the thirty years preceding the early 'seventies to 1½-2%. Similarly the commission payable to the English selling broker stood steady at 1% from the 'twenties to the 'seventies when it fell to ½%. Generally this charge was additional to the gross importer's commission. Some consignees sometimes also charged the grower for effecting marine and fire insurance and for paying freight charges for them. Where this happened the charges were small

(1) Black Papers, Gladstone & Sargeantson - Black, account sale dated 25/8/1848; Renard Bros. & Co., op. cit., p.14.

(2) Sources: 1843-55, Black Papers, account sales of various dates;
1864, 1871, The Journal of Commerce, 28/4/1864 and 12/1/1871;
1874, Renard Bros. & Co., loc.cit.

(3) See above, pp.178-181.

and probably quite variable[1]. If the colonial consigning agents paid these items for the grower the scale of their charges for the services were governed by the regulations of the Chambers of Commerce. In 1856 the Melbourne Chamber sanctioned charges of 2½% on freight paid at the port of departure; ½% on the value assured was allowed in Melbourne and ¼% in Adelaide for effecting marine insurance[2].

The London selling brokers' charge was 1% between the 'twenties and the time it was reduced to ½% early in the 'seventies. To this the brokers also added further charges of 4d per bale to cover sales expenses - the costs of printing the catalogues, advertising the sales etc. This charge did not vary throughout the century.

Warehousing and the associated services formed a substantial item in the sellers' costs. On 94 bales of wool sent to the sales in 1843 and grossing £1253 Neil Black paid just over £16 for services itemised on his account sales[3] as dock and town dues, customs entry, cartage and porterage, lotting and showing, taring and making up, re-weighing and warehouse rent. By the 'sixties these charges had been brought together into one

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(1) The only specific figure I have seen attached to this service is the ½% of the sum insured mentioned by Sir Daniel Cooper in his letter in the London Times (16/3/1871) reprinted in the Argus, 13/5/1871. Brodribb (Results of Inquiries..., p.35) refers to the alternative practice of rebating the agent 15% of the premium of a policy on which no claim was made.

(2) For the Melbourne scale see, e.g., The Journal of Commerce of Victoria, 9/1/1858; for Adelaide, the South Australian Advertiser, 1/12/1860.

(3) Black Papers, Account sales from Gladstone & Sargeantson, 29/9/1843.

"consolidated warehouse charge"[1] and formed a considerably heavier burden than they had in the 'forties. Instead of the 3/5 Black had paid, 4/2 to 5/6 per bale was charged, and instead of forming about 6% of selling costs it formed nearer 12%[2].

Table XXIX

Warehouse rates charged by Messrs. Browne & Eagle, 1868-89[3]

Date	Consolidated rates charged on bales weighing: 1 cwt.0 qr. to 1 cwt.2 qr.	1 cwt.2 qr. to 3 cwt.2 qr.	3 cwt.2 qr. to 5 cwt.0 qr.	5 cwt.0 qr. to 7 cwt.2 qr.
	s.d.	s.d.	s.d.	s.d.
31/12/1867	3/0	4/2	5/6	6/9
1/ 1/1868	3/8	5/0	6/6	8/0
15/ 2/1870	3/3	4/6	6/0	7/6
28/11/1871	3/8	4/2	5/6	7/0
24/ 7/1872	3/8	5/0	6/6	8/0
29/ 9/1873	2/6	4/0	5/0	6/0
1/ 1/1877	2/6	3/6	4/3	5/6
1/ 5/1882	2/6	3/5	4/3	5/5
1/10/1889	3/0	4/0	5/0	6/5

Sensitive to changes in wage rates and other operating costs the warehousemen changed their quotations with a frequency which was not common in most other branches of the trade. The rates charged by Browne & Eagle, which are the same as those of the

(1) The London & St. Katherine Docks Co.'s scale of charges published on the 15th February, 1870, include in the consolidated charge the following services - landing, wharfage, carriage to warehouse, housing, 12 weeks rent, mending, weighing, sampling, supplying documents, taring, piling, transfer of bales to showroom, marking, showing, filling in loose wool, re-weighing, re-mending, housing bales for delivery, and delivery by land.

(2) The second set of figures are taken from the accounts of the Australian Agricultural Co. relating to its clip of 1868. See below, Table XXX, p. 315.

(3) Source: Broadsheets setting out the charges, published by the firm at regular intervals, copies of which have been retained by it. I am obliged to the present company for the opportunity to examine them.

other warehousemen[1], illustrate these fluctuations and indicate the slight downward trend which occurred between the end of the 'sixties and the end of the 'eighties (Table XXIX). Any bales warehoused for more than the 12 weeks allowed for in the consolidated rate were charged rent at the rate of ¾d., 1d., 1½d., and 2d. for each excess week according to their size. This did not change between 1867 and 1889.

In addition to all these narrowly selling expenses the growers' costs should include actual or imputed interest charges. Actual interest payments were made when growers took export advances from their consigning agents or when the agents or consignees made disbursments (freight or insurance) for them before they were in funds from the realisation. The rates were governed in the first instance by current short term bank interest rates in the colonies and the discount on commercial paper drawn on England (the method used by some agents to recover their cash outlay), and in the second instance solely by the short term interest rates in the colonies or England. It is most probable that a fairly stable margin separated the two sets of rates. The colonial agents could also make a charge for making the advance at all. In 1860 the Adelaide Chamber of Commerce set at 2½% the commission which its members might take

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(1) Though nominally the rates differed the different warehousemen offered discounts to their customers which brought them all to the same level. In 1877, for example, the London & St. Katherine Docks quoted rates of 3/8, 5/0, 6/3, 8/0 for the four sizes of bales mentioned in the Table; but they were subject to a discount of 20% and a further allowance of 15% of the net sum.

for endorsing a bill or for making an advance on produce which was to be shipped. It made the further stipulation that "when an account is unliquidated at the end of the year the balance is to be charged as a fresh advance, subject to a commission of 5%"(1).

Where a grower did not take an advance on his realisation the expenses of freight, insurance etc. were still subject to actual or imputed interest costs. Contemporary commercial statements assumed, in fact, that an allowance would be made for it(2). Once the colonial auction system had acquired some stature and became a real alternative to the London sales then it was also reasonable to impute the interest costs for the greater length of time taken for proceeds to be received from a London than from a colonial realisation.

Including the financial charges these costs took a substantial share of the growers' gross income. With set costs like freight and warehousing bulking as largely as they did it is hardly surprising that, when wool incomes fell so precipitately at the end of the 'sixties, there should have been an outcry against the "twenty per cent said to be paid in the shape of discount, commission and agents' charges"(3).

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(1) South Australian Advertiser, 1/12/1860. This was an obviously fertile field for unscrupulous lenders and it led to many claims of exploitation; see above, p.196, n.1.

(2) E.G., Gustave Ebell's comparison of pro forma account sales from the Berlin and London auctions in Brodribb, Results of Inquiries...., pp.29-30; also S. Smith, op. cit., p.40.

(3) Argus, 6/2/1869, leader.

c. Selling in the colonies.

The two major costs borne by growers who disposed of their clips in the local markets in Sydney, Melbourne or Adelaide were the selling broker's commission and the charge for receiving, weighing, warehousing and showing, known simply as the receiving charge.

These costs varied between the different markets. The Melbourne selling commission seems to have been stable at 1½%. This at least is the rate mentioned in the four specific quotations which have been found(1). The Sydney quotation in 1864, the earliest reference which has been located, was 2½% which was reduced to 2% in 1906(2). In 1858 the Adelaide Chamber of Commerce set the commission on the sale of produce at auction or through a broker at 2½ to 5% "depending on circumstances"(3). In Melbourne the receiving charge remained stable at ⅛d. per lb. from 1856 to 1889(4), and there is no

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(1) The sources are: R. Goldsbrough & Co., Unbound Correspondence, Goldsbrough - T.J. Gibson, 12/1/1863, duplicate invoices to R. Hogarth (31/10/1881) and M.D. Synnot Bros. (24/10/1881); Royal Commission on the Tariff, Report and Minutes of Evidence, Proceedings of the Victorian Legislative Assembly, 1883, Vol.4, question 23, 879; manuscript manifesto prefacing the Victorian Wool Buyers' Association Minutes. It has not been possible to calculate a rate from the commission revenue noted in R. Goldsbrough & Co. Ltd., Balance Books, "Analysis of Profit and Loss" because the value of the wool sold is unknown.

(2) E. Greville (ed.), op. cit., p.563; also advertisement, Harrison, Jones & Devlin Ltd., in Australian Country Life, Vol. 1, No. 1, (April, 1906).

(3) South Australian Advertiser, 1/12/1860.

(4) This was the rate in 1863, 1881, 1883, and 1889 (see above, n.1).

indication that it was changed in the remainder of the century. No data have been located concerning the rates in Sydney and Adelaide.

In addition to these charges provision had to be made against fire risks in the warehouse - probably at a nominal rate like 2/6 per £100. Growers who shipped their clips to Melbourne from other colonies could also be charged for lighterage and cartage from the wharves(1). Inland insurance should also be added to the costs of all growers, whether selling in the colonies or in London. The scant indications which exist point to a premium of about £1% for wool sent from inland New South Wales and equivalent regions(2).

d. Marketing costs and net realisations.

In the present state of our statistical knowledge it is not possible to construct tables showing the gross income from wool received by Australian pastoralists, the parts of

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(1) R. Goldsborough & Co. Ltd. (Balance Books, "Analysis of Profit and Loss") entered as net receipts sums for lighterage, cartage and insurance, all of them very small. These entries seem to be profits made by the firm as a result either of charging growers a higher rate for lighterage than it cost the firm, or by the use of the firm's equipment in carting wool from the wharves (cartage from the railway station was included in the receiving charge) and as commissions or charges on effecting inland and fire insurance.

(2) Royal Commission to enquire into the conditions of the Crown Tenants in the Western Division of New South Wales, Report and Minutes of Evidence, N.S.W. V. & P.,1901, Vol. 4, question 12,919 indicates that insurance on wool carried down the Darling system was about £1 per ton in 1900. This was slightly less than £1%. Accounts held by Goldsborough, Mort & Co. Ltd. show that inland insurance covering the journey from Netley station in the extreme south-west of N.S.W. to Melbourne was £1% in 1897.

that income paid to Australian and overseas concerns as marketing costs or the resultant net incomes which the pastoralists received on the farm or free at the main ports of export or sale. We have neither adequate price and quantity information for accurate gross incomes nor complete figures for the marketing costs.

We can gain some idea of the general relation of marketing costs to gross proceeds, however, by comparing the expenses and receipts relating to the clips of the Australian Agricultural Co. which have been preserved in detail. Table XXX presents, in pence per lb. of wool sold, the costs involved in selling the Company's scoured wool in London between 1865 and 1884, and indicates the ratio of costs to price. The same details are presented in Table XXXI in respect of greasy wool between 1876 and 1899.

It must be noticed at the outset that this company did not pay an importer's commission for the consignee's functions were exercised by its own head office in London. This was a situation which often arose in the case of corporate producers possessing a London office. Moreover, shipping on their own account many of these concerns, including the A.A.Co., escaped the necessity of paying a commission to a consigning agent. Consequently, to the total costs actually paid by the A.A.Co. must be added the normal gross commission paid to the consignee.

Table XXX

Marketing charges on scoured wool paid in England by the Australian Agricultural Company, 1865-84, in pence per lb. sold[1].

Year of clip	Gross Price	Costs (see legend below)							Costs as % of gross price(a	
		I	II	III	IV	V	VI	VII	VIII	IX
		d. per lb.							%	%
1865	23.15	0.59	0.30	0.57	0.15	0.01	0.23	1.85	7.99	10.49
1866				N.A.(b)						
1867	18.89	0.34	0.03	1.03	0.22	0.01	0.19	1.82	9.70	12.20
1868	13.78	0.46	0.03	0.81	0.20	0.01	0.14	1.65	11.96	14.46
1869				N.A.						
1870	24.60	0.61	0.03	0.78	0.21	0.01	0.12	1.77	7.20	9.70
1871	25.58	0.61	0.03	0.86	0.15	0.01	0.13	1.80	6.99	8.99
1872	24.00	0.57	0.03	0.79	0.18	0.01	0.12	1.70	7.10	9.10
1873	24.31	0.57	0.03	0.79	0.14	0.01	0.12	1.66	6.83	8.33
1874	24.04	0.57	0.02	0.77	0.14	0.01	0.12	1.64	6.81	8.31
1875	20.86	0.55	0.03	0.54	0.15	0.01	0.10	1.38	6.62	8.12
1876	20.58	0.55	0.03	0.57	0.16	0.01	0.10	1.43	6.93	8.43
1877	24.13	0.55	0.03	0.67	0.15	0.01	0.12	1.53	6.35	7.85
1878	16.33	0.50	0.03	0.66	0.14	0.01	0.08	1.43	8.74	10.24
1879	24.72	0.54	0.03	0.67	0.16	0.01	0.12	1.53	6.19	7.69
1880	20.28	0.55	0.03	0.65	0.15	0.01	0.10	1.50	7.38	8.88
1881	24.09	0.50	0.03	0.78	0.16	0.01	0.12	1.60	6.62	8.12
1882	22.88	0.49	0.03	0.63	0.15	0.01	0.11	1.43	6.23	7.73
1883	19.65	0.35	0.03	0.70	0.17	0.01	0.10	1.35	6.89	8.39
1884	18.53	0.29	0.02	0.67	0.16	0.01	0.09	1.25	6.73	8.23

(a) These percentages have been calculated with data taken to the third decimal point. Sometimes, therefore, the second decimal place will occasionally differ from figures calculated on the basis of the figures in the table.
(b) Available only as overall costs for scoured and greasy wool together.

Legend:
- I Sea insurance
- II Fire insurance
- III Freight
- IV Warehouse charges
- V Sales expenses
- VI Broker's commission
- VII Total costs
- VIII Total costs as % of gross price
- IX As VIII with the addition of importer's commission, taken as 2½% from 1865 to 1870, 2% in 1871 and 1872, and thereafter 1½%.

(1) Source: Australian Agricultural Company, particulars of the clip of each year enclosed with communications in Despatches from London.

Table XXXI

Marketing charges on greasy wool paid in London by the Australian Agricultural Company, 1876-99, in pence per lb. sold (1).

Year of clip	Gross price	Costs (see legend below)							Costs as % of gross price(a)	
		I	II	III	IV	V	VI	VII	VIII	IX
		d. per lb.							%	%
1876	11.73	0.33	0.01	0.77	0.11	0.01	0.06	1.29	10.98	12.48
1877	10.04	0.27	0.02	0.51	0.11	0.01	0.05	0.97	9.62	10.12
1878	7.74	0.28	0.02	0.52	0.11	0.01	0.04	0.97	12.51	14.01
1879	11.18	0.30	0.01	0.54	0.11	0.01	0.06	1.02	9.10	10.60
1880	9.05	0.30	0.01	0.52	0.10	0.01	0.05	0.99	10.88	12.38
1881	11.36	0.26	0.01	0.64	0.11	0.01	0.06	1.09	9.58	11.08
1882	10.73	0.27	0.01	0.51	0.10	0.01	0.05	0.97	8.99	10.49
1883	9.30	0.20	0.01	0.51	0.11	0.01	0.05	0.89	9.56	11.06
1884	8.83	0.16	0.01	0.52	0.12	0.01	0.04	0.87	9.82	11.32
1885(b)	7.23	0.16	0.01	0.35	0.14	0.01	0.03	0.70	9.65	11.15
1886	8.54	0.12	0.01	0.43	0.13	0.01	0.04	0.74	8.70	10.20
1887	8.10	0.12	0.01	0.49	0.12	0.01	0.04	0.79	9.70	11.20
1888	7.93	0.14	0.01	0.39	0.13	0.01	0.04	0.72	9.03	10.53
1889	10.44	0.11	0.01	0.58	0.12	0.01	0.05	0.90	8.58	10.08
1890	9.07	0.08	0.01	0.78	0.14	0.01	0.05	1.07	11.74	13.24
1891	7.53	0.09	0.01	0.62	0.15	0.01	0.04	0.91	12.01	13.51
1892	8.24	0.10	0.01	0.47	0.15	0.01	0.04	0.78	9.47	10.97
1893	7.54	0.07	0.01	0.68	0.15	0.01	0.04	0.95	12.60	14.10
1894	6.58	0.07	0.01	0.54	0.14	0.01	0.03	0.81	12.27	13.77
1895	8.19	0.08	0.01	0.46	0.15	0.01	0.05	0.75	9.15	10.65
1896	7.51	0.06	0.01	0.48	0.14	0.01	0.04	0.74	9.83	11.33
1897	8.46	0.06	0.01	0.47	0.14	0.01	0.04	0.73	8.65	10.15
1898	8.51	0.07	0.01	0.68	0.14	0.01	0.04	0.96	11.29	12.79
1899	12.85	0.10	0.01	0.57	0.15	0.01	0.06	0.90	6.98	8.48

(a) See note (a) to Table XXX.
(b) In this year part of the clip was lost by shipwreck. It was not subject to many of these costs but the insurance claim is included in the gross proceeds and that quantity of wool included in the net weight of wool sold; therefore some of the figures in the table show averages which are too low.

Legend:
- I Sea insurance
- II Fire insurance
- III Freight
- IV Warehouse charges
- V Sales expenses
- VI Broker's commission
- VII Total costs
- VIII Total costs as % of gross price
- IX As VIII with the addition of importer's commission, taken as 1½%.

(1) See above, note to Table XXX.

These tables clearly show the scissored effects of price movements and those marketing costs fixed in cash terms. When realisations fell heavily in 1868, 1878 and 1880, the proportion of costs to proceeds rose sharply. Over short periods when prices were falling, particularly in the early 'nineties, there was a tendency for the same thing to occur.

Over the period as a whole, however, the ratio remained remarkably stable. Freights, in particular, showed a decided tendency to fall and as they formed the major single item this had an important influence in allowing those costs fixed in cash terms - freights, warehousing and sales expenses - to move in the same general direction as wool prices. Insurance rates do not seem to have changed appreciably and broker's commission rates changed only in 1870 when they were reduced, for the A.A.Co. at least[1] from 1% to ½%. Yet because these two charges were based on the value (actual or anticipated) of the wool their relation to proceeds remained the same.

There is a marked difference between the weight with which marketing costs bore on realisation of scoured and greasy wool. It is due, of course, to the disproportionately small reduction in freight charges for greasy wool compared with the large difference in price. This discrepancy did not mean, however, that scoured wool was necessarily the most economical to produce. What it could mean is that if there were other grounds for preferring to produce greasy wool rather than scoured wool,

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(1) The date at which the trade generally adopted the reduced rate is open to some doubt. See above, p.186, n.1.

as there were, this comparison in costs established a definite inducement to sell it in the colonies so long as the price differential between the alternative markets was not too great, for that course alone avoided ocean transport.

The saving in marketing costs, narrowly defined as in Tables XXX and XXXI, was insufficient, by itself, to induce growers to sell in the colonies rather than in London. Inland transport and insurance costs being the same whether the wool was sold or consigned in the main ports the focal point of the comparison is the cost of sale at the local auction. Hypothetical costs in Melbourne, based on a receiving rate of ⅛d. per lb. and a selling commission of 1½%, are presented in Table XXXII. These indicate that because of the saving alone a grower

Table XXXII

Cost of selling wool of different values in Melbourne.

Wool price	Receiving charge		Selling commission		Total	
d. per lb.	d. per lb.	% of price	d. per lb.	% of price	d. per lb.	% of price
6	0.125	2.08	0.090	1.50	0.215	3.58
7	0.125	1.79	0.105	1.50	0.230	3.29
8	0.125	1.56	0.120	1.50	0.245	3.06
9	0.125	1.39	0.135	1.50	0.260	2.89
10	0.125	1.25	0.150	1.50	0.275	2.75
11	0.125	1.15	0.165	1.50	0.290	2.65
12	0.125	1.04	0.180	1.50	0.305	2.54
16	0.125	0.78	0.240	1.50	0.365	2.28
17	0.125	0.74	0.255	1.50	0.380	2.24
18	0.125	0.69	0.270	1.50	0.395	2.19
19	0.125	0.66	0.285	1.50	0.410	2.16
20	0.125	0.63	0.300	1.50	0.425	2.13
21	0.125	0.60	0.315	1.50	0.440	2.10
22	0.125	0.57	0.330	1.50	0.455	2.07

could afford to accept in the colonies no price lower than between about 3% and 9% lower than the London quotation. In other words the price spread between the two markets could not exceed, say, 10% if this saving was the only one the grower made. One estimate at the end of the 'eighties put the spread necessary to provide a profit for a speculative buyer in the colonies at about 25%. This underlines the dependence of the colonial auctions on the operations of manufacturing consumers and distributive middlemen who alone could afford to pay within the 10% which this comparison suggests was necessary. By the 'nineties at the latest the differential had narrowed to this extent.

In fact, this comparison, and the A.A.Co.'s cost returns, exclude all financial costs. To the tables relating to London sales need to be added interest charges at rates varying from 6% to 10% p.a. for a period of at least three months, on advances made to cover the time between the wool's departure from the Australian port to the receipt of the proceeds, together with the various commission charges made by agents in granting and renewing the advances, endorsing bills of exchange etc. This would make a considerable difference to the comparison, for sales in the colonies would require shorter periods of financing and fewer renewals. The price differential which growers would be willing to accept could therefore be extended to closer to 20%. This is in fact about the magnitude of the spread which existed in the late 'seventies and early 'eighties.

2. The prices of Australian wools.

There are no satisfactory series of the prices of Australian wools in the nineteenth century. No single series could, of course, serve all the purposes for which we require this information. As we have already indicated[1] the term "Australian wool" is a misleading one, for Australian output comprised a number of broad types of wool each one of which was subject to its own special conditions of supply and demand and for each of which an appropriate price series could be constructed. Series should be collated for Victorian combing wool, for New South Welsh clothing wool, for New South Welsh combing wool etc., for the crossbred wools from the different colonies and for each of these types in the different states in which they were marketed - greasy, scoured and washed etc. Those series would form the basic information. To obtain an indicator of the interplay of the supply and demand for each variety it would be necessary to construct series of prices of wool on a clean scoured basis. (That would eliminate price variations arising simply from a variation in the amount of foreign matter - grease and burr - sold with the wool.) On the other hand, to examine gross Australian production in relation to price some composite series would be required. Such a series weighted by wool types, would be necessary for any computation of national or export income, while comparative cost and income studies also demand weighted series of varying degrees of complexity.

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(1) Chapter 1, section 1.

Table XXXIII

London prices of selected types of Australian wool, 1846-1900(1)

Year	Australian Greasy Merino. Feb'y prices.	Adelaide Average Greasy. Annual average price.	N.S.W. Average Clothing Fleece. End-of-Year price.	N.S.W. Average Export Valuations Greasy.	N.S.W. Average Export Valuations Scoured and Washed.	Victorian Average Merino Fleece. Annual Average price.	Victorian Average Good Merino Greasy. Annual average price.	Australian Average Medium Crossbred Greasy. Annual average price.
	1	2	3	4	5	6	7	8
	d.per lb.	d.per lb.	d.per lb.	d.per lb.	d.per lb.	d.per lb.	d.per lb.	d.per lb.
1846	-	-	-		-	18	-	-
1847	-	-	-		-	16	-	-
1848	-	5½	-		-	13	-	-
1849	-	7	-		-	16	-	-
1850	-	7½	-		-	17	-	-
1851	-	7½	-		-	17	-	-
1852	-	9	-		-	19½	-	-
1853	-	9½	-		-	20	-	-
1854	-	8¾	-		-	18	-	-
1855	10¼	9¼	-		14.6	19½	-	-
1856	11½	11	-		16.2	23	-	-
1857	12	11½	-		17.9	23	-	-
1858	9¼	11	-		19.9	22½	-	-
1859	12½	11½	-		20.5	23½	-	-
1860	14	12⅝	24		21.0	24⅛	14⅞	-
1861	13	10¾	20½		23.4	22⅛	13⅜	-
1862	11	10⅞	21½		20.5	22	13⅜	-
1863	11½	10⅞	21½		19.9	21⅞	13¼	-
1864	11½	11½	21		21.4	23¼	14¼	-
1865	10½	11⅜	22½		18.3	22⅜	13¾	-
1866	12½	12⅛	20½		18.3	23⅝	14⅜	-
1867	13	10½	17		18.9	21½	12½	-
1868	9½	9⅜	16½		17.5	20	11⅝	-
1869	8½	7¾	15½		14.8	17	9⅜	-

(Continued...)

(1) See over page.

Table XXXIII (Continued)[1].

Year	1	2	3	4	5	6	7	8
1870	9½	7⅞	14	13.8		17	10⅛	-
1871	7½	10⅛	23½	17.3		21¼	12⅜	-
1872	12	12⅜	25	15.9		25¾	15½	-
1873	12½	11¾	22	12.0	18.7	25	15¼	-
1874	11¾	11½	20	11.7	19.1	23½	14⅝	-
1875	11¾	10⅝	19	11.5	19.3	22	13½	-
1876	12½	9⅝	19½	10.1	17.8	20¼	12⅛	-
1877	14	9⅛	18	10.3	17.6	20¼	12⅛	-
1878	10½	9⅛	-	9.9	16.1	20	12	-
1879	10	8½	-	10.5	17.3	18¾	11⅝	-
1880	11½	10⅝	-	10.8	24.0	21½	13½	-
1881	12	9¼	-	10.9	16.9	19½	12	-
1882	12	9	-	10.5	17.2	19¾	12¼	-
1883	12	8½	-	10.6	18.1	19	12⅛	8.8
1884	11	8⅛	-	10.5	18.3	18½	11½	9.5
1885	10	6¾	-	8.9	15.2	16½	10	9.7
1886	8½	6¾	-	8.3	14.1	15½	9¾	9.5
1887	11	7	-	8.4	14.7	15¾	10⅛	9.9
1888	10	7	-	8.2	13.9	15¾	10½	9.5
1889	10½	8¼	-	8.6	14.9	17¼	11½	10.3
1890	11	7½	-	7.0	13.9	16	10¾	10.1
1891	10	6⅞	-	7.4	-	14¾	10	10.1
1892	8½	6	-	7.2	-	13	8¾	9.1
1893	8½	6	-	6.8	-	12¾	8⅝	9.6
1894	7½	5⅝	-	6.0	-	11¾	8	9.0
1895	9½	5⅝	-	6.6	-	13	8⅝	9.0
1896	9	6⅜	-	7.1	-	13	9⅛	9.1
1897	9	6	-	6.8	-	12¼	9¼	8.7
1898	10	6⅝	-	7.3	-	13¼	9¾	7.5
1899	13½	8½	-	10.3	-	17¼	12¼	8.5
1900	15(a)	7⅛	-	-	-	15¾	11½	8.4

(a) September series of sales.

(1) Sources: Column 1: Compilation of Helmuth Schwartze & Co. (Buchanan, Schwartze & Co.). This has been reproduced in part or in entirety in many places. Our source: anon. article "Historical Sketch of the Wool Industry", The Clarion, (Sydney, monthly), 25/5/1901, p.36.
Columns 2 & 6 (1846-1859), 2,6 & 7 (1899 and 1900): Journal of the Royal Statistical Society, various dates.
Columns 2,3,6,7 (1860-1877): A. Sauerbeck, op. cit., p.15.
Columns 2,3,6,7 (1878-1898): F. Hooper, Statistics relating to the City of Bradford and the Woollen and Worsted Trades of the United Kingdom (Bradford, 1899), p.28.
Columns 4,5: Statistical Register of New South Wales, annually. The method of derivation is described in the text.
Column 8: R.J. Thompson, "Wool Prices in Great Britain,1883-1901", Journal of the Royal Statistical Society, Vol.65 (1902), p.508.

The statistics which do exist are confused and are contained in widely scattered sources. In Table XXXIII an attempt is made to bring together examples of the most importan series of prices realised by Australian wools in the London market.

Only two types of consistent series are contained in, or can be derived from, official colonial statistics of the nineteenth century. The main set, and those on which national income analysis has been forced to rely, consist of those price at which exporters valued their shipments at the Customs Houses. They may be derived by dividing the declared value of exports by their volume. New South Welsh average values deduced in this way are presented in Table XXXIII columns 4 and 5. Separate values for greasy and scoured wool can be obtained only from 1873 when the Colonial Statistician first took notice of the state in which the wool was exported; prior to that date the series is simply one of the average declared value of all New South Welsh wool exported by sea irrespective of type. It is evident that "prices" obtained in this way represent the hopes, or at best the formal expectations, of the growers (modified perhaps by the advice of their financiers) rather than actual realisations. Though in periods of relatively stable prices a certain relationship between them and realised prices may be discerned, the frequency with which discrepancies occur reveal the fallibility of the forecasts. (Their correspondence with market values did improve during and after the 'eighties, but simply because a larger proportion of exports consisted of wool already sold in the colonial markets, and

therefore valued in accordance with previously realised, and paid, prices.)

Some colonial statisticians also published average prices realised in London by wool from their own colonies. These were taken from English trade sources, in the form either of annual average prices or average prices obtained at particular London sales series[1]. The value and dependability of the English data which they used varied widely. Some of the series constructed by commercial commentators or more or less informed members of the trade have no value for a study of this nature. The Economist[2], for example, was one of many which presented figures framed in terms of price ranges (with a spread of up to three times the lower value), and while this may be the most honest method of presentation, taking account of quality and other differences, it is the least informative.

The most comprehensive, accurate and useful sets of statistics available to us are those computed from trade records by Helmuth Schwartze & Co. (later Buchanan Schwartze & Co.), wool buying and selling brokers of London, and by A.Sauerbeck. They consist of end-of-year and/or annual average London prices of a large number of wool types from various countries. Some of them relating to Sydney, Adelaide and Port Phillip merino are

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(1) E.g. W.&P., 1900-01, p.592, gives part of a series extending from 1880 showing the average prices realised for N.S.W. greasy wool at each of the London sales series.

(2) The "Commercial History Supplements" to The Economist give prices for a number of types of Australian wool in this fashion from at least 1845.

included in Table XXXIII (columns 2, 3, 6 and 7)[1].

Only one series purports to represent the price of "Australian greasy merino"[2]: a trade estimate presumably based on the gross realisations of all greasy colonial wool entered in the books of one of the selling brokers. Average prices of such a nature, realised at the February series of sal in London, are recorded in Table XXXIII (Column 1).

It is clear that the utility of those series is limited. All of them refer only to specific types of wool. Those referring to specific varieties from specific colonies ar eminently suited for a discussion of those wools. But without supplementary information, which is not obtainable, they offer an imperfect basis for wider discussions or for income calculations. Even the more ambitiously phrased "Australian greasy wool" price series contains defects which make it difficult to use it for many purposes. It is, firstly, based on an unknown method of computation. How wool from different colonies was weighted and how the average value was obtained is not revealed. This second point applies equally, of course, to the series relating to narrower wool types and probably does not matter as

(1) A. Sauerbeck, op. cit., p.15, gives, in addition to these, annual average and end-of-year prices of two types of Cape wool, average greasy Buenos Ayres wool and English Lincoln hoggett and wether wool.

(2) W.H. Chard (op. cit., p.24) presents a chart of annual average prices of "ordinary 60's topmaking wool, clean scoured basis". There is no indication of how the basic price series was formed nor of how a clean equivalent was obtained. An unweighted average of the indices of Sauerbeck's prices for South Australian greasy merino and Port Phillip fleece merino is offered by the Bureau of Agricultural Economics (op. cit., Table 51) as an indication of the movements in "Australian merino" prices from 1846 to 1947.

far as movements in supply and demand are concerned for the direction and magnitude of the price movements, not the exactly accurate average determination, are the important things here. The fact that quotations can be obtained quarterly, or even more frequently on occasion, makes this series very useful for that purpose. The uncertainty makes the series suspect, however, when used in income analysis. It is, in any case, an incomplete guide for it refers only to greasy wool and excludes entirely washed and scoured wool which, until the 'seventies, formed the greater proportion of exports. Moreover, all these series suffer one fundamental defect which unsuits them for income calculations or analysis. They refer only to wool sold in London (even the average export valuations are predominantly phrased on that assumption) and they take no account of wool offered and sold in the colonies.

Colonial price statistics themselves are wholly unsatisfactory and inadequate before the end of the century[1]. Series of price ranges of varying lengths may be culled from various official sources[2] or constructed from selling brokers'

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(1) At the turn of the century Dalgety & Co. Ltd. commenced publishing annual series of adequate accuracy.

(2) E.g. W.&P., 1894, p.341, gives in the form of ranges the prices obtained in Sydney by four qualities of each of eight wool types; the first season so treated is 1893/4. Other short series of colonial quotations are occasionally given - e.g. Adelaide prices of greasy and scoured merino, 1861-7, in Appendix M of the Report and Minutes of Evidence of the Royal Commission to enquire into the state of runs suffering from drought (South Australian Parliamentary Papers, 1867, paper 14).

published reports of sales[1]. The major series of seasonal average prices collected for specific wool types is that made by the Victorian Statistician for the Melbourne market. This i reproduced in Table XXXIV. Even though these prices are based

Table XXXIV

Season average wool prices at the Melbourne sales.

1884/5-1893/4 [2].

Season	Greasy merino	Greasy cross-bred	Fleece and washed wool	Scoured wool
	d. per lb.	d. per lb.	d. per lb.	d. per lb.
1884/5	10½	9	20	19
1885/6	8½	8	16	15
1886/7	10½	9	17	18
1887/8	9½	8	15½	16
1888/9	10½	10	18	17½
1889/90	11½	11	18½	19½
1890/1	10	9	15	16½
1891/2	9	8¾	13½	15
1892/3	8¾	8½	13	14½
1893/4	8½	8¾	13	14½

on the calculations of the leading Melbourne wool selling brokers their accuracy is open to some doubt. Preliminary investigation indicates that they unduly inflate the actual prices realised. In general terms this belief seems to be

(1) Colonial newspapers and commercial journals often carried current market quotations supplied to them by the brokers. They took the form of price ranges and often differed from broker to broker. On 17/1/1883, for example, both R. Goldsborough & Co. and the Australasian Mortgage & Agency Co. published reports in The Journal of Commerce and The Australian Trade Review respectively. Their quotations for average good greasy merino wool were 10½-12d and 9-10½d respectively, and for fine cross-bred wool 11-12½d and 10½-12d.

(2) Source: Victorian Year Book, 1894.

justified by a comparison of relevant prices realised in London and Melbourne. If we regard the wool sold in Melbourne during, for example, 1884/5 as belonging to the same clip as wool sold in London in 1885 (an assumption only very slightly falsified by the ability to ship new season's wool by steamer to arrive in London before the end of the year) then the comparison shown in Table XXXV is startling: in only two of the ten years

Table XXXV

Comparison of the reported prices of some Victorian wools in London and Melbourne, 1885-1894.

Year (a)	Greasy merino Melbourne price (b)	Greasy merino London price (c)	Difference between Melbourne & London prices	Fleece and washed merino Melbourne price (b)	Fleece and washed merino London price (d)	Difference between Melbourne & London prices
	d. per lb.	d. per lb.	d. per lb.	d. per lb.	d. per lb.	d. per lb.
1885	10½	10	+ ½	20	16½	+ 3½
1886	8½	9¾	- 1¼	16	15½	+ ½
1887	10½	10⅛	+ ⅜	17	15¾	+ 1¼
1888	9½	10¼	- ¾	15½	15¾	- ¼
1889	10½	11½	- 1	18	17¼	+ ¾
1890	11½	10¾	+ ¾	18½	16	+ 2½
1891	10	10	0	15	14¾	+ ¼
1892	9	8¾	+ ¼	13½	13	+ ½
1893	8¾	8⅝	+ ⅛	13	12¾	- ¼
1894	8½	8	+ ½	13	11¾	+ 1¼

(a) Equivalent to season 1884/5
(b) From Table XXXIV
(c) From Table XXXIII, column 7.
(d) From Table XXXIII, column 6

between 1885 and 1894 was the Melbourne price for "Fleece and washed wool" below that quoted in London (1888 and 1893); in seven of those years, including the first five years of the

'nineties, Melbourne greasy wool prices exceeded, or equalled, London prices.

The growth of direct purchases in Australia by English Continental and American dealers and consumers meant, of course that Colonial prices tended to be the f.o.b. equivalent of London prices. It was possible, under those circumstances, for colonial prices to exceed this equivalent in the short run; it was possible for them to exceed London equivalents by so much that they topped the actual quotations there; it was even possible for them to have done this for a season or more as a result of the impact of market rigidities and special local conditions of supply and demand. It is quite inconceivable that it should have continued for nearly a decade.

It might be suspected that the differences arise from imprecise definitions. This is unlikely. The London greasy prices might be expected to be higher than Melbourne because they refer to "average good merino" while the Victorian figures allegedly include all greasy merino irrespective of quality; but they are in fact generally lower. London "average fleece" prices might be expected to be lower than the "Fleece and washed" because fleece wool realised lower prices than either washed or scoured, but once again the specification of "average" probably nullifies this.

This comparison, of course, merely established that either Melbourne quotations are inflated or London prices are too low. Reference to marked sales catalogues from the Victorian auctions indicates that whatever was true of the

London quotations, the Melbourne ones are certainly too high. A sample of lots sold at the auctions in Melbourne and Geelong reveals an average price of 8.3d., 7.4d., and 8.2d. for greasy merino and of 13.6d., 11.8d., and 13.4d. for scoured merino realised there in 1886/7, 1887/8 and 1888/9 respectively(1). The published prices stand at 10½d., 9½d., and 10½d. for greasy and 17d., 15½d. and 18d. for washed wool. The reason for the vast discrepancy - up to 25% - lies, it is suggested, in the brokers' omission from all their calculations of all wool not sold in the normal sized bales(2) and their tendency, perhaps, to demote to lower priced grades (mainly in the 'eighties to low crossbreds) poor quality and damaged merino wool sold at very low prices(3).

These then, the figures in Tables XXXIII and XXXIV are the basic price data of the colonial wool trade in the nineteenth century. A selection of the more important of them

(1) These samples have been taken on a 1 to 6 basis from marked catalogues of the sales. The average prices are probably accurate to within plus or minus 5% for greasy and 10% for scoured.

(2) Large numbers of "bags", "sacks", "butts" and "fadges" were entered in the brokers' catalogues. Almost without exception these lots realised prices lower than other lots. Replying to an attack made on the Victorian Statistician's method of calculating average Melbourne prices (The Australian Trade Review, 15/3/1882) R. Goldsborough & Co. detailed the prices at which all their bales of greasy wool at a particular sale had been sold and argued that the resulting average price was a true indication of prices at that time. They did not include these under-sized packages in their list.

(3) Many bales of "locks" and of dead and stained wool sold for as little as 1d. per lb. It seems hard to believe that these wools were included, let alone included in their correct category, in calculations which give such high average values.

is shown graphically in Chart II (p. 342). They are subject to two major defects - in their content and accuracy. Some of the series refer to wool types which are readily identified and some to aggregations of unknown types. Some are undoubtedly accurate both in the year-to-year movements they show and as measures of the prices actually paid at auction for those wools, but a number are, and others may be, grossly inaccurate. Their use, moreover, is limited by the paucity of information necessary to supplement them. Combined appropriately in a weighted series representing greasy, scoured, fleece and washed wool of various types sold both in the colonies and in England the more accurate collections could be used for income analysis. Individually, the best of the series reflect movements in the changing relationships between the supply of and demand for particular wool types and are essential to any such study. But we do not know enough, particularly about the composition of Australian output and the state in which the wool was marketed before the 'seventies, to be able to use them in these ways. In other words they are not only frequently unsatisfactory in themselves but, in the absence of adequate supporting statistical collections, they can meet only the most simple of our requirements.

3. Price Movements.

One of those less sophisticated, but extremely important, things we wish to know about prices is how they moved over fairly long periods of time. The defects of our collection do not prevent us doing this for changes in the very long run and in the shorter period of about six to ten years, with which

this section is concerned. The identification of changes over periods of these lengths is not dependent on the absolute accuracy with which the individual quotations in the series record average prices in given years. It requires rather that wide inaccuracies, like those in the Melbourne series, should be of a broadly consistent nature over time and that irregular inaccuracies should be small percentages of the quoted figures. In the best of the collections we have these conditions are fulfilled. Moreover, the limitations imposed by the relevance of most of the series to a single (though broad) wool type, and by the doubtful nature of the more general, composite, series are less important here. The series show divergent movements over very short periods but in the longer run the correspondence between them is so close that we may speak with confidence of movements in the prices of "Australian" wool as a whole.

a. The general course of prices in the long run.

If we inspect the price series plotted, without any adjustment, in Chart II the broad long term movements are immediately apparent.

From 1848[1] to 1866 prices generally rose. The movement was a strong and definite one until 1857-8 and then weakened considerably in the first half of the 'sixties

(1) Sauerbeck's figures (Table XXXIII, columns 2 and 6) show an upturn from 1848. That this was the turning point of a long movement is confirmed by the sets of price ranges presented by A. Hamilton (op. cit., Appendix VII). Dating from 1839, and referring to four qualities of wool from each of the five Australian colonies, Hamilton's collection shows an unmistakable fall from that year to 1848.

appearing, in fact, almost as a plateau[1]. The dating of the downturn from this rise varies slightly. Adelaide greasy merin and Victorian fleece and greasy merino, all of which are annual average prices, all reach a peak in 1866. New South Wales clothing prices, on the other hand, rose only until 1865. The early peak is the product of a different set of supply and particularly of demand conditions.

Equally clear is the general fall in wool prices from at least 1873 to 1894. In contrast to the upward movement in the 'fifties and early 'sixties this fall was remarkably steady and persistent. There was no real check to it, nor even any appreciable change in the rate of fall, until an upward movement was initiated in 1895. The magnitudes of the rise and fall, on the other hand, were surprisingly symmetrical - values in 1848 and 1894 were virtually identical.

It is evident that the division between these two broad movements lay in the second half of the 'sixties and beginning of the 'seventies. It is just here, unfortunately, that the picture of the general movement is confused by short term fluctuations. The short term trough of 1869-70 and the subsequent abnormal recovery of 1871-2 were partially the product of special forces.

From 1868 to 1872 there was a cyclical upswing in British and European economic activity[2] and with it an upswing in the demand for manufactured and raw wool until at

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(1) If the cotton famine associated with the American Civil War is to be connected with any movement in Australian wool prices it is as a force maintaining this plateau in the face of an impending fall.

(2) W.W. Rostow, British Economy in the Nineteenth Century (Oxford, 1948), p.33.

least the early months of 1870. The continued fall in wool prices during 1869 seems to suggest excess supply. To this was added, from the first third of 1870, growing fears about the stability of European peace. Contrary to expectations the Franco-Prussian War did not mean a net reduction in the demand for wool[1] but while prices were maintained, or even advanced fractionally, they remained at a very depressed level. The backlog of civilian demand, a possible reduction of output[2], and the continuation of the cyclical upswing together produced an unprecedented, partly speculative boom in 1871 and 1872.

If full weight is given both to the depth of the trough and to the height of the succeeding peak one may view the overall course of the long movements as falling into two cycles. The first would extend from the trough of 1848 to that of 1869-70 with a peak in 1866; the second from 1869-70 to 1894 with a peak in 1872. If one were to discount the full magnitude of these short term fluctuations, as there is some reason for doing, then the movement of prices appears as a single cycle with troughs in 1848 and 1894 with a plateau of peak prices in the mid-'sixties rather than a single peak year. With our present knowledge both patterns are plausible, but any conclusion must rest on a detailed study of Australian, and

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(1) The almost complete withdrawal of French buyers from the London auctions and the reduction in civilian consumption of wool textiles (which affected the English export industries) was "more than counterbalanced by the exceptional demand for wool suited for blankets, army clothing etc."(Helmuth Schwartze & Co.'s market report of 23/2/1871, reprinted in The Journal of Commerce of Victoria 13/4/1871).

(2) Cf. Sauerbeck, op. cit., p.7; also R. Goldsbrough & Co.'s market report, The Journal of Commerce of Victoria, 6/4/1871.

probably of world, wool production - a task which is beyond the scope of this study.

A definite upswing in prices commenced in 1895. Although our series do not show it this continued until the end of the post-war inflation in 1920[1].

Within the general pattern of price movements which we have been discussing there were, of course, variations. It was these differences in the rates of change which accounted, at least partly, for the changing composition of Australian flocks[2]. As a result of the changed requirements of the British worsted industry after the end of the 'sixties[3] and of the differential rates of growth of the European worsted and woollen industries, for example, the prices of Victorian combing wools tended to fall less rapidly than those of clothing merino despite the rapid growth of the former. For the relatively short period from 1860 to 1877 our series illustrates this divergence (Table XXXIII, columns 3 and 6). More striking, perhaps, is the contrast between prices for merino and crossbred wools in the twenty years following the late 'seventies. In Chart I are plotted the index numbers of the prices for Victorian greasy merino and average medium Australian crossbred greasy from 1883 to 1900. The comparison shows clearly that the crossbred wool was not subject to the same general pressures

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(1) The general decline in prices from this peak until 1931 completes a long cycle commencing in 1895. The existence of this 37-year swing lends at least moral support to the interpretation of our nineteenth century data as a single long cycle.

(2) See above, pp.8-10, 12-14.

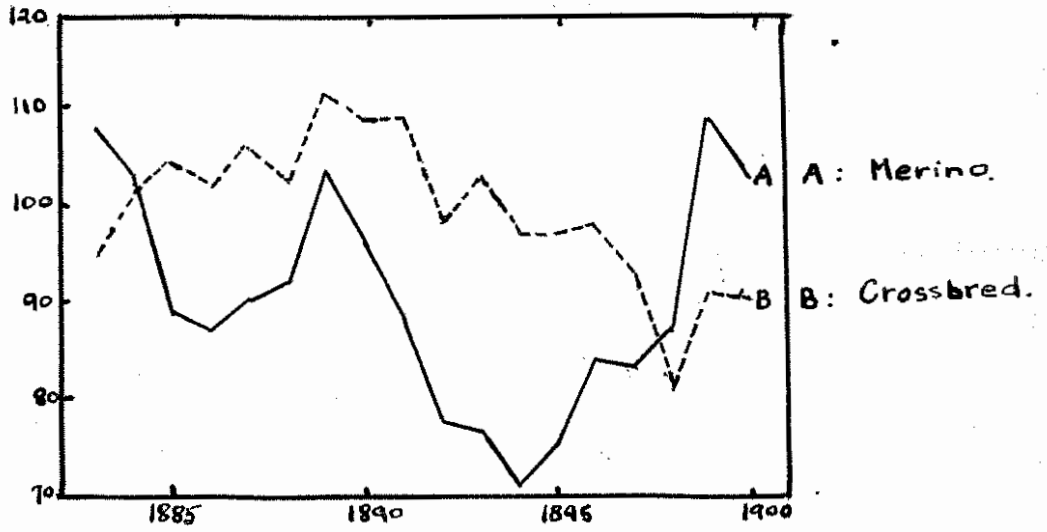
(3) See above, pp.45-46.

during the period as merino. With this must be associated the relative expansion of crossbred flocks from the 'seventies[1]. Another major divergence, which our series cannot illustrate, diminished the gap between colonial and London prices, which was an essential condition of the re-location of the market.

Chart I.

Australian merino and crossbred prices in London, 1883-1900[2].

Base: Average 1883-5 = 100.



b. Shorter term price movements.

In view of the unsatisfactory nature of our data short term movements in the series must be treated with much more caution than the long ones. Minor inaccuracies make the assessment of the magnitude of movement much less certain, while the irregularity with which they may occur means that turning points may be displaced. Nevertheless our collections display

(1) See above, p.14 and Table I (p.9).
(2) Source: Index numbers of columns 7 and 8, Table XXXIII.

sufficient correspondence in the main features to warrant some preliminary sketchwork.

Prices fluctuated cyclically around the long term patterns we have described. Dating them from trough to trough these cycles ran from 1848 to 1854, 1854 to 1858, 1858 to 1862 or 1863 (depending on the series taken), 1862 or 1863 to 1869-70, 1869-70 to 1879, 1879 to 1886, and 1886 to 1894. The peaks of these cycles fell in 1853, 1857, 1860, 1866, 1872, 1880 and 1889 respectively. There is also an uncompleted cycle which dates from the trough of 1894 through the peaks of 1899.

One obvious source of these movements lies in the cyclical fluctuations of incomes in the consuming countries. Short term cyclical troughs in Great Britain, which remained the greatest single consumer of Australian wool, throughout the nineteenth century, occurred in 1848, 1855, 1858, 1862, 1868, 1879, 1886 and 1894[1]. Five of the troughs in wool prices coincide with these dates. The other three diverged slightly. That of the early 'fifties led the trough in British economic activity by a year; that of the early 'sixties lagged slightly after it; and that of the late 'sixties occurred well after the British trough. These are not serious differences and, given

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(1) W.W. Rostow, British Economy of the Nineteenth Century (Oxford, 1948), p.33.

the existence of pressures specific to the wool trade, are probably to be expected.

With the exception of 1857, 1860 and 1866 the peaks in the series of wool prices showed, however, a persistent tendency to precede those in consumers' incomes. That of 1880 led the British trade cycle peak by three years, and those of 1853, 1872, 1889 and 1899 by a year. This is a far more significant discrepancy. The 1880 peak should probably be treated as a purely accidental rise attributable to very short term forces, and the cyclical peak should probably be moved forward to 1881 or 1882. This adjustment does not, however, overcome the basic problem; the other peaks are not the produc of accidental timing. They cannot be explained in terms of the growing diversity of cyclical forces to which the demand for wool became subject as the consumption of Australian wool in France, Belgium and Germany expanded after 1870. Short term cyclical variations in incomes in those countries were not sufficiently divergent from those in Britain to produce these peaks, nor were the peaks the product of any sort of averaging of movements in the main consuming countries. The highly unstable nature of purchases on American account and short term deficiencies in supply due to drought in Australia, similarly, are obvious hypotheses which do not meet the facts.

It is clear, then, that while the existence and the broad timing of short term cycles in wool prices was due to the fluctuations in consumers' incomes, from 1872 they exerted more influence in the determination of the exact timing of the

troughs than of the peaks. This suggests that there was some structural rigidity in wool textile manufacturing, or some lagged response between supply and demand which, after that date, inhibited the advance of wool prices after the initial movement of recovery from the trough.

That is probably also associated with the overriding influence of the long term movements, which imparted distinct characteristics to the nature of the short term cycles.

This influence may be discerned firstly in the changing duration of the short term cycles. Before 1862 they were fairly short, covering six, four and four years for the three cycles. Subsequently they lengthened to between seven and ten years. This contrast between short cycles before the mid-'sixties and longer ones after then is also to be found in the British trade cycle, and is normally connected with rising and falling long term movements. Similarly, downswing appears only as a very brief interruption to the general upward movement. Between 1872 and 1889, on the other hand, the peaks are weak and the recovery from the troughs uncertain and often feeble. Only in the decade from 1862 to 1872 is the cyclical movement firmly established in all its phases.

The movement of crossbred wool prices provides a striking contrast with these patterns. During the period for which we have statistical data this series was subject to very special demand conditions which paid but scant regard to income fluctuations.

c. Conclusion.

Two features emerge very clearly from this description of wool price movements. First, the long term movements are very strongly imprinted on the series. Up to 1860 the upward movement, and from 1872 the downward movement, are remarkably steady. The only period in which long term movement could be absent is the 'sixties. Second, except in the 'sixtie short term cyclical fluctuations make very little impression or these long term changes. Short term troughs in the period before 1862 were mere checks to the general rise, and short term recoveries and peaks form almost minor disturbances to the general fall after 1872.

The implications of this are important. These patterns mean that apart altogether from questions of inelastic ity deriving from technical considerations, the short term fluctuations in prices were probably relatively unimportant in the determination of wool producers' output policy. This must be qualified to the extent that given price changes expressed in units of currency were of increasing proportional importance as the general level of prices fell; and to the extent that brief periods of recovery and weak peaks provided a breathing space in between price declines in the period after 1872 and encouraged optimistic expectations about the future course of prices. They also imply that the crisis of the 'nineties was not so much the product of a short term cyclical fall in prices as it was of the conjunction of that with the trough of a long term movement.

At least until the mid-'eighties the absolute

profitability of wool production in Australia was sufficiently great, and the optimism of the trade sufficiently well maintained, to induce a continual expansion of output and a high number of new entrants into the industry despite the price movements. Though the attractiveness of the industry as an avenue of investment may have been falling, it retained its superiority over all other colonial activities until the 'nineties mainly because of the increasingly capitalised and highly productive nature of wool production. In terms of the content of this study it is important to note that it was also partly maintained until the beginning of the short term fall in prices in the 'nineties, because marketing costs fell equally, or possibly more than, prices. As we saw above the costs of selling wool in London bore a remarkably steady proportion to realisations in the whole period from the late 'sixties to the 'nineties (Tables XXX and XXXI), while the move to selling wool in the colonies rather than in London particularly in the 'nineties may have been partly motivated by a desire to reduce marketing costs further in an effort to offset the effect of the falling prices.

It is important, finally, to draw attention once again to the deviant behaviour of crossbred wool prices. In both its (apparent) long term movements and its shorter term fluctuations this series emphasises that, while valuable and valid generalisations can be made about the course of "wool prices", this is essentially a process of lumping together a number of distinct commodities.

Chart II.

London prices of selected Australian wools, 1846-1900.

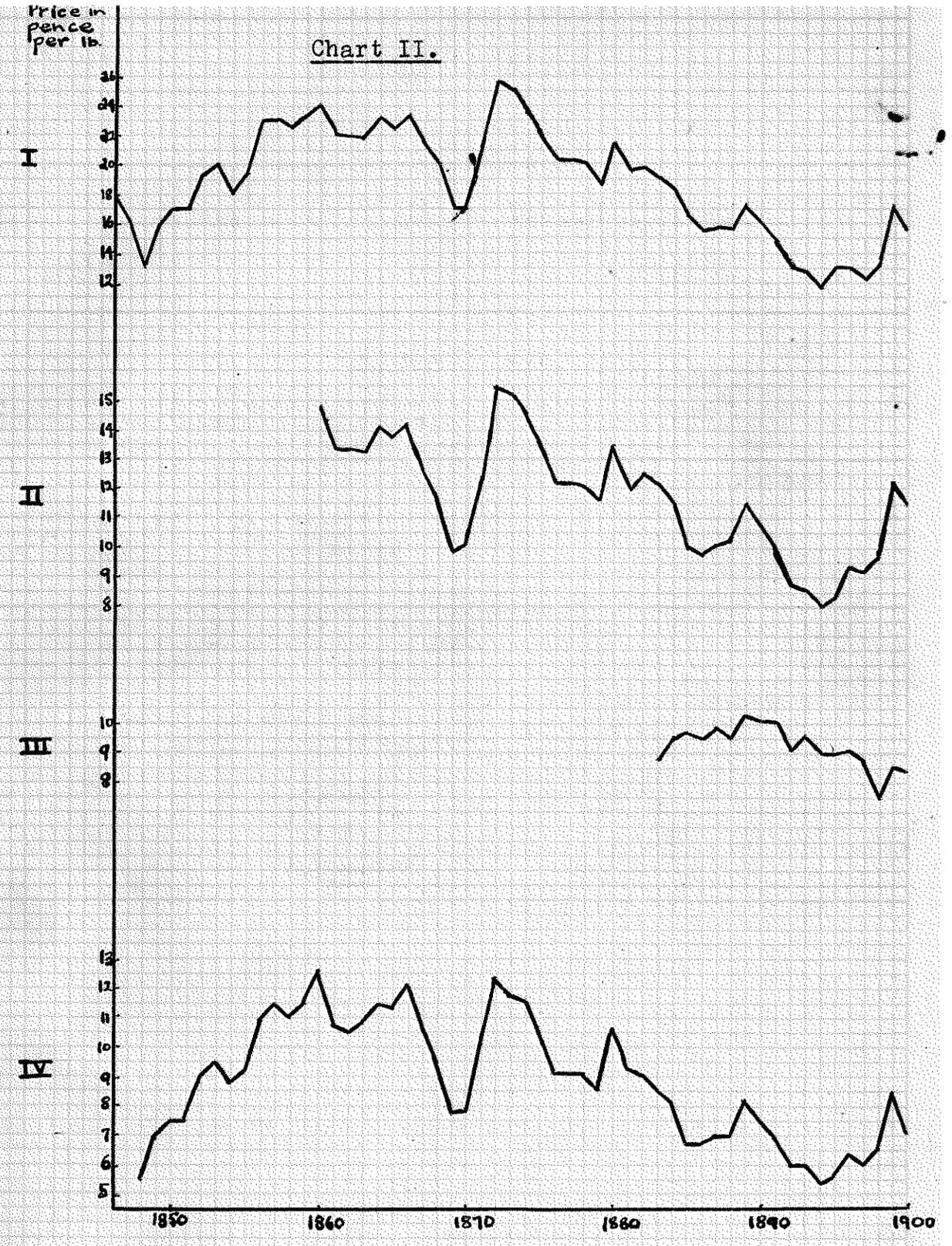
Sources:

I. Victorian average Merino fleece, annual average price: Table XXXIII, column 6.

II. Victorian average good Merino greasy, annual average price: Table XXXIII, column 7.

III. Australian average medium crossbred, greasy, annual average price: Table XXXIII, column 8.

IV. Adelaide average Merino greasy, annual average price: Table XXXIII, column 2



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