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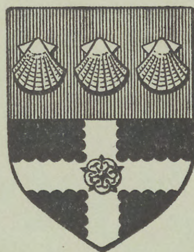
Marketing of farm products



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CONTRACTS FOR FARM PRODUCTS:
AN EXAMINATION OF THEIR USE IN S.E. ENGLAND

by

J. S. Marsh

Miscellaneous Studies No. 39

September, 1965

7/6

With the Compliments of

Professor R. H. Tuck

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PREFACE

This study of contracts to sell farm products has been made at a time in which increasing attention has been focused upon the whole subject of contract farming. It deals with a small part of the changing relationship between farmers and their customers but it is hoped that it will be of interest to all who are involved in the practice or planning of agriculture.

One disclaimer must be made. In some quarters there is a tendency to regard contract farming as a panacea for the problems facing the agricultural industry. This author does not share such optimism. The evidence recorded here suggests that although contracts may remove some problems, they may create others and be irrelevant to many more. Contracts have their role, together with many other devices, in assisting the complex and subtle adjustments which are needed if the agricultural industry is to become more competitive. They do not offer a comprehensive solution.

This study has involved the voluntary co-operation of many people. Such co-operation has required the expenditure of time and thought which might well have been devoted to more profitable or more entertaining activities. The author is very grateful to all who took part and regrets that individual acknowledgement is not possible. Two groups of helpers may be distinguished, first the farmers and second those firms involved in marketing farm products.

In ancient times kings used to kill those who brought bad tidings. In recent years economists have often seemed to be bearers of ill news to the farming industry. It is then all the more gratifying, to record the very kind way in which almost every farmer approached provided information both by post and by personal interview. It is hoped that, for farmers, this study will help to dispel some of the terrors and expose some of the possibilities of contract trading.

Information and advice was also provided by agricultural merchants, large and small, by wholesalers of farm products, by processing manufacturers and by retail organisations. The readiness of these firms to discuss openly the problems of their trade, their experience of contracts with farmers and their plans for the future, proved invaluable. It became clear that any simplified discussion of contracts as an agreement between two sides whose interests were opposed was misleading. If this study stimulates a greater readiness, by both farmers and their customers, to experiment with methods of contract trading, both may benefit.

Finally the author wishes to record a personal debt to Professor Edgar Thomas for his help. The good things in this study owe much to him, the remainder are the responsibility of the writer himself.

CHAPTER I - INTRODUCTION

Three main considerations gave rise to this study of contract farming. First, was the widespread fear with which many farmers and agricultural commentators regarded the encroachment of big business upon farming. Second, was the desire to identify what factors tended to foster the growth of contract farming, and what to impede it. Third, was the importance of assessing the impact of such developments upon the economy as a whole.

Traditionally agriculture is an industry of small family units. Although work may be arduous and profits exiguous the farmer has been his own master. The concept of integration - the complete control of the farm firm by some outside business - causes a very real fear that this prized independence will be lost. In popular discussion contract farming is usually identified with vertical integration - control by the customer or the supplier who is party to the contract. In fact such an identification confuses the issue. Contract farming is not in any sense integration. The farmer signs a contract because he believes it offers him the best opportunity of making a profit. If control of the farm were to have passed to an outside agency it would be the profit of that concern alone which would be the determinative factor in farm policy. In contract farming the farmer is still free to choose or refuse a contract.

Although it is misguided to use the term integration to describe the relationship between farming and other businesses under contract farming, there is of course a much greater involvement by each party in the needs and capacities of the other. This has been described as vertical co-ordination - a term which avoids some of the misleading overtones of integration. Undoubtedly within the framework of such co-ordination some of the liberties which farmers (and, for that matter, other businessmen) have enjoyed will be lost. The degree of loss depends upon the type of contract signed.

For the purposes of discussion it has been found convenient to identify four main types of contract in this study. These can be listed in ascending order of interference with farmers' traditional liberties :-

1. Forward Sale contracts - arrangements to sell an already harvested crop to a particular buyer at a later (specified) period.
2. Marketing contracts - arrangements covering the sale of a product which is being produced, usually including terms concerning price, quantity, quality, time of delivery, packaging and transport.
3. Production contracts - arrangements which in addition to marketing terms include some restriction upon methods of management (housing, feeding, rotation etc.).
4. Resource providing contracts - arrangements whereby the farmer's customer supplies some of the input items free of charge - taking payment out of the final price of the product; this type of contract includes terms dealing with production and marketing.

Contracts of the resource providing type are, sometimes, regarded as a form of creeping take-over. The farmer, it is argued, may become more and more involved with the customer, dependent upon him for raw materials and bound to him for a market. Ultimately it may become impossible for him to escape from the contract because to do so would involve bankruptcy. At this point integration in the true sense may be said to exist.

It is important to stress that such a train of events arises from the existence of credit rather than from the existence of a contract. If the contract initially had been drawn in terms unfavourable to the farmer (the price charged for credit fixed too high) then it may impair his credit position and weaken resistance to this type of take-over. Essentially it is a matter of commercial judgement to assess the terms of a contract. Bad judgement here will damage the farm economy as will bad judgements in any other matters of farm management.

In these circumstances it seems very necessary that current practice and experience of contract trading should be well documented and analysed. In practice, relatively little information exists about what types of contract are used, what experience farmers have of contract trading and what real dangers and opportunities the system presents. It

is one of the aims of this study to make some contribution in this direction.

A second intention of the study is to explore those factors in the current situation which seem to foster the growth of contract trading. It is clear that a multitude of different factors, many working in contrary directions, must be considered. In part these may be summed up in terms of the effect of the arrangement upon the money profits of all concerned. More completely, however, some attention must be paid to the uncertain non-monetary motives which are clearly of importance in farming - and probably in every other industry.

Contracts depend upon agreement between at least two parties. Thus to discuss the forces currently tending towards the growth of contract trading it has been necessary to look beyond the farm gate. Farming, like other industries, seems subject to an ever increasing division of labour and specialisation of function - what happens on the farm must be seen in the context of a long chain of inter-connected processes which starts before the farming process and continues through to the final consumer. The basis of agreement, upon which contracts must depend, hinges upon a synchronisation of interest between the farmer and at least one other link in the chain. It has then been necessary to examine some of the pressures and attitudes at work upon other sectors of the agricultural and food industries.

The implications of contract trading affect the whole economy. To some degree the deficiency payment system of price guarantees may be regarded as a contract between the whole community and the agricultural industry. As a group farmers are invited to produce various quantities of the 'review' commodities at certain prices. Recent changes have tended to reduce these prices should the quantity forthcoming exceed that desired by the State. This type of contract has brought a large measure of stability to the industry and has been a means by which farmers have received a price higher than that in the 'open', world, market. It could be argued that this differential indicated the superior attractiveness, or quality, whether for social, political or economic reasons, of home produced as against imported food.

Essentially the national contract is with the industry as a whole.

It does not discriminate to any great extent between individuals. Issues of consumer preference are reflected in market prices, so that although the industry has a measure of protection the individual farmer benefits or suffers as he is successful in meeting the needs of the market. In contrast, the private voluntary contract offers a measure of security to the individual, but prices cannot in the long run be allowed to diverge far from the level of the market.

In this situation the contribution of contract trading to the economy depends upon the extent to which it forms a more efficient means of organising production and distribution. In so far as it does so, the level of prices may be somewhat reduced but the net return to producers will not go down, the lower prices being offset by reduced costs.

The third purpose of this study is, then, to observe ways in which contract arrangements can improve the functioning of the price mechanism. For this purpose, too, it has been necessary to examine the whole chain of production processes. Essentially the test of a marketing mechanism must be its ability to transmit meaningful and precise information about consumer demand to those taking production decisions. Contracts mean that some decisions are taken at a different time and sometimes by different people than in the traditional open market. The question which must guide our judgement of this method of trading is the degree to which the decisions taken give more realistic effect to the pattern of consumer preference.

Inevitably the resources of time and labour available for this study mean that only a very broad indication of the present state, trend and implications of contract trading has been possible. The study has been based upon two surveys of farmers, personal visits and correspondence with many people who offer farmers contracts to sell, an examination of actual contracts and a study of published literature in this field.

The three chapters which follow deal separately with farmers, with their customers and with the operation of the price mechanism within the framework of a contract system. This division is artificial. Although it is convenient for purposes of exposition the true impact and significance of contract trading requires all three elements to be considered together. The final chapter attempts to draw these threads together and to construct a crude balance sheet of merits and demerits for contract trading.

CHAPTER II

The Farmer's Evidence

This chapter falls into three parts:- 1. the extent to which contracts to sell are used by farmers: 2. the factors which encourage their use: and 3. the effect contracts had upon the position of farmers who signed them.

It is based upon two enquiries; one, here referred to as the Pilot Study, was conducted by personal interview among 26 cereal producers whom the writer visited in the course of other work during the winter of 1963/64. The other, which is called the Postal Survey, took the form of a questionnaire sent to 212 farmers in the South and South Midlands. The farmers in the Postal Survey all took part in the Farm Management Survey in the spring of 1964. Answers were received from 144 farmers and 41 Market Gardeners. These enquiries which involved only a small number of farmers in a restricted area, cannot be regarded as giving a comprehensive picture of the role of contracting in British farming. Nevertheless it is believed that the broad pattern of their results does afford some indication of the use of contracts on many farms.

In both enquiries attention was focused upon written agreements. Some farmers have less formal, verbal, agreements which have much the same effect as a printed and signed document. These arrangements are not dealt with here. Their existence means that there is a greater degree of the mutual regulation of production and marketing by farmers and their customers which is characteristic of contracts, than is revealed by this study.

The main interest in these enquiries was the use of voluntary contracts. For two important farm products, milk and sugar beet, contracts are effectively compulsory. However, although the form and effect of such compulsory arrangements may in some respects be similar to those of contracts for other products, they do not pose the same problems of choice or arouse the same fears of outside domination as voluntary contracts offered by private businesses. Thus although occasional reference is made to compulsory

contracts the discussion which follows concentrates upon contracts chosen by farmers in situations where alternative non-contract markets exist.

I. The extent of contracts to sell

The evidence of these enquiries suggests that only a minority of farmers sell on contract, that many of those who have signed contracts, sell only a small proportion of their output in this way and that contracts are relatively common for a few specialised products.

The farmers who responded to the Postal Survey reported 107 contract agreements. Only 59 of the 144 farmers concerned had contracts, but many of those who did had contracts for more than one product.

A very rough indication of the proportion of farm output sold on contract is given by a comparison of the number of contract agreements with the number of enterprises on the farms with contracts. There were in all 272 separate enterprises on these 59 farms, so that products of well over half of these must have been sold by non-contract or statutory contract procedures. Some farmers, of course, sold a very high proportion of their products on the basis of voluntary contracts, but the overall impression is that for farmers as a whole voluntary contracts formed a subsidiary method of marketing.

This impression was even more emphatic for the 41 Market Gardeners, only nine of whom had a voluntary contract. The sample of market gardens included in this study may have been uncharacteristic as a result of the area covered by the enquiry. Had the survey been conducted where processing crops were of greater importance, for example in East Anglia, a greater number of contracts would probably have been reported. Because of this uncertainty and the small number of contracts reported, no attempt has been made to analyse the place of contracts in horticultural production on the basis of this information.

The concentration of contracts upon a limited range of products was a feature of both the Postal Survey and the Pilot Study. Of the 107 contracts reported in the Postal Survey, 56 were for cereals, 18 for pigs,

10 for grass seed and 9 for poultry and eggs. Among the 26 farmers taking part in the Pilot Study there were seven cereal contracts and six pig contracts.

A better estimate of the differing degree to which contracts were used for various products is given by a comparison of the proportion of contract to non-contract sales. Thus in the Postal Survey 83% of the producers of herbage seed sold on contract. The only other products for which a substantial proportion of producers had contracts to sell were cereals (49%) and pigs (33%).

This examination of the extent of contract trading is incomplete without some reference to the role of compulsory contracts. There were 96 milk producers and 10 farmers who grew sugar beet. Of these 106 farmers, 61 had no voluntary contract. Thus the total number of farmers without any form of contract was only 24. Even when these compulsory contracts are taken into account it remains clear that for many farm products, particularly cattle and sheep, very little use is made of the system of contract trading.

2. Factors which affect the use of contracts

The enquiries suggested several factors which influenced the extent to which contracts were used by farmers. These are discussed under five headings.

(a) The characteristics of seeds, cereals and pig production which made these products suitable for voluntary contracts.
(b) The types of farm which made most use of contracts.
(c) The role of contracts in farm management decisions.
(d) The attitude of farmers to voluntary contracts.
(e) The relevance of contracts to group trading.

(a) The characteristics which made seeds, cereals and pigs suitable for voluntary contracts.

There were 26 contracts for cereal seed and 10 for herbage seeds. Two main considerations fostered the use of contracts for seed production. First the buyer needed to be certain of the purity of the crop. Second, farmers

who had undertaken the extra costs and trouble involved in producing a seed sample needed an assurance of an outlet which would provide an adequate reward.

The purity of a seed sample depends in large measure upon satisfactory husbandry standards. An appropriate stock seed must be sown. Weeds must be controlled by the use of a 'clean' field, by spraying and by careful roguing of the crop. Care must be taken to see that the seed is not adulterated by contact with non-seed varieties in adjacent fields. Conditions laid down in contracts for both herbage and cereal seeds ensured that these standards were observed. Thus a sample grown on contract was more likely to possess the characteristics desired by the seed buyer.

Such precautions, needed to make the sample acceptable, involved extra costs. Greater outlay is likely to be involved for stock seed and for sprays. More labour is required to rogue the crop and to ensure that harvesting machinery is thoroughly clean from the residue of previously harvested crops. Much care may be needed in cleaning and drying the crop to ensure a satisfactory standard of germination. The price clauses of a contract can offer reasonable assurance to a farmer that provided his standards of husbandry are satisfactory, the price he receives will repay the trouble taken.

All the cereal contracts for non-seed crops (30) were of the Forward Sale type. That is, they offered a firm price for a crop, already harvested, to be delivered at a later date.

This type of arrangement was suitable for cereals for four reasons. First the crop could be stored by the farmer, the price he received reflecting the costs of storage which he bore. Second, although cereal prices may be expected to rise during the marketing year this is not certain; a fixed price affords an element of added security to the farmer who decides to store for sale later in the marketing year. Third, the fact that a crop is already sold may, in some situations, improve the credit standing of the farmer, e.g. merchants to whom the crop is contracted may be

more willing to provide feeding-stuffs against its security and banks may feel a greater willingness to provide overdrafts where they are certain that at a known future date, the farmer's account will come into credit. Finally, forward sale agreements require a reasonably precise description of the quantity and quality of the goods under contract; although cereal crops in store on the farm may be difficult to measure exactly, a broad description of the goods available is easier than for many other farm products.

Pig contracts fell into three main categories. Of the 18 pig contracts reported in the Postal Survey, 11 were for processing (seven bacon and four heavy hog contracts), five were for pork pigs and two for weaners. Different considerations favoured the use of contracts for each group.

The contracts with processors were used to ensure regularity, to give security to the farmer and to reward quality. Pig factories, whether they produced the traditional Wiltshire cure or manufactured a wider range of pig products from heavy hogs, depended for their economic functioning upon a reliable supply of suitable pigs. For them contracts provided a means of offering incentives to farmers to provide a regular supply of high quality pigs. From the farmer's point of view a contract gave security both in respect of price and outlet. In addition the quality bonuses rewarded special care taken in breeding and feeding programmes to produce the kind of pig required.

Pork contracts were less common, reflecting both the lesser dependence of the butcher upon regularity of supply and the less precise notions of quality attaching to this product. Where contracts were used two factors seemed of especial importance. First the contract was a means whereby the butcher could assure himself of a continuing supply of pigs, even when pork pigs were relatively scarce in the auction market. Second, some farmers viewed contracts as a means of planning pork pig marketing on a more scientific basis. Payment could be related to the deadweight and quality of the carcasses rather than to the visual judgement of the auction market. Farmers, for whom pork pigs formed a regular and important part of

farm output found in contracts a means of adding to their own security.

The two weaner contracts were used to regulate sales between farmers. By determining the breeding policy to be followed and the husbandry conditions adopted they offered the buyer of store pigs some assurance concerning the quality of his stock. In return the weaner producer was assured of an outlet for his pigs at predictable prices.

This brief examination of the products for which contracts were most commonly used draws attention to several characteristics which seem to favour contract trading. First, where the quality of the final product can be related to husbandry practices, contracts provide a means whereby good practices can be rewarded. Second, where security of outlet is important, especially for products falling outside the guarantee scheme, contracts offer added security to the producer. Third, contracts are a convenient means of encouraging regular production, a characteristic especially important where considerable processing takes place between the farm gate and the consumer. Fourth, where farm products are stored, forward sale contracts provide a mechanism which enables the buyer to reward farmers for marketing their produce at the optimum time. Finally, contracts permit inter-farm transactions to be regulated on an agreed basis.

Four of these factors may become of increased importance in the future. Scientific husbandry seems likely to increase the possibility of control over the quality of most farm products. Security of outlet may become of greater importance if farmers concentrate on fewer enterprises in order to make full use of available skills and capital. Greater specialisation may well lead to an increased degree of interdependence between farms. Finally, the proportion of farm products sold to processors seems likely to increase.

(b) The types of farm which made most use of contracts.

Contracts were more common on large farms (both in the sense of output and acreage) than on small farms. A comparison of farms in each of six acreage size groups showed that a higher proportion of the farms

with contracts had outputs per acre in excess of £40. In acreage terms, 82% of the farms with contracts were over 150 acres compared with 47% of those without.

Three factors seem to be responsible for this greater use of contracts by large farm businesses: the pattern of production, the intensity of production and the attitude of the farmer's customers.

The pattern of production on many large farms tends to give greater weight to cereal and herbage seed enterprises for which contracts are relatively common. Although many small farms produce cereal crops, most are unable to do so on a scale which would justify investment in drying and storage equipment which may make forward sales attractive. The limited acreage available to small farms, means that it is likely to be more difficult to provide a field in the right place in the rotation and sufficiently isolated from other similar crops, in order to ensure satisfactory standards of purity for seed production.

For small farms milk production offers the most obvious way of achieving a satisfactory level of output and a regular income. Thus of 45 farms below 150 acres which had no contract, 71% produced milk and of these 68% derived more than half their gross output (in money terms) from milk. This pattern of production meant that for many small farms the scope for voluntary contracts - in contrast to the compulsory contract of the Milk Marketing Board - was very limited.

More intensive farms seem to be more likely to make use of contracts for two reasons. The added risk of greater intensity and the growing complexity of managing a highly intensive farm business.

A farmer who knows in advance the price he is to receive for his product can push production up to the point at which the final unit produced just balances the extra costs incurred. If prices are uncertain he will be prudent to restrict his production to those units which offer a larger margin. If he does not there is a risk that part of his output may be sold at a loss. Contracts can remove this risk. Again farmers who seek to increase the level of output from a fixed acreage must seek to substitute

more intensive for less intensive enterprises. Thus there is a tendency towards greater specialisation and an added risk of a sharp reduction in income due to an unforeseen fall in a critical price. Again a firm contract price can limit this risk.

The technical problems of management seem likely to grow as farming becomes more intensive. Care must be taken to ensure the efficient use of feedingstuffs, to recognise and counter animal or plant diseases and to ensure that farming operations are carried out at the right time. Contracts may save managerial time which would otherwise be needed to market each unit of production. A single negotiation which covers the sale of a year's output for a whole enterprise may thus become more attractive.

Farmers' customers prefer to deal with larger farmers because this can cut their costs of procurement. A similar amount of office work and negotiation may be involved in buying small quantities as large, thus, other things being equal, preference is likely to be given to the larger supplier. Only highly specialised small farms are likely to be able to offer substantial quantities of a particular product.

The greater use of contracts on large farms suggests that contract trading is likely to be stimulated by those factors in the contemporary situation which tend towards an increased scale of farm business. Simultaneously, in so far as contract trading enables farmers to produce at lower costs it may itself reinforce the tendency towards larger scale farming.

(c) The role of contracts in farm management decisions.

Farm management is primarily concerned with maximising the profits of the farm business. Three aspects of contract farming which affect profitability can be distinguished: price advantage, risk reduction and improved management.

No straightforward comparison of contract with non-contract prices is possible. Contracts usually refer to a specific quality of product at a specific time. Average market prices cover a range of prices over a

period of time. For some products, e.g. hatching eggs, no realistic open market price exists. Contract prices refer to goods either at the farm gate or at the purchaser's premises, official price statistics usually cover goods sold in auction markets. Thus for many contracts it is impossible to say in general terms whether the price offered is better than that which would have been realised in more traditional markets.

Some contracts, however, offered a fixed premium over agreed market prices. Cereal seed contracts were often based on an addition of 2/6d. cwt. to the average market price. Bacon contracts included bonuses for regular delivery and good quality. Contracts for hatching eggs included price clauses which offered a premium over market prices for eggs taken for hatching and a bonus for hatchability.* Such contracts must be assessed by the extent to which the extra price offered compensated the farmer for the extra trouble taken. No general conclusions can be reached on the merits of these arrangements. Each must be assessed against the extra costs involved in individual situations. However, the fact that many farmers who had this type of contract renewed them in successive years suggests that in their circumstances the contract price was fair and profitable.

The importance of contracts as a means of making more intensive methods possible through the reduction of risk has already been discussed.** Here it is necessary to note that the main alternative method of risk reduction, diversification, is likely to lead to higher costs. Diversification may impose a strain on the managerial ability of the farmer leading to lower standards of technical efficiency. In addition, each separate enterprise is likely to involve an element of investment in fixed resources which it may be impossible to utilise fully within the scale of output possible on farms of limited size and having limited capital resources.

A further way in which profit may be increased through contract trading is management advice. Many firms which offer contracts employ advisory staff who visit farmers and discuss particular husbandry problems. Some of this advice may be used as a means of expanding sales of the firm's feeding-stuffs or fertilizers, but in many cases it is provided on a disinterested

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* See Appendix I page 66.
** Page 11-12.

basis. Specialist advisory officers are often more informed about current technical developments affecting a particular product than the farmer. Thus, as a by-product of his contract agreement, the farmer may acquire new techniques and develop new skills at an earlier stage than if he had been selling in the open market.

In some farming situations it is clear that contracts can add to profitability. Where market risk forms an important element in management calculation or where new techniques are employed, contracts may make a contribution to lower costs. The risk attaching to the major farm products, however, is reduced by the existence of price guarantees. Should this system of support be modified contracts might become of importance for a wider range of farm production.

(d) The attitude of farmers to voluntary contracts.

The evidence of these enquiries indicates a diversity of attitude to contract trading among farmers. However, it seems probable that younger farmers are more ready to trade in this way and that where farmers have had experience of contracts for one product they are more willing to consider them for the other goods they have to sell.

An attempt was made to assess the attitude to contract trading of farmers interviewed in the Pilot Study. They were asked to say what were the main advantages and disadvantages of contract trading. Three main topics were mentioned, prices, security and the difficulty of fulfilling contract terms.

Eleven farmers said that contract prices were higher than those offered elsewhere. Nine disputed this view, two arguing that prices were higher in the traditional open market. Both those who believed contract prices to be higher and those who argued that they were lower probably based their views on personal experience. Those who pointed out that prices might be lower were keenly aware that a fixed price contract might mean a lost opportunity to profit if market prices rose above the expected level. The effect of such an awareness depends upon the personal valuation placed by farmers on an assured price. For some this advantage was not outweighed by the lost opportunity to make an even higher

profit should market prices prove favourable.

The advantages of security were stressed by eight farmers. Two mentioned the attractiveness of firm prices, three, the rewards which contracts made possible for regular production and improved quality and three, the merits of an assured market.

A greater awareness of the difficulties of complying with the terms of contracts was evident among those farmers who had had contracts. Five such farmers said that regular delivery was a problem and two that they had found production conditions to be onerous. Regular delivery was mentioned as a disadvantage by two farmers who had not signed contracts, but none of these farmers mentioned the difficulty of fulfilling production conditions.

The Postal Survey gave some evidence of a greater readiness to use contracts among younger farmers. Of 86 farmers under 50, 45% had some form of voluntary contract compared with 25% in the older age group. It seems possible that younger farmers may be more willing to experiment with a relatively unfamiliar method of marketing and that they find less pleasure in the social contacts afforded by traditional marketing procedures. If this pattern is representative of farmers as a whole it suggests that greater use may be made of contracts as a new generation succeeds to the control of farms.

A major factor likely to influence farmers' attitudes to contracts is their personal response to risk. Research in the United States suggests that, when any price has to be forfeited to achieve security, some American farmers prefer risk to security. However, a farmer who has never sold on contract, may regard a written agreement, covering the production and marketing of his products, as involving more risk than the familiar hazards of the open market.* An attempt to assess the personal response to risk of farmers visited during the Pilot Study, showed no significant difference

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* See for example Johnson, P.R. - "Do farmers hold a preference for risk?" Journal of Farm Economics, Feb.1962.

between farmers with and without contracts.* In conversation it was clear that several farmers were confident that they could obtain higher than average market prices and that for some there was a positive pleasure in taking a chance on the open market.

In so far as these enquiries shed light on farmers' attitudes to contracts they suggest that some confusion exists concerning the attractiveness of contract trading. Where farmers believe that they can beat the market or enjoy trying to do so, the growth of contracts may be slow. On the other hand the greater willingness of younger farmers to sell on contract may lead to their more widespread use as older farmers retire.

(e) The relevance of contracts to group trading.

The recent growth of farmers trading groups has been associated with a wider use of contracts.** Only nine of the 107 contracts reported in the Postal Survey were with farmers' selling groups. It seems possible that this understates the extent to which such groups have encouraged the use of contracts.

The role of contracts in group trading can be summed up under two headings, better bargaining and better discipline. The bargaining power of the group depends upon the concerted action of its members. To exploit the added attractiveness of selling in larger quantities it is necessary to deal on behalf of all members of the group. Contracts provide a mechanism whereby such negotiations may be carried out, and the terms of the contract indicate to each member of the group what opportunities exist for profitable production. In order to secure satisfactory terms the group must be able to deliver the goods. This involves discipline concerning the quality of production, the timing of production and loyalty of members to the group. Contracts between the group and its members permit such discipline to be enforced. Because they are

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* Farmers were invited to say whether they would choose to sell wheat at a fixed contract price of 20/- cwt.in a wide range market from 17/6 to 22/6 cwt.or in a narrow range market from 19/- cwt.to 21/- cwt.. Of 14 farmers with contracts, 2 chose the narrow range, 5 the wide range and 6 the contract. Of 12 without contracts, 4 preferred the narrow range, 3 the wide range and 4 the contract. Two farmers made no choice.

** See A.Barfield. Marketing Groups for Livestock. Farm Intelligence Ltd. for an interesting examination of farm selling groups.

negotiated in advance the group avoids the uncertainty and arbitrary nature of ad hoc committee decisions. The farmer who signs such a contract knows the limit of his liability to the group and is assured of the reliability of other group members.

Two types of group contract are important, the internal contract between the member and the group and the contract with an outside customer.* Internal contracts are mainly concerned with discipline, but they can also regulate bulk purchase of supplies. External contracts may be negotiated on behalf of the group member as individuals or they may be negotiated for the group as a whole. The second type of arrangement promises greater rewards for group activity but it also demands a higher standard of group discipline.

If group trading becomes more common, contracts will be more widely used. Soundly conceived, internal contracts make it possible for the group to act cohesively. Through external contracts groups can take advantage of their capacity for joint action.

This discussion of the factors which seem to foster the use of contracts to sell suggests that contracts may become of growing importance. Such a view is supported by the growing degree to which improved techniques give control over quality, by the pressures towards larger and more specialised farm businesses, by the opportunities which contracts provide for a higher standard of farm management and by the probable growth of group trading. Some factors may restrain the development of contract trading. The existence of a statutory marketing system for milk provides an outlet within which there is no scope for a voluntary contract. Guaranteed prices reduce the risks facing the farmer and so diminish the attractiveness of a contract. Some farmers prefer the traditional marketing methods. This may reflect a distrust of contracts or a positive pleasure in the social contacts old practices provide. Despite this an extension of contract trading seems to be in the interests of many farmers at the moment.

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* Examples of these contracts may be found in Appendix 1.

3. The final section of this chapter examines the effect of contract arrangements upon those farmers who had contracts. It falls into two parts:

(a) An examination of the types of contract signed by farmers in the Postal Survey to see what measure of independence had been sacrificed.

(b) An exploration of the profitability of farms with and without contracts.

(a) There were 33 Forward Sale contracts reported in the Postal Survey.* These arrangements involved no interference with the way in which the crop was produced and restricted market freedom only in respect of the particular consignment covered by the contract. They simply changed the time at which a decision to sell the crop was made. The farmer was perfectly free, as in any other deal, to evaluate the price offered against his assessment of other probable price offers during the marketing season. In no sense did these arrangements encroach upon his independence.

A greater measure of interference was implied in the 31 Marketing Contracts** reported. These contracts, signed before production was complete, specified not only the quantity and price of the product subject to agreement but such other matters as the timing of successive deliveries over the life of the contract and the measurement of quality for purposes of price determination. No direct interference was involved in farm production processes, but such requirements as regular delivery may have involved some indirect interference as a result of the need to adapt existing routines. Such adaptation reflects the needs of the market. In the long run the pressure of price in the free market would tend to reward those farmers who adopted appropriate practices and to penalise those who did not. A marketing contract may help the farmer to react more promptly to a changed market situation. Only in this indirect and helpful sense can it be said to interfere with the running of the farm.

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*Of these 30 were for cereals and three for livestock products. The latter were probably simple Marketing Contracts rather than Forward Sales in the sense defined here.

**Of these 6 were for Cereals, 1 for Blackcurrants, 14 for Pigs, 3 for Barley and Eggs, 5 for Lambs, 2 for Calves.

Formally the 35 Management Contracts* did impose specific terms requiring conformity to certain husbandry conditions. In practice most of the terms imposed were those which a prudent farmer, wishing to sell the products concerned, would have adopted in any case in his own interest. The seed contracts specified the varieties to be used, the place of the crop in the rotation and the location of the crop in relation to other crops. The contracts for poultry were concerned with hatching eggs and included terms dealing with housing, the health of the stock and the type of bird to be used. Such conditions must be observed if seeds or hatching eggs are to be sold. Their incorporation in a written contract may mean very little real erosion of the farmer's traditional freedom. A more serious infringement of independence may have resulted from terms noted in six contracts which required specific feeding practices to be followed. In so far as this involved the use of one brand of feedingstuff, farmers needed to be sure that this did not impose higher costs, which would more than offset the benefits arising from contract prices. In such a case the lost freedom to switch to a rival brand of feed could prove expensive.

The eight Resource Providing Contracts** fell into the category which might be expected to lead to the greatest loss of independence. In fact none of them involved any greater loss of freedom than the contracts already considered. Six were for seed production, the resource provided being the stock seed. This was more a convenient method of accounting than a significant transfer of resources. In every respect the farmer, who could easily pay the full cost of the seed, had as much freedom as farmers who had signed Management Contracts for seed production. The other two Resource Providing Contracts were both cases where merchants had made advanced payments for a cereal crop which was under contract to them. Again the farmer's independence seems no more in peril than where a Management Contract has been signed for a particular crop. More formidable

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* Of these 18 were for Cereals, 6 for Herbage Seed, 1 for other crops, 4 for Pigs and 6 for Poultry and Eggs.

** 6 Seed, 2 Cereals.

Resource Providing contracts do exist,[*] but their absence from this enquiry suggests that they must be uncommon amongst farmers producing the ordinary range of crops and livestock products.

This examination of the terms of contracts gives very little evidence of any important loss of freedom by farmers who had signed contracts. It is possible that a more subtle danger may arise from the very profitability of some contracts. One farmer, for example, had been so encouraged by his experience of contract production, that he committed himself to a considerable investment in specialised poultry equipment in order to extend his contract. This proved very successful, but had the purchaser refused to renew the contract on satisfactory terms, the farmer might have been compelled to accept less favourable terms in order to utilize his investment. The most effective guard against abuse of such a position is the existence of a competitive market for the farmers' products.

(b) A classification of the farms according to acreage and profit[**] per acre showed that in each size group[***] farmers with contracts had higher profits than those without. As a group 70% of the farmers who had contracts had profits over £5 per acre, compared with 51% of those farmers who had not signed contracts.

No general conclusions concerning the effects of contracts upon profitability can be drawn from this evidence. The fact that farmers with contracts had in general, rather higher profits raises the problem; did the better farmers choose contracts, or did contracts lead to higher profits? This cannot be resolved on the basis of the evidence available here. The higher level of output per acre noted among farmers with contracts may help to explain their greater profitability. Contracts may make higher outputs easier to attain but they are only one of several factors which are relevant to increased farming intensity. However, this

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[*] See Appendix 1 pages 67/68.

[**] Profit in this context is taken as Management and Investment Income.

[***] Size groups

0 - 50 acres	150 - 299 acres
50 - 99 acres	300 - 499 acres
100 - 149 acres	Over 500 acres.

evidence does suggest that contract trading had not damaged the fortunes of those who chose to sell in this way.

This chapter attempted to answer three questions, what is the extent of contract trading, what factors encouraged the use of contracts and what effect these arrangements had had upon the position of farmers who sold on contract. The conclusions to be drawn are first that voluntary contracts cover only a limited range of farm products, second that underlying economic forces seem likely to lead to a greater use of contracts in the future and third that contracts to sell do not seem to have undermined either the independence or the profitability of those farmers who used them. These conclusions do not mean that there are no examples of contracts which tie farmers tightly to particular outlets or that there are no dangers in the further use of contracts. However at the moment the balance of advantage seems to be nicely drawn to enable efficient farmers to make profitable use of contracts to sell.

CHAPTER III

The Farmers' Customers

Contracts to sell involve two parties. This chapter examines some of the problems of firms which offer contracts to farmers. It is based upon visits to a number of firms and correspondence with others. Clearly the impressions derived in this way do not provide a basis for a comprehensive account of the attitudes and problems of all firms which buy from or sell to farmers. However, many of the issues discussed are likely to be common to a much wider group of businesses which offer contracts to farmers than those actually interviewed.

The firms involved were asked what products they bought from farmers on contract and what was their experience of trading in this way. The

interpretation of the replies requires some understanding of the economic environment within which the farmers' customers work. For this reason a brief indication of those parts of the commercial background most immediately relevant to contract trading has been included.

Four main types of firm have been distinguished.

(a) Agricultural merchants (12 firms visited)

(b) Processors of farm products (5 firms visited)

(c) Wholesale organisations (5 firms visited)

(d) Retail organisations (4 firms visited)

Agricultural Merchants

The 12 firms discussed under this heading fall into four groups. In the first group are two manufacturers of national brands of feedingstuffs. In the second are four country compounders who manufactured their own brands of feed and sold these in addition to a wide range of farmers' requirements within a limited radius of their factory. The third group included four firms who did not manufacture feedingstuffs but sold farm requisites manufactured by other firms. Finally two firms were grouped together because their main business was in seed, in both cases other farm requirements were also handled.

Information was supplied by one large agricultural co-operative society. Although the ideology and organisation of co-operative business differs from that of other firms considered, agricultural societies find themselves in competition with the private merchant. Thus many of the factors which affect the group of firms here described as agricultural merchants are relevant to the position of co-operative societies.

Four factors affecting the economic environment within which these firms operate require particular attention - the two-way nature of the merchant's trade, the competitive atmosphere of the trade in feedingstuffs, the growing concentration of feedingstuff manufacture and the need to maintain a high volume of business.

Merchants were very conscious of the two-way nature of their trade. Not only were they buying grain and seeds from farmers, but also they were selling (to an even greater value) feed, fertilisers and other farm inputs. For this reason it was especially important that any contract purchases should be seen to be fair. This may sometimes involve passivity when a farmer defaults on a contract. Litigation may mean a loss of goodwill among farmers which more than offsets the immediate financial benefit of successful prosecution. Not only may such lost goodwill deter other farmers from contract sales; it may also dissuade them from buying their feedingstuffs from the merchant concerned. A secondary aspect of the two-way nature of the merchant's business arises from the danger that market prices may rise above the level fixed under a contract. If, at the time the crop is delivered, the prices of spot consignments are higher, the farmer may feel resentful. If, as a result, he transfers his purchases of feed and other requirements to another merchant, the benefits of a high profit on one deal may be eliminated by a loss of trade in the long run.

All the merchants visited stressed that there was keen competition for the sale of feedingstuffs. This competition had become more severe as a result of changes within the 'trade', and as a consequence of growing price consciousness among farmers. Within the trade some of the large manufacturers have taken over traditional country compounding businesses. This tendency seems to be a response to the growing importance of home produced cereals and to the economies of scale associated with large scale trading and manufacture. Firms, who can derive their raw materials in the cheapest way and manufacture them with the greatest economy, are able to offer very competitive prices to farmers. The increased price consciousness of farmers has been evident in the formation of farmers' buying groups and the reduced degree of customer loyalty reported by some merchants. Not only has there been a marked increase in the volume of feedingstuffs bought by farmers, (at a national level from 13·4 million tons in 1959/60 to 15 million tons in 1963/64) there has also been an increase in the size of many farm production units. In future merchants may have to sell to fewer but larger pig,

milk and poultry producers. Such farmers will obviously exploit to the full any bargaining advantage of larger scale purchases. Some merchants may find it increasingly important to secure their custom, even at the cost of narrower margins.

A recent article published in Economic Trends* demonstrates the growth of business concentration in the milling of feedingstuffs. There it is shown that the number of small milling factories had declined from 430 in 1952/53 to 248 in 1961/63. In the same period factories delivering more than 200,000 tons of feedingstuffs per year had increased from two to seven. This increased concentration supports the view that there has been keen competition within the milling trade. At this stage the effective degree of concentration may be greater than is apparent to farmers. Some of the country firms which have been taken over by national groups (two in this sample) continue to trade under their own names. In the longer run it seems likely that the traditional personal relationship between the small, local merchant and the farmer may be more difficult to maintain. If a more formal relationship is required, contracts seem an obvious way of bringing this about.

The need to maintain a volume of business close to the capacity of the merchant's plant arises from the nature of the fixed costs involved in handling feedingstuffs and grain. Merchants who wish to operate at low unit cost must do so on a large scale. A recently opened mill owned by Eastern Counties Farmers cost £200,000. If such equipment is to be used to best advantage it must be operated at or near its designed capacity. A significant part of a merchant's costs are made up of haulage charges. Clearly, planning deliveries and collections to minimise the mileage lorries run empty or the time they are idle helps to reduce transport costs. The ability to spread these and other fixed costs over a large and even flow of trade makes it possible to operate at a low level of unit costs. The lower the level of unit costs, the lower the price which can be quoted to the farmer and yet leave a

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* Economic Trends, August 1964.

satisfactory margin. In a competitive environment such low costs may be a condition of survival.

Contracts with farmers can increase the volume of business in so far as some farmers may prefer to deal in this way; they can also help to regulate the flow of trade and so facilitate the efficient use of transport and other fixed resources.

The merchants visited used three types of contract. All 12 firms offered contracts for the forward sale of cereals. Ten firms offered contracts for the production of seed crops; six of them buying all their seed requirements in this way. Six firms offered contracts for livestock products. Merchants derived benefit from such livestock contracts in so far as they increased their sales of feedingstuffs. Of the six firms offering such contracts, three included clauses which required that particular brands of feed should be used, one offered bonuses for the use of its brands of feed, one said that farmers were expected to use the products of the firm concerned, and one required the farmer to follow the advice of a feed firm's representative. Five of these contracts were negotiated on behalf of the farmer with processing factories or wholesalers. The sixth involved the merchant in actually buying broilers from the farmer and left the problem of finding a market in the merchant's hands.*

Merchants were invited to explain the pros and cons of contracts. Within this small group three classes of opinion could be distinguished. Seven merchants believed that contracts of all the types represented a desirable and probable line of development. The two seed firms maintained that contracts were an essential method of regulating the production of seed crops but felt no pressure to arrange contracts for livestock products for their farmer customers. Three firms, although they did offer forward sale contracts, preferred to deal in a traditional way and were particularly anxious to avoid involvement in the unfamiliar business of marketing livestock products.

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* See for example Appendix I page 67.

A more detailed examination of the advantages claimed for contracts stressed their usefulness as a means of regulating supply, of controlling quality and of increasing the volume of business.

Both the simple forward sale arrangement and the more detailed contracts for cereal and herbage seeds gave merchants more control over the volume and timing of their supplies. In this way a close approximation could be made to the optimum use of storage, cleaning and transport equipment. Because contracts could be negotiated in advance of harvest, the peak work load on outside representatives could be spread over a longer period. Thus the level of fixed handling and procurement costs, per unit of trade, could be reduced. Two merchants mentioned a secondary advantage of the availability of an assured supply at a certain price. It permitted them to quote a fixed price to a number of farmers who wished to contract forward for supplies of feedingstuffs six months or more ahead.

All but one of the merchants agreed that quality was important. For seed merchants it was held to be essential. Quality control enables the merchant to buy exactly what he wants. At its simplest it may just involve the specification of the type of grain and the moisture content which is desired. More elaborately it may require the adoption of husbandry practices which limit the chances of weeds or unwanted cereal types occurring in the final crop, which regulate harvesting, drying and storage methods to ensure that fertility is maintained and which determine how the product is to be packaged for delivery to the merchant. Contracts enabled merchants to make specific those aspects of the products which were important to them. As a result incentives could be offered to those farmers who were prepared to take extra trouble to produce a suitable crop.

The third major advantage claimed for contracts was that they increased the volume of business. This was the reason why feedingstuff merchants offered or negotiated contracts for livestock products. Other types of contract were also claimed to increase the volume of trade. Because contracts enabled the merchant to make savings as a result of a more

predictable and better quality supply, part of the advantage could be passed on to farmers in the form of keener price quotations. In this way the merchant who offered contracts could win trade from his competitors.

To set these arguments in context, weight must be attached to the problems merchants encountered in using contracts. Three main issues came to the fore - enforcement, risk and goodwill.

Almost every merchant agreed that enforcement was a problem when market prices were significantly above the contract price. In such circumstances farmers tended to send less than the contracted amount, or even, in a few cases, to dishonour a contract altogether. Precise definition of the quantity of grain likely to be realised from a particular crop, or the quantity in store is difficult. Allowance must be made for the hazards of weather, pests and disease. The bushel weight of cereal crops varies from year to year and allowance must be made for losses in store. These difficulties may make legal enforcement difficult. Still more, merchants are reluctant to enforce contracts in the courts because of the costs of litigation and because of the possible effect of such proceedings on goodwill. Instead they seek to establish a continuing relationship with a group of farmers upon whose technical skill and integrity they can rely. Their success depends upon the benefits this relationship offers to the farmer. Among the more important benefits which farmers may receive are better services from the merchant and rather higher prices for goods sold to the merchant. As a result where contracts have become an established method of trading, a close and mutually beneficial confidence often grows up between merchants and farmers. In these circumstances enforcement is a minor problem.

Merchants were conscious of the risk element in contract trading. The merchant is both buyer and seller. If he follows the market price, taking a constant margin on the goods he handles, his income depends simply on the volume of business. If he agrees to buy (or to sell) at a fixed price, at some future date, he may, if the market price is below his agreed buying price (or above his agreed selling price), be doing business at a loss.

Thus one merchant described forward contracts for cereals as "book making over a twelve month period". The risk element can be reduced in two ways, by hedging or by flexible price clauses. A merchant hedges when he offsets forward purchases by means of forward sales. Thus although he may, for example, be committed to buy at 25/- cwt. in June, he has an assured market at 25/6 cwt. This eliminates the risk so far as the merchant is concerned, provided supplies are forthcoming. An alternative procedure is to include flexible price clauses. For example, arrangements which offer a fixed addition to an agreed market price. This is common practice for cereal seed, giving recognition to the greater worth of seed grain without exposing the merchant to any considerable risk.*

Some merchants were opposed to contracts because they had resulted in a loss of goodwill. Attempts to fix prices forward lead to windfall gains and losses. If these favour the farmer the merchant suffers in pocket; if the merchant is favoured, he suffers because disgruntled farmers may take their trade elsewhere. The two-way nature of the merchant's business, the competitive atmosphere in which he works and the continuing nature of his enterprise means that the merchant values goodwill very highly. It seems probable, however, that those who oppose contracts on these grounds underestimate the changes which have taken place in farmers' attitudes. Especially among the younger farmers the notion of continuing to deal with the same merchant out of loyalty is less highly regarded. Where loyalty is rewarded by better terms the farmer is interested, otherwise he will attempt to assess each deal on its merits. Most farmers are aware that a fixed price contract involves the possibility of a windfall loss - they accept this,

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* Some merchants welcomed the establishment of a national cereal marketing authority which hopes to foster forward contracting for the bulk of the cereal crop. This it is believed will avoid the post-harvest rush to sell grain, even out supplies through the year and avoid the problems such as occurred in 1963 when many farmers held grain in the autumn against an expected price rise, only to find that prices fell during the late spring and early summer. The greater the proportion of cereals sold forward the more accurately are foward prices likely to reflect conditions. On the other hand it must be noted that if a small proportion of the crop is left on the free market, price fluctuation there may be more severe.

provided the terms are satisfactory in the absolute payment offered. It seems likely that in the future goodwill between merchant and farmer may depend more upon a recognition that each is carrying a fair share of the risk than upon the pluses and minuses of some particular deal. Nevertheless traditional attitudes exist among farmers as well as merchants and, in the current situation, many merchants may rightly be cautious about a possible loss of goodwill on fixed price contracts.

The balance of these arguments suggest that the firms here described as agricultural merchants are likely to become increasingly involved with contracts. Not only may we anticipate greater numbers of forward purchase and contracts to produce seed or grain, but it seems likely that there will be an extension of contracts into livestock marketing. In these circumstances agricultural merchants may find it necessary to take an even greater interest in the processes of production on the farm and in the marketing of a wider range of livestock products.

The Processors

Under this heading are grouped together firms engaged in freezing, canning, bacon curing, the manufacture of convenience foods and the preparation and bottling of soft drinks. All of them use domestic farm produce as a raw material.

Three firms were visited whose main business is the canning and freezing of vegetables. To a large extent these firms concentrated their activities in the eastern part of the country. Typically their processed goods were designed to be sold through self-service and supermarket stores. For this reason great emphasis was placed upon the development of a brand image which depended partly upon advertisement but especially in the longer term upon consistent quality. The rise in income levels, the growth in the number of households equipped with refrigeration and the tendency for women to work outside the home have placed a premium upon goods which provide palatable meals with little preparation. Such 'convenience' foods are likely to sell at premium prices.

A large meat processor who was visited confronted a similar demand

for goods which required a minimum of preparation before consumption. In contrast to the traditional small bacon factory, the company produced a wide range of pork and other meat products. Food products were sold in suitable packets for handling by supermarkets and self-service stores. The range of products included canned pork and beef, oven-ready pies and pre-packed meat in addition to the more conventional processed meat products, bacon and sausages. Although the manufacture of these products is less concentrated than that of processed vegetables there is a clear need for a consistent product of good quality if brand images are to be established and maintained.

The representative of a major soft drink manufacturer which drew most of its raw materials from home produced fruit, stressed the importance of quality in maintaining the brand image. Although small variations in price and advertisement campaigns affected the short-run level of demand, in the longer run, success depended on a continuing reputation for quality.

This brief description of the firms discussed in this section suggests four characteristic problems which apply to processors in general. First, each of these firms is committed to a large fixed investment both in processing equipment and in establishing a brand image. If the business is to be profitable this must be covered by a large volume of output. To assure this there must be certainty of adequate raw material supplies. Second, the reputation of the firm hinges upon the quality of its product. A prerequisite of high quality is a satisfactory raw material. The farmer must be persuaded to produce the type of raw product required, so that the minimum of waste and grading will be involved in its preparation. Third, agricultural products are, to differing degrees, seasonal in production. If manufacturing capacity is to be used economically, the season must be spread over as long a period as possible and the goods arrive at the factory in an even flow. This requires some planning of the timing of production by farmers. Finally, the processor is selling in a competitive market. If the price paid to farmers is too high, competition in the retail market may involve selling at a loss. On the other hand, if

farmers' prices are too low, the raw materials may not arrive at the factory at all. From the processors point of view a long term relationship with the farmer, in which each party recognises its interdependence, helps to reduce the risk of losing trade to competitors.

For these reasons it is not surprising that the five processors bought farm produce on contract, or that they bought almost all their raw materials in this way. Summaries of some of the main types of contracts used are included in the appendix.*

Discussion with representatives of the firms concerned made it clear that many of the problems of making contracts with farmers are common to several processors. Three were particularly significant:- the problem of determining and applying quality standards, the problem of ensuring that the farmer feels he has had a fair deal and the problem of recruiting suitable farmers.

All five firms had undertaken market research to determine what the consumer wants. To be of value, this information has to be fed back to the farmer in the form of quality specifications. However, such specifications are useless unless, by modified husbandry techniques, the farmer can produce the desired product. Four of these processing firms had undertaken considerable research into the problems of production at farm level. The value of such research depends upon the extent to which farmers who sell to the processor apply improved practices. Thus processor's contracts not only specified the time of delivery and the quality of product required but also included clauses which required farmers to adopt certain husbandry practices or to follow the advice of representatives. Such clauses may encroach upon the farmer's traditional independence; but they do so to his profit.

The problem of ensuring that farmers feel they have had a fair deal is partly a matter of price and partly one of communication. If the contract price is low in relation to market prices, farmers may feel that

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* Appendix I pages 65/66.

the processor is taking a disproportionate profit. This problem is most difficult where contracts run for a period of years.* Clearly some arrangements which reflect changing market prices are needed or the farmer may default on his contract. Equally, if a long term contract price proves to be higher than market prices, the processor may find it impossible to sell at a profit. No single price arrangement is likely to be suitable for all products.** The problem of communication is one of giving the farmer a sense of mutual involvement with the processing firm in the production of a consumer good. Methods used, by the firms visited, included open days, circular letters and the employment of qualified advisory personnel.

None of the firms visited found it difficult to recruit farmers for contract production. However some farmers were more easily able to meet the needs of the firms concerned. The farmer must be able to offer reasonably large quantities and to achieve husbandry standards which will ensure a high level of quality. For some products the perishability of the crop and the costs of transport may set a perimeter beyond which contracts are not worthwhile. Apart from such technical and physical qualities the farmer must be a reasonably reliable and trustworthy businessman. Such reliability is only established over time. The renewal of contracts to farmers who have proved faithful to the terms of earlier agreements,provides a reasonably effective selective mechanism.

The overall impression derived from these discussions with processors is that as consumers buy more of their food in a prepared form, there is likely to be an increase in the contracts offered to farmers. It also seems probable that as the relation between farming practices and the quality characteristics of the farm product are more clearly understood, contracts will cover a wider range of products and involve a greater degree of interference with the farmer's traditional

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* For example a contract for blackcurrants involved a ten year period.

** A fuller discussion of the problems of contract price fixing is included in the next chapter.

freedom of action. The rewards to the farmer who accepts such discipline are likely to be a greater security of outlet, an opportunity to undertake more specialist farm production and a more stable price than in the open market.

The Wholesalers

It is not possible to draw an entirely watertight distinction between the firms described above as processors and those now to be considered under the heading "wholesalers". Essentially the business of wholesaling is the distribution of goods between producer and retailer: that of processor the manufacture of a branded product. However, many processors undertake important distributive functions, and many wholesaling firms are involved in some degree of manufacturing activity (e.g. slaughtering and packaging activities). In this study the firms called "wholesalers" include two companies distributing fresh meat, two vegetables and one eggs. For each of these firms distribution is the main activity and processing only occurs in so far as it is required to make distribution possible.

The wholesale trader is involved both in the problems of farm production and in those of retail shop-keeping. Traditionally the wholesaler has collected produce from a large number of farms, graded it and made it suitable, in form and place, for a large number of independent retailers. Recently, as has become apparent in the course of this study, this traditional role has been challenged. Retail chain stores and supermarkets have taken over some wholesaling activities. The independent retailers have tended to group together in buying organisations, in order to bargain more successfully. At the farm gate, the claims of processors, whose carefully packed and advertised wares fit more comfortably into the supermarket framework, offer a competitive alternative to the farmer. Compulsory marketing boards restrict the activities of milk, egg and potato wholesalers. The Fatstock Marketing Corporation is a formidable competitor in the wholesale meat business. At the local level farmers'

groups have led to a more systematic examination of the pros and cons of various marketing methods. To meet these challenges some wholesalers have considered the use of contracts. These help to satisfy the need to make reliable supplies of suitably graded and packed produce available to retailers. They permit the wholesaler to indicate more precisely what he wants before production starts on the farm and, in this way, make it possible to offer a keen but profitable price to the farmer.*

Discussion with the wholesalers visited identified four problems which were particularly important in relation to contract trading, procurement, quality control, price risk and competition from organisations which might by-pass the wholesaler.

Procurement was a major problem for both meat wholesalers. Supplies of home produced meat, especially beef, tended to be unreliable. One of the organisations visited had established its own beef-lot for the production of barley beef as a means of ensuring supplies. This example of vertical integration is exceptional and would probably have been avoided had adequate and reliable supplies of home produced meat been assured. Contracts offer an alternative method of ensuring supplies and do not involve any capital outlay by the wholesaler. The Verdon Smith Report** observed that "at present contracts are increasing rapidly both in number and size". It seems likely that an important incentive for contract trading in meat lies in the difficulties of procuring adequate supplies. The wholesale firm which had agreements with feed firms under which contracts for meat are offered to farmers,*** saw them not only as a means of improving their supply position but also as effectively using the field representatives of the feedingstuff firms as procurement officers.

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* Examples of contracts may be found in Appendix I, page 60.
** CMND.2282. Committee of Inquiry into Fatstock and Carcase Meat Marketing and Distribution - February 1964.
*** Appendix I, page 64.

Quality control was of especial importance to the egg wholesaler. It enabled him to meet the needs of the retailer for fresh eggs more exactly and to reduce the physical wastage which can occur between the farm and the shop. Difficulties in writing quality clauses into contracts arose in the determination of objective standards and in the relation of these to farm practices. Vegetable contracts had to take account of unpredictable changes in weather, affecting both the quality of vegetable crops and the market for them. Too great a concentration on one quality characteristic may be prejudicial to other important but less easily measured or controlled characteristics. For example one meat wholesaler and a bacon factory, complained that farmers sometimes produced very long bacon carcasses which were deficient in eye muscle. For contracts to become more widely accepted in the wholesale trade a more objective and comprehensive system of quality definition is needed. Such progress must be related to basic research into market requirements and husbandry techniques.

The price risks which confronted the wholesaler are analogous to those already described in the section on agricultural merchants. Both deal in two markets and both depend upon maintaining an adequate margin between buying and selling prices. A relatively small fluctuation in either price could eliminate the profit margin. The wholesaler's position is especially difficult. Whereas the merchant who buys forward can also sell forward the wholesaler who offers a firm contract price is seldom able to sell in advance. The meat and vegetable wholesalers, who were visited, were keenly aware of this hazard. Egg prices presented a different problem because of the price forming activities of the Egg Marketing Board. Risks of adverse price movements might be acceptable if the benefits of assured supplies and improved quality were realised. However a serious problem was the extent to which farmers defaulted on contracts when auction market prices rose above the contract level. One wholesale butcher reported that, in the week he was visited, 400 pork pigs were under contract

but only 200 were delivered. Such dishonouring of contracts means that fixed prices involve the wholesaler in a disproportionate share of risk and do not offer the compensation of guaranteed supplies.

Competition from trading organisations which by-pass the wholesaler is already significant for vegetables* and is threatened for eggs. One egg producer has caused concern by announcing plans to establish a self-sufficient production and marketing unit of 12 million birds. If this system succeeds the larger feed firms may be forced to follow suit.** The egg wholesaler who contributed information to this study had established contract arrangements which provided an outlet for farm production, and made supplies of feed, chicks and poultry equipment available at cut prices. In this way, the wholesaler took advantage of his own expertise in handling and selling eggs and, at the same time, helped poultry producers to reduce their costs of production. Other wholesalers threatened by competition from large retailers or producers may find contracts afford a means of strengthening their competitive position.

This examination of the use of contracts by wholesalers emphasises that, while several powerful forces tend to encourage the use of contracts, the difficulty of enforcement may mean an unacceptable level of risk for wholesalers who offer fixed price contracts. If this can be overcome by the use of a suitable flexible price system, or by more stringent discipline, contracts may come to play an important part in wholesale trade.

The Retailer

All four retail organisations visited operated a large number of shops throughout England. Three of them were primarily

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* See next section of this chapter, page 37.

** See remarks of B.O.C.M. Chairman, Farmer and Stockbreeder, 20th October, 1964.

concerned with food, while one carried clothing in addition. The only products which were regularly bought on contract from farmers were vegetables and broiler chicken.

The use of contracts between farmers and retailers depends upon the extent to which goods leaving the farm can be sold without further processing. The growth of processing means that, for many food products, shops acquire their supplies from manufacturers. Where the scale of business is small, it seems likely that retailers will continue to depend upon the wholesale merchant.

Recent changes in shopping practices are sometimes referred to as a retail revolution. Some indication of the extent of such changes is given in figures published by McCelland.* He estimates that at the end of 1962 British supermarkets controlled 6% of food sales. He predicts that by 1966 22% of the trade will be done by supermarkets and by 1981, 66%. At the same time independent grocers are forming groups to attain the benefits of bulk purchase. This movement began in 1954 but in a few years, it had grown to control half the trade of independent grocers. These changes have been associated with the growth of self-service, the development of domestic refrigeration and a general rise in income levels.

Discussion with representatives of the four retail organisations revealed that only two had any contracts directly with farmers. Of these, one group bought all its requirements of poultry and horticultural products on contract. Although stringent conditions were laid down concerning production, marketing and hygiene, prices were not fixed in advance. The other organisations which bought on contract also made use of the wholesale market but a conscious attempt was being made to decrease the proportion of goods bought from wholesalers. Basic research into production and handling methods was carried out. The contracts offered by this firm, which employed a variety of price clauses for differing products, attempted

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* McCelland, W.G., Studies in retailing. Blackwell 1963.

to encourage farmers to make use of the results of this research. The best results had been obtained with relatively new, controlled environment products such as broilers and mushrooms.

Both firms stressed that their main reason for buying on contract was to ensure a high standard of quality. This involved careful planning of deliveries and a ruthless discarding of any products which were below standard or which had been in the shops for longer than the allotted shelf-life. The problems of quality control still required research at the production level. Such research demanded the resources of a large organisation. At this stage it seems improbable that direct contracts between farmers and smaller retailers will assume much importance.

The two firms which did not offer contracts to farmers did buy some products at the farm gate. In particular strawberries and lettuces were often bought from local producers by branch shop managers. However, there was a desire to avoid involvement in farming or horticultural problems, which were outside the experience of the retailer. In each case it was agreed that future development might involve contract purchases, in order to ensure quality and to provide a regular supply.

At the moment the direct effect of changes in retailing upon contract farming appears to be small. Indirectly, the need for more processed and pre-packed goods, may result in an extension of the contracts offered by processors and wholesalers. If, as seems possible, quality becomes a more important element in competitive success, then in the longer run the needs of the newer type of store may make themselves felt in the terms of contracts offered to farmers by those who supply the shops concerned.

CHAPTER IV

Fixing a Contract Price

There are a variety of ways in which decisions affecting price may be written into contracts. A particular price, or range of prices related to grade and weight, may be specified when the contract is signed. Here this is called a 'fixed price' contract. Prices may be based upon a stated addition to farmers' costs, calculated according to an agreed formula - this is designated a 'cost plus' contract. For some contracts prices are fixed according to an agreed addition to market prices, here called a 'market price plus' contract. Finally, some contracts allow the price to be determined after, or at the same time as, the goods exchange hands; this is referred to as a 'no price contract'.*

This chapter discusses some of the problems and possibilities of these types of price arrangements. It falls into four sections:

1. The function of a contract price
2. The problem of price variation
3. The allocation of risk
4. The conditions appropriate to different types of contract.

No sophisticated analysis of price theory is made here, but it is important to distinguish between two of the functions of prices. First, prices transmit information from consumers to producers about the overall level of demand. At differing prices different quantities will be consumed and produced. Where total supplies at a certain price do not satisfy demand at that price, prices will tend to rise, simultaneously increasing the quantity produced and decreasing the amount consumed. This overall equation of total supplies and total demand can be called the 'long-term effect'. Second, there is an important 'short-term effect' of price movements. In this situation there is no possibility of changing the total

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* For examples see appendix I. Barley Beef p.60 = Fixed Price Contract Heavy Hogs p.61 = Cost Plus Contract. Hatching Eggs p.66 = Market Price + Contract. Cereal Seed p.63 = No Price Contract.

quantity of a good available and price movements serve to allocate the existing supply among various outlets: by so doing best use is made of the supply of a product.

Unfortunately actual price movements are not clearly identifiable as belonging to the short or long-term category, and the confusion results in waste. Short-term price movements form a misleading guide to production programmes. Essentially they occur within the production cycle so that the farmer is unable to vary his output and must accept their incidence as a windfall gain or loss. To this extent they increase the uncertainty attaching to his business. Thus he must budget for a rather larger margin upon his production in order to offset this element of uncertainty. In other words, at a given 'long term' price level less will be produced and the economy will be poorer. On the other hand, if short-term price fluctuations were to be eliminated, prices moving only when they could favourably influence production decisions, waste would occur in the distribution processes. For a given fixed level of short-term prices, surpluses of a product could pile up in one area while shortages existed elsewhere. Again there would be no incentive to hold goods (by cold storage for example) against an expected price rise one week or one month away. A function of the distributive industries is to make the best use of available supplies and, if they are to do this successfully, prices must be allowed to vary in the short term.

Finally, if all short-term price movements were prevented consumers would be unable to redistribute their incomes in order to exploit real but temporary changes in supply conditions.

One of the claims made for contract trading is that it permits these two functions of price to be differentiated. A processing firm or wholesale merchant may offer a price to farmers which will induce them to produce the proper quantity for the ensuing year; at the same time they will sell these supplies in the market for the best price they can realise. This solution is fraught with difficulties. It means a transfer of market risk from the farmer to the first purchaser. It means that where an alternative non-contract market exists, there will be an incentive for the farmer to abandon his contract at high points in short-term market fluc-

tuations - leaving the wholesaler or processor with a thoroughly bad bargain. Finally it demands that the firm offering a contract shall be able to discover a 'long-term' price level which is 'right'. If the price to the farmer is too high the firm will suffer in competition for sales with rivals who buy more cheaply. If the price is fixed too low, the firm will sacrifice the goodwill of farmers and may have difficulty in recruiting suppliers for later years.

In order to give some idea of the extent of unpredictable variation in the prices of various farm products, an analysis of prices over the past six years has been carried out. The method used involved the determination of an overall price trend for each commodity and the calculation of seasonal variations around that trend.* In a very limited sense this degree of fluctuation might have been described as predictable and allowance made for it in fixing contract prices. However, not all the fluctuation could be attributed to trend or season on this basis and the residual variation could in no circumstances be regarded as predictable. This average residual variation for a number of products is shown in column (B) of Table I below.

Table I - Analysis of price variation after trend and seasonal effects have been eliminated.

Product	A Average Unit Price	B Average Residual Variation	C Standard Deviation of Residual Variation	D C as % of A
Eggs per dozen	3·7d.	0·06d.	2·6d.	6·0%
Pork pigs per score	30·0d.	0·03d.	22·0d.	6·1%
Steers per cwt.	150·9d.	0·16d.	112·0d.	6·2%
Lambs per lb.	2·10d.	0·00d.	2·45d.	7·2%
Barley per cwt.	21·1d.	-0·16d.	12·0d.	5·2%
Lettuce per dozen	6·2d.	0·16d.	13·4d.	18·0%

The standard deviation of residual variation is shown in column C. Approximately two-thirds of the residual variations for each product are likely.

* For a fuller account see Appendix II.

to occur within plus or minus one standard deviation. Thus column C gives some indication of the inescapable uncertainty facing contracting partners. For purposes of comparison it is shown as a percentage of the price for each product in column D.

With the exception of lettuce the standard deviation of residual variations is a small proportion of the price, well below 10%. However this should not mask its significance. In the wholesale food trades and in milling the margin between selling and buying prices is narrow (often down to 1% - 2% of turnover). Profit depends upon a large turnover. Thus a small price variation can eliminate the profitability of a transaction. Farmers, whose output per unit of time is necessarily lower in terms of the number of transactions, and who usually require more capital for each item of output, are accustomed to rather larger profit margins. But even these margins may be seriously affected by this degree of price variation. For example, if we assume profits from barley production to be as high as 10/- per cwt, a variation of 1/- per cwt can make a considerable difference to the overall income from the crop. Such a difference between a contract price and the open market price would clearly provide a considerable incentive to ignore the contract.

It must be stressed that the measure of price variation used here includes only that element of fluctuation which cannot be described as due to a change in the trend of prices or seasonal effects. Since the calculation is based upon historical data it has been possible to determine trend and season with some precision. A firm deciding next year's contract price has no such certain information and must consider past trends and seasonal patterns in the light of expected changes in the market situation. An almost unlimited number of factors ranging from the possibility of war to the chances of a new competitive product may affect the outcome. Hence the real measure of uncertainty facing the firm, as it confronts future price decisions, may be much greater than Table I suggests.

It is then easy to understand the frame of mind of merchants or wholesalers who feel that by buying on contract they are 'sticking their necks out'. However, for some very important products the state assumes

part of the risk of price fluctuation. Thus, where a purchaser bases his price to the farmer on the standard guaranteed price and any deficiency payment is paid to the purchaser an important element of price stability is introduced. Effectively the purchaser is undertaking to find from his own resources the average market price. The difference between this and his fixed contract price may vary unpredictably but it will be made up by the state. In so far as a particular buyer is able to buy in the open market at lower prices than the average, he will lose under a fixed price contract of this type. If the prices paid, before the contract system was adopted, were above average levels, he will gain. Apart from the effect on price, contract arrangements, which ensure supplies and reduce procurement costs, can be of considerable benefit to the firm which offers a contract. This type of system can be used for fatstock. It is inapplicable to cereals for which the deficiency payment arrangements mean that subsidies are paid direct to farmers.

From the farmer's point of view a fixed price contract based upon the standard guaranteed price eliminates much of the uncertainty attaching to marketing a product long after production has started. The fact that the standard guaranteed price may itself be adjusted, by some type of standard quantity regulation, implies that the burden of adjustment to overall supply and demand falls on the producer - where it belongs. Again changes in guaranteed prices due to feeding-stuff formulae gives an additional element of security for farmers producing pigs and eggs. Against such overall stability the farmer must set the loss of an opportunity to sell above the average market price. Some farmers regularly sell at more than the average price. In so far as this is due to quality, a bonus over the standard guaranteed price may offer equivalent rewards. However, where a price advantage is realised through good judgement of the time or place of marketing this cannot be maintained under the terms of a fixed price contract. For products which are marketed discontinuously this type of contract based on the standard guaranteed price may bear more hardly upon the farmer than on his customer. Most firms buying farm products are doing so throughout the year. For them the chances of the prices they pay differing far from average are slight. For the farmer on the other hand, a sale at well above the average

price for the period concerned may make all the difference between a good and an indifferent year. Clearly farmers who trust their own judgement would need some inducement before abandoning this opportunity for a contract which offered only the standard guaranteed price.

A fixed price contract transfers the market risk from the farmer to the customer. A market price plus contract leaves the farmer exposed to the basic risk of changes in the market price but offers him some specific reward for superior quality. The contract which includes no price clauses, or leaves price to be negotiated after production, formally increases the risk borne by the farmer. He is prevented from exploiting favourable market opportunities by his commitment to one buyer and, at the same time, the price he receives depends upon the good faith of his customer. In practice the risk involved may be small since most firms buying from farmers are anxious to preserve goodwill and concerned that justice shall be seen to have been done. A farmer who wishes to avoid risk to the greatest possible extent would favour a cost plus contract. This not only insulates him from changing market prices but also assures him of compensation for changes in the price of the factors of production. A crucial feature in determining what type of contract price clauses is appropriate is then the facility with which different parties can bear the risks concerned.

The difficulty of dealing with price variation diminishes as a firm's capacity to predict market prices increases and as the dangers of a downward movement in one price may be offset against an increase in the price of another product. In so far as risks cannot be avoided by either of these methods the firm must carry reserves sufficient to cushion the ups and downs in its receipts. In principle a price insurance scheme might do this, pooling the inescapable risks facing a large number of firms and holding a capital sum sufficient to protect firms from downward price fluctuations. In practice no such scheme exists and thus the firms depend largely upon their own capital reserves. These need not necessarily be held as idle cash balances. They may be employed in remunerative investments, provided these can be turned into cash quickly without incurring a capital loss. Thus the ability of a business to withstand price variation

depends upon its capacity to predict prices accurately, the diversity of its activities and the extent of its reserves.

Traditionally, farmers have borne market risks because of their ability to diversify and the possibility of living off reserves. The economic strength of a mixed farming system derived in part from the fact that while there was always something to grumble about there was usually one product for which prices were relatively good. Today this system is under pressure. First the tendency for labour, which was adaptable to a wide range of enterprises, to give way to capital, which is more specific to the enterprises for which it is suitable, tends towards a less flexible farming system. Second, modern techniques achieve low costs through high levels of output. Given the small size of many farms the number of high output enterprises per farm is limited - both by space and by capital. Finally the substitution of applied science for traditional farming lore demands a more skilled and informed type of enterprise management than before. The farmer who dissipates his energies over too many enterprises is unlikely to perform efficiently in each of them. The notion that farmers could bear risks because of a capacity to live off reserves may well seem a euphemism. It means that following bad seasons farmers could cash in upon past accumulations of fertility, that part of his stock might be sold to raise cash or in the last resort that the farmer and his family must subsist off the farm. Quite apart from the fact that such a sacrifice of reserves may involve a deterioration in the farmer's standard of living, unacceptable in modern conditions, it may also imply a loss of future productivity. In this way an adverse price situation may trigger off a downward spiral in the farm's economy. Thus, although diversity and hidden reserves are still a strong point of many farms, their importance is tending to decline.

The ability of some of the farmer's customers to bear market risks seems to have increased. Those firms which sell highly processed products are often in a position to predict the pattern of demand with some accuracy. In contrast to the almost perfectly competitive market in which the farmer sells many of his products, the large-scale processor is able to exercise a considerable measure of control over prices. This power is far from absolute but it means that the manufacturing firm is in a better position than the

farmer to indicate what future prices are likely to be. Again many of these firms are engaged in a diverse pattern of activity. Vegetable processors handle not only the full range of vegetables but also fish, meat and 'convenience' meals. Supermarkets deal not just in meat or vegetables but with the whole range of foodstuffs and a wide group of non-foods. The traditional 'bacon' factory is being replaced by the 'pig' factory producing in addition to bacon, pre-cooked meat pies, ham, fresh meat, sausages and tinned meats. This diversity may mean that a price fluctuation for one product, which would seriously reduce a farmer's income, may be borne without any marked effect on the profits of his customer. In particular, where the processing element is important, other prices than those for raw materials paid to farmers affect the overall level of profitability and reduce the proportional effect of changes in the price of agricultural products. Finally the large scale operation of many of the farmer's customers may make it easier for them to hold reserves in a profitable manner. Within limits stocks may be adjusted and investment projects accelerated or retarded to make the necessary cash available.

This argument implies that it is appropriate for market risks to be moved to some extent from the farmer to his customer. Not all the farmer's customers are in an equally good position to bear such risks. The straight-forward middleman dealing in a narrow range of goods has little influence over price, lacks diversity, even more than the farmer, and probably has very slender realisable reserves. Thus it seems sensible that there should exist a variety of price arrangements for contracts, each appropriate to a differing market situation.

The cost plus contract is most appropriate where the customer is inviting the farmer to undertake risks which would be unacceptable in a free market situation. It may be necessary, for instance, where the farmer is expected to tie his income wholly, or to a considerable extent, to the contract or where he is required to make an investment which cannot be used for any other enterprise. To offer attractive and yet remunerative contracts of this type a customer must not only be reasonably assured of the outlet for his product, but must also have a realistic

knowledge of the range of costs of production. An over-estimate of production costs will weaken his position vis-a-vis his competitors, an under-estimate will penalise the farmer.

Fixed price contracts with no adjustment for cost changes are appropriate where the contract concerns a single cycle of production and the customer has a fairly accurate picture of his selling prices, and of the probable market price for the raw material he is buying from the farmer. To hold a fixed price over a period of years without adjustment for cost changes can become increasingly embarrassing. Supplies may dry up or they may flood the customer as the fixed price becomes out of line with market prices which reflect changes in cost conditions. If a fixed price contract is offered in ignorance of selling prices for the finished product it may result in financial loss to the customer. Finally if the fixed price is far out of line with the market price for farm produce difficulties will emerge either because his rivals can buy more cheaply or because farmers, finding a higher price outside, may fail to honour their contracts.

In present circumstances many of the farmer's customers may feel unable to accept the risk element involved in a fixed price contract. For them 'market price plus' may afford a workable alternative. At its simplest this type of contract effects no transfer of price risk. The 'plus' element may be designed to reward favourable features in the famrer's product. Typically, 'plus' elements will reward level delivery, higher quality and the farmer's willingness to market in quantities and at times which economise in the procurement and handling costs of the customer. The farmer benefits from an assured outlet and knows that he is likely over time to do as well as he would selling on the open market. A more sophisticated type of market price plus contract does involve some transfer of risk. This arrangement averages market prices over a period and may add 'plus' elements as before. Here the risk element may be redistributed either among all contracting farmers, or partly between the farmers and the purchaser. If the average market price is calculated according to a weighting system which takes into account the volume of goods accepted by the purchaser at each of the open market price readings, the effect is to guarantee the buyer that he will buy at average market prices. Under this system, the risk of particularly

high or low market prices will be spread among the contracting farmers as a whole. Collectively they will receive a price which reflects the overall market situation during the period concerned, individually they will be shielded from ups and downs within the period. The level of their prices will, however, depend upon the volumes marketed at different times. Thus a buying firm would not be embarrassed by a disproportionate receipt of produce at a time when prices were low. This sort of arrangement may be acceptable when the contract does not control the time of marketing. An unweighted average price means that the farmers will receive the same amount whenever they market their produce. Again the price will reflect the overall market situation but not necessarily that of the contracting firm. Hence the firm runs a risk that the quantities marketed will arrive at times when prices are relatively low, so that the price it pays will be higher than if it had bought in the open market. Clearly if the time of delivery has been written into the contract this type of arrangement is sensible. In general, the risk transfers accomplished by average market price contracts are desirable. The farmer feels the weight of broad price movements and may be expected to adjust his production plans accordingly. At the same time he is freed from windfall losses due to short term market fluctuations.

The 'no-price' type of contract seems to leave the farmer with almost all the risk. However it may serve a useful function where no effective market price exists. Its fairness depends upon the details of the price fixing arrangements. These will vary from product to product but certain desirable characteristics should be incorporated. First, the price should be determined by buyer and seller in consultation. If they cannot agree the issue should be referred to independent arbitration. Second, the price should be the same for all farmers selling the same type and quality of product. Effectively this means it should be public. If this is so, the price risk will be

spread evenly among the contracting farmers, and no buyer will be able to exploit the weak bargaining position of one or a group of farmers. Finally the price should be related to the final selling price, not just of one customer firm, but of all engaged in the trade. This will prevent an inefficient customer passing on his processing or distributive inefficiencies to the farmers who happen to supply him.

This discussion of price fixing under contract indicates that there is no method which is without difficulty and no single arrangement which can be recommended for all situations. At the moment market price plus contracts seem attractive for those products where the open market offers a real alternative outlet. However, as a higher proportion of produce is sold on contract the market price becomes a less adequate basis. Hence 'no-price' or 'fixed-price' contracts may become relatively more attractive. From the farmer's point of view each contract must be assessed in relation to his own situation. How much risk does he wish to bear? How far does a fixed price offer cover his costs and leave an acceptable profit margin? How confident can he be that a cost plus arrangement does not estimate costs below those he incurs? To make intelligent judgements about such offers a farmer must maintain cost records which give an accurate statement of the position on his farm. This information is already essential for scientific production management and is becoming increasingly so for profitable marketing.

CHAPTER V - CONCLUSIONS

Contract farming judged by the evidence of this survey, occupies a minor role in the trading activities of most farmers. Two reasons may be suggested for this. First, some products, including milk, are covered by compulsory marketing systems which make direct contracts between the farmer and his customer otiose. Second, marketing contracts have developed most in a relatively few lines, many of which are not produced by the generality of farmers.

Four groups of products for which contracts are relatively common can be distinguished. The simplest type of contract, the forward sale, is popular for cereals, where the official guarantee system and the growth of farm storage encourage the holding of harvested crops on the farm. For products where quality is particularly important, (e.g. seeds), contracts are used partly to ensure a higher standard in the crop, and partly to guarantee a sufficient supply. New products, such as broilers and mushrooms, are commonly produced on contract, reflecting, not only the non-existence of a traditional open market, but also the need to provide additional elements of security. Finally, most, if not all, processing products, (e.g. heavy hogs, peas and blackcurrants) are produced on contract.

Some of the most important factors which have encouraged the growth of contracting arise from outside farming, but there are aspects of the current farming situation which tend to foster such arrangements. Indirectly these tendencies stem from the pressure exerted upon farm incomes as a result of government policy in recent years. As a whole, incomes in farming have not kept pace with the general level of incomes in the community. Some farmers by good management have prospered but many others, often through no fault of their own, find their incomes stationary or falling. In relative terms the farmer is worse off and as a result there has been renewed interest in methods of increasing farm income. Many of these are directly relevant to contract farming.

Much publicised have been the attempts to improve the farmer's bargaining position by the formation of groups. To a large extent these have concentrated on buying more cheaply, but many groups have sought to sell at a higher price. To take advantage of group organisation contracts have been used both to ensure discipline within the group and to give effect to agreements with customers. It seems likely, that any further growth in group selling will encourage more contract farming.

Individual farmers have sought to strengthen their position by improving the quality of their product. Sometimes this has meant production of specialised items such as seed. Sometimes it has been a question of spending extra time and effort to do an existing job better. In either case contracts with customers can offer a reward for the trouble involved.

For farmers whose resources of capital and land are limited higher incomes can sometimes be attained by greater specialisation. The establishment of one or two enterprises on a scale which permits low cost production may absorb available supplies of skill, capital and land. At this point, expected incomes may be maximised but a fall in the critical price can have a large impact on the level of farm income. Contracts offer a greater element of security both in the form of an assured outlet and a predictable price. Within the framework of a guarantee system this advantage may have diminished weight, but a reduction in the level of farm support, the imposition of stricter standard quantities, or any increase in the production of non 'review' products may well lead to a further growth of contracting.

While the pressure upon farm incomes seems to encourage contract farming, there has been a growing awareness of the common interest of farmers and their customers. The contrast in attitude between older and younger farmers was a feature of the postal survey. Young farmers, especially, recognise the value of advice from outside firms who have sound technical knowledge and whose representatives are familiar with a wide range of farming conditions. Possibly because they are better educated, farmers under 50 seemed more confident that they could discriminate between worthwhile advice and guidance based more on the interests of the outside firm than the needs of the farmer. Mutual respect at this level

may well foster the growth of contract trading.

Not all farmers found their experience of contract trading satisfactory. Some, although they had agreed to what had seemed a fair price when the contract was made, felt cheated if market prices (at the time the goods moved) were above the contract price. Some found conditions concerning quality to be too troublesome, others that production conditions involved them in higher costs than they had anticipated. Despite these problems most farmers who sold by contract continued to do so year after year. This consistency might be interpreted as demonstrating a reasonable level of satisfaction with the system of contract farming and with the way it had been operated.

The pressures towards contract trading among firms who trade with farmers are considerable. Both those who sold to farmers and those who depended upon farmers for supplies are increasingly affected by these pressures.

In response to increasing competition in the feedingstuffs industry some merchants have sought to attract farmers' custom by offering a contract outlet for livestock products. In so far as this results in greater sales of feedingstuffs, other merchants, who, at the moment, are reluctant to become involved in marketing livestock products, may be forced to follow suit. Contracts of this sort seem most likely to become important for those enterprises which use a high proportion of concentrated feed, (e.g. pigs, poultry and barley fed beef).

For many firms who buy directly from farmers several factors encourage the use of contracts. Among the more important of these are the growth of processing, the importance of self-service and the need to provide a more wealthy community with convenient and high quality food. Processors need to ensure the availability of a supply of goods at the right time, having consistently right characteristics. Retailers seem likely to be increasingly involved in a search for products which will pack well, contain little waste and be regularly available. Large scale wholesalers reflect the needs of the retailers to whom they sell. Assurance of supplies, control over quality and the ability to influence the timing of production and marketing can all help to make the wholesaler more competitive. Contracts can meet these needs.

Against these factors which tend towards the growth of contracting are a number which work in the opposite direction. Undoubtedly many of the farmers' customers have found him an unreliable businessman. An adverse turn in prices has led some farmers to dishonour the terms of their contract. Prosecution is too expensive and likely to undermine the confidence of faithful farmers. Many of the farmer's customers prefer the traditional marketing system feeling that it is more flexible, resenting the legalistic overtones of contracts and suspecting that any contract agreement is likely to lead to a loss of goodwill. Even where firms are in favour of contracts, inability to draw up production conditions which will ensure high quality in the final product acts as a major restraint.

Despite these reservations the evidence of this study suggests that the pressure towards contract trading will grow, and that a wider range of products may come to be marketed in this way. In these circumstances it is clearly important to make some assessment of the effect of contract farming upon the overall performance of the industry and hence upon the economy.

At this stage no complete balance sheet can be drawn up. Much depends upon the details of particular contracts. It is, however, possible to indicate some features of contract farming which seem likely to increase the efficiency of the industry and to draw attention to some dangers. A consideration of these issues should assist in formulating a reasoned and appropriate attitude if contracts come to occupy a more important role in British farming.

Foremost among the advantages of disciplined production through contracts is the additional security it affords. Because the farmer knows in advance what quantity he can sell, what quality is desired and what price he can expect, production programmes can be geared more precisely to the opportunities of the market. Where new products are involved, or where a major increase is planned in the total production of an existing product, such certainty of outlet may be a pre-requisite of production. All productive processes involve risk and the farmer must make allowance for this in planning his business. The more uncertain the outcome, the larger must be the expected margin if production is to be worthwhile. By reducing risks a contract may permit a farmer to produce at lower margins.

In so far as the risk is eliminated because the contractor is in a position to make better judgements about the market, this may result in lower prices to the consumer and a net gain to the community. In so far as the risk is transferred from the farmer to his customer, it may be borne more cheaply because the customer can offset a particular risk against the diversity of other risks which he bears. For example where a product represents 50% of a farmer's output but only 5% of the output of a processing firm, the purchaser could face an adverse turn in prices with more equanimity than could the farmer. This greater ability to withstand risk makes it possible for the goods to reach the consumer more cheaply.

Even for products covered by price guarantees the additional security of a contract may be important. Where extra cost and effort is needed to ensure high quality, contracts may offer the certainty of a premium market for the product. By encouraging quality in commercial rather than abstract terms, contracts may help to improve the standard of British farming.

Most contracts deal simply with one crop or one year's production of livestock. For some products, however, efficient production may require investment in equipment which has no other use and which is not exhausted in a single production cycle. Such fixed costs may be borne cheerfully where the farmer is confident of a good market throughout the life of his capital equipment. In an uncertain market situation long-term contracts may provide stability. The problem of fixing a satisfactory price may make this difficult for many products, but if they can be overcome the contract may offer an incentive for cost reducing innovation.

Apart from the benefits which may be derived from greater security contracts also have an important role in disseminating information. Some of the firms which offer contracts to farmers are not only in a position to make shrewd commercial estimates of the market situation, they are also in the forefront on research into technical and practical farming problems. The advice which they provide for farmers, especially for those who produce for them on contract, forms a very valuable means of spreading improved technology and farming methods. Even where fundamental research is not undertaken, the advisor who is in contact with a wide range of farming conditions and reasonably well versed in up-to-date scientific practices,

may be a source of new and profitable ideas.

From the purchaser's point of view basic research into the problems of quality control in agriculture is not worthwhile unless it is applied on the farm. Contracts offer a mechanism within which basic research can be applied within the existing farm situation. Initially the benefit will be shared between the farmer and the firm offering the contract. In the long run such research is of value to the whole community. Through improvements in quality, cuts in costs of production and the development of new products, the economy benefits. This aspect of contract farming may become of even greater importance as scientific method is increasingly applied to farming.

Benefits arising from improved technical information may be matched by gains arising from more informed decisions about the level of production. As processing comes to occupy an important place in the chain of food production and as the chain store supermarkets reduce the number of independent retail outlets, these concerns may be in a strong position to form judgements of market possibilities. Through contracts these judgements may influence production decisions. The more fully the production decisions take into account the pattern of consumer demand, the less wastage will occur in production and marketing.

A final credit item on the side of contract farming is its ability to assist structural re-adjustment. The role of contracts to share equipment between farmers is outside the scope of this study, but it forms an essential link in the development of group and syndicate farming. Less directly, contracts to produce offer a framework within which independent farm units may become more specialised. In this way some of the economies of relatively large farms may be achieved through the co-ordination of several small enterprises. For example contracts may make it possible for a farmer to become a specialist producer of hatching eggs or of weaner pigs. A chain of contracts can bring together specialist breeders, rearers and fatteners. Because all members of the chain have a secure outlet and supply, each may specialise, achieving economies of scale and the benefits of expert knowledge in his own activity.

Not all enterprises lend themselves to such specialisation. Cereal

production is usually easier to organise efficiently on a large than on a small farm. Even here contract sharing arrangements for storage and harvesting machinery can help to reduce costs. The most promising field seems to be among the livestock enterprises, especially those traditionally associated with small farms. Examples of contract farming in pigs and poultry already exist. Many small milk producers might benefit from a contract system which ensured a reliable supply of good quality replacement stock. Contracts cannot remove the need for structural adjustment, but they can provide a mechanism for overcoming some of the more damaging rigidities of the existing structural pattern.

Associated with the potential advantages of contract farming are some very real dangers. Not all of these operate in present circumstances but their probability must be assessed.

At the heart of many fears is the idea that the farmer may find himself confronted by a monopolistic market. If the number of outlets is diminished a farmer who fails to secure a contract may be forced to sell at a very low price. A firm occupying a monopoly position in the market might impose contract terms upon farmers which offered a lower price than would obtain in a more competitive situation.

In assessing the weight to be attached to such fears it is important to stress that the danger arises from monopoly, not from contracts as such. So long as powerful farmers' organisations in the shape of agricultural co-operatives and N.F.U. inspired enterprises, (e.g. the Fatstock Marketing Corporation) exist such a monopoly is unlikely to develop. It is true that in some sectors of the industry, processed vegetables for instance, a relatively few firms dominate the market. However, the extent to which in their own interests, they can exploit their position, is limited both by their own desire to ensure reliable supplies and by the potential competition of farmer-controlled marketing agencies.

Perhaps a more serious threat confronts the consumer. Contract trading by reducing the number of separate decision-makers would enable processors and farmers (or traders and farmers) together, to gain control over supplies. Such a control might be used to raise consumer prices above the level necessary to ensure adequate supplies. Consumer organ-

isations are in a weak position to resist such attacks. It is therefore important that governments turn an increasingly critical eye upon such monopolistic arrangements. Abuse of a monopoly position may well be restrained in order to avoid the threat of any government interference in the market.

At the moment there seems little prospect of private monopolies controlling the market. There is some pressure towards concentration in many sectors of the industry but for most farm products this is far from the point at which either farmers or consumers should become alarmed.

A more practical danger of contracts from the farmer's point of view, is that they may make his farming system inflexible. If a contract has to be honoured production must be directed to a particular market although more profitable opportunities exist elsewhere. If long term investment is required to carry out a contract, the farmer may find himself unable to switch to some more profitable enterprise combination in later production periods. The danger of inflexibility is the obverse of the advance of stability. For such stability a price must be paid. Clearly a farmer must decide, as each contract is offered, whether the advantages of security outweigh the loss of flexibility. If so, then, despite the dangers, the contract is worthwhile.

From the community's point of view the loss of flexibility between outlets may mean that some produce fails to go to the highest price markets. This involves loss, its extent depending upon the accuracy with which demand conditions in various markets can be foreseen. The danger of inflexibility in the long term is only likely to arise if contract prices fail to reflect market conditions - a danger of monopoly rather than of contracts themselves. Against these potential costs must be weighed the savings which contracts may offer through lower cost production and the more efficient dissemination of information.

As a group, businessmen who have made their livelihood from the traditional market may suffer, if a higher proportion of trade is done on contract. Auctioneers, wholesalers, market analysts and market organisers may

all find less trade to cover their costs. Middlemen are often unpopular, but their impoverishment, while of no financial cost to the community, may fairly be regarded as a social cost. In practice, they may well attempt to increase their charges to those who still use their services, thus the farmer who sells and the consumer who buys through the traditional market may be at an increasing disadvantage.

The balance sheet is inevitably incomplete. Every individual would wish to add or subtract advantages which are important to him. At this stage it seems sufficient to note that while many worthwhile benefits may accrue from contract farming, real dangers exist. For the farmer these may never materialise if the N.F.U. continues to perform its valuable watchdog function. Its ability to do so is evident from the very constructive study of vertical integration published in 1965.* The community as a whole may expect to benefit from contract farming. Its interests may be best protected by the vigorous application of policies designed to restrain monopolistic practices in agriculture as in the rest of the economy.

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* Reportof The Study Group on Vertical Integration. December 1964. The National Farmers' Union.

APPENDIX I.

Examples of Contract Agreements.

This appendix describes some of the main types of contract referred to in the text. It does not set out all the terms of any particular contract but indicates those features which are of interest in the context of this study. The terms of contracts are frequently revised. Some of the arrangements described here may no longer be current.

The appendix follows the main categories of contract used in the text. Forward sales, marketing contracts, production contracts and reourse providing contracts. Where several examples are given an attempt has been made to suggest something of the variety of terms included in contracts for farm products. There are many variations on the basic pattern described here.

1. FORWARD SALES

The following items usually feature in forward sales agreements.

(i) a description of the product

(ii) a definition of the quantity subject to contract

(iii) an indication of when and where delivery is to be made

(iv) a statement of price

One example of a forward sale contract for cereals includes each of these points and sets out, in addition, the circumstances in which the contract may become void and the procedure to be adopted in the event of a dispute between the parties. In defining the quantity of cereals to be delivered it makes provision for a 5% variation around the figure stated in the contract.

2. MARKETING CONTRACTS

Most marketing contracts include the following terms.

(i) a definition of the product

(ii) a declaration of the numbers of stock or quantity of product subject to contract with permissable ranges of variation

(iii) a statement of the times at which deliveries are to be made, with permissible ranges of variation

(iv) an indication of how prices are to be determined

(v) a clause setting out quality conditions

(vi) arrangements for transport and slaughtering costs (where these are included)

(vii) arrangements for terminating the contract

Three types of clauses are of special interest; those which determine the quantity and timing of deliveries, those which fix price and those which define quality. The following examples show some of the devices in current usage.

(a) Contract for the purchase of Cattle.

This contract is offered by a meat wholesale company.

Quantity - The producer has to state, at the outset, how many cattle he will sell to the company during the contract period of one year. A 10% variation in deliveries is permitted on either side of this forecast.

Price - The producer receives the same price as the company pays for non-contract cattle in the week that deliveries are made, plus a bonus of £1 per animal sold on contract. This bonus is only paid where the terms of the agreement have been fulfilled by the farmer.

Quality - No extra rewards are offered for quality. The cattle must be eligible for the Ministry of Agriculture's price guarantee and are graded by the Ministry.

(b) Contract for Barley Beef.

Offered by a meat wholesale company.

Quantity - The producer must specify how many animals he will sell during the year. These must be sent in 13 equal four weekly consignments. A tolerance of 10% of the total number is allowed; and of seven days at the end of each four weekly period.

Price - Fixed prices per lb. are paid according to deadweight and grade. Prices for animals up to 520 lb. dressed carcase weight are $\frac{3}{4}$lb.

higher than for the heavier beasts. There is a top weight limit of 620 lbs.

Quality - All cattle must have their calf-teeth. No animal which grades C, D, or reject, according to the Ministry's grading will be accepted.

(c) Contract for the purchase of Heavy Pigs

Offered by a meat processor (the same firm offers other contracts for heavy pigs).

Quantity - The farmer must specify in each of 13 four weekly periods how many pigs he will send. A tolerance of 10% below the contracted number is permitted.

Price - The price is based upon an agreed formula establishing standard costs of production. This takes into account feed, labour, miscellaneous cost and transport. It includes a margin of £3. 12s. 0d. per pig. In addition the producer who has supplied pigs on contract for more than two years receives a bonus based on the profitability of the processing firm.

Quality - The contractis limited to pigs in the 8½ to 11 score deadweight range. The pigs must be eligible for the Ministry's guarantee payment.

(d) Contract for the purchase of Pork Pigs.

Offered by a meat wholesaler to a farmers' group.

Quantity - The group as a whole undertakes to supply a stated number of pork pigs in an eleven month period divided into four periods. The group must deliver at least 80% of the number stated for each period.

Price - The group receives an agreed range of prices per score, which vary according to the quality standards set out in the contract. Provision is also made for variation in the Ministry of Agriculture's flexible guarantee

Quality - Quality is determined according to the Ministry's grading and Introscope measurements. If the group fails to achieve a minimum of 30% grade A pigs in one full period, the contract will be cancelled.

(e) Contract for the purchase of Lambs.

Offered by a lamb selling group to group members.

Quantity - All lambs produced by the member are to be sold via the group. He must specify how many lambs he will have for sale during the year and is allowed a 15% tolerance on either side.

Price - The contract establishes a schedule of prices based on the Ministry of Agriculture's standard price. To this price agreed adjustments are made according to the weight and grade of lambs marketed.

Quality - The schedule of prices offered by the group discriminates in favour of lambs below 40 lbs. deadweight and in favour of Grade A lambs - according to the Ministry's grading system.

(f) Contract for the purchase of Pork Pigs negotiated on behalf of group members with a pig factory.

Quantity - The producer must state number of pigs to be delivered in quarterly periods for at least one year, and, at most, two years ahead. A tolerance of 15% is allowed. In each quarterly period the number of pigs contracted must be at least 80% of the number in the preceding period.

Price - A minimum price is stated each quarter for 12 months ahead. Prices are subject to Feed Adjustment, P.I.D.A. levy, Flexible Guarantee and the Price Review. Producers receive a level delivery bonus of 2/6d. per pig.

Quality - The contract is restricted to pigs graded Q, AA, A or B within the weight range 4 score to 5 score 19 lbs. It excludes excessively fat or coloured pigs.

3. PRODUCTION CONTRACTS

Production contracts include terms which affect the methods of husbandry used by the farmers. The following terms are characteristic of most production contracts.

(i) a definition of the product

(ii) a statement of the quantity subject to contract

(iii) an indication of the time at which deliveries are to be made

(iv) clauses setting out conditions of production

(v) a statement of the prices to be paid

(vi) arrangements for determining quality

(vii) permission for the purchaser to have access to the farm in order to ensure that production conditions are observed

(viii) arrangements for the transport of the product when it leaves the farm

(ix) circumstances in which the contract can be terminated

The features of production contracts which are of special interest in this study are those clauses which regulate quantity, price and quality and production conditions. The following summaries indicate how these operate for a variety of products.

(a) Contract for the production of cereal seed.

Offered by a seeds merchant.

Quantity - The farmer agrees to grow, on a particular field, a stated acreage of a particular kind of cereal. The whole of the crop is to be sold to the merchant.

Price - The price is to be not less than that laid down in the Wilts., Hants. and Dorset Inspected and Sealed Corn Scheme for the harvest year concerned.

Quality - Only stock seed supplied by the merchant is to be used. The seed, when delivered, must be of less than 17% moisture content, of a good colour and appearance and free from Wild Onions, Wild Oats, Wild Radishes, Shepherd's Needle or Wild Tares.

Production Conditions The crop must be grown on a field which has not grown cereals in the previous year (except with the previous consent of the merchant). The farmer must allow the merchant access to the field in order to inspect operations or to rogue the crop. The farmer is responsible for seeing that the equipment used for drilling and harvesting is thoroughly cleaned before use.

(b) Contract for calf-rearing

Offered by a beef-fattener in association with a major feeding-stuffs firm.

Quantity - The rearer contracts to deliver 12 week old calves in stated numbers, at intervals of a fixed number of weeks. The contract runs for a 12 month period, and thereafter is subject to 12 months notice on either side. Variations in particular deliveries of up to 10% are allowed, but over the 12 month period the deliveries must total the full number contracted.

Price - A fixed price per lb. is to be paid where the calves are collected by the buyer. The buyer agrees to maintain a price sufficient to give a stated net profit. In order to ensure this the price paid is to be adjusted according to the average cost of production calculated from cost sheets kept by all calf rearers who sign the contract.

Quality - On delivery the calves are to be inspected by a designated Veterinary Surgeon for health and fitness.

Production Conditions The rearer must use a particular brand of feed (produced by the feeding-stuffs firm). He must keep an agreed form of cost record. He must notify a designated Veterinary Surgeon of any disease "or trouble with the calves" (sic.). He must allow the accredited representative of the buyer to have access to the calves.

(c) Contract for the production of Weaner Pigs

Offered by a Co-operative Society.

Quantity - The farmer must state the number of sows, and boars he keeps, specifying their breed. He must forecast how many weaners of each breed he will produce during the year. Six months notice must be given to end the contract.

Price - The farmer is offered a fixed price per lb. which will only be altered in the event of major changes in the price of feed or the structure of pig prices.

Quality - The farmer undertakes that none of the pigs collected by the Society will be rigs or runts, and that no pig which is suspected to be diseased will be marketed.

Production Conditions. The farmer must use a feed approved by the Society. He must not use any swill. Ad Lib creep feed and water must be maintained in the farrowing pen. Breeding stock of which the progeny fail to grow satisfactorily must be replaced, all replacement stock being subject to the approval of the Society. All male weaners must be castrated before they are five weeks old, all piglets must be treated against anaemia and internal and external parasites. Any outbreak of disease must be reported to the Society and a veterinary inspection paid for if required.

(d) Contract for the production of green peas

Offered by a processing firm.

Quantity - The number of acres of peas is specified. The company reserves the right to restrict the quantity of peas arriving at the factory in any one period of 24 hours to a stated tonnage.

Price - A schedule of fixed prices is attached to the contract.

Quality - Prices are based upon a measurement of tenderness. Any crop which falls outside certain stated limits is not eligible for the contract price. Any consignment which, when it arrives at the factory, is defective because of disease, pests, toxic residues of pesticides, fungicides or herbicides or for "any other reason unsuitable for processing by the Company" may be rejected.

Production Conditions The peas must be sown at times determined by the Company. They must not be sown in any field in which peas, vetches, field or broad beans have been grown in the past three years. The farmer must take measures to control weeds, insects or fungi as determined in consultation with the company's representative. Harvesting must be carried out at times agreed with the company.

(e) Contract for the production of Blackcurrants

Offered by a processing firm.

Quantity - The farmer states the acreage of blackcurrants planted and the number of each variety of bush. The whole of the crop from these bushes is to be sold to the processor for a ten year period.

Price - A fixed price is paid with variation based upon the minimum agricultural wage rates.

Quality - The processor reserves the right to discard any fruit which is fermenting or mouldy; or "in any other respects unsuitable for making the processor's product".

Production Conditions The farmer must obtain the consent of the processor before spraying the bushes, (apart from certain routine sprays). He must co-operate with the processor's fieldsman in order to obtain the maximum yield from his crop. He must consult with the fieldsman concerning the most suitable state of ripeness at which his crop may be picked.

(f) Contract for the production of hatching eggs.

Offered by a large scale producer of day-old chicks.

Quantity - The farmer agrees to sell to the company "such number of eggs as the company shall require". The number of stock birds is not stated in the contract but depends upon the agreement of the farmer and the company. The farmer is not allowed to dispose of stock birds or eggs without the consent of the company.

Price - The company agrees to pay for eggs required for hatching, a bonus of 1/- per dozen over the price for first quality eggs paid by a packing station.

Quality - A further bonus is paid in relation to the hatchability of the eggs.

Production Conditions The farmer must rear the chickens in isolation from other birds. He must feed rations of a type approved by the company. He must provide such veterinary treatment as the company requires. He must,

if needed, help the company's fieldsman in carrying out any culling, vaccination or blood-testing the company requires.

4. RESOURCE PROVIDING CONTRACTS

Resource providing contracts involve the purchaser in providing part of the factors of production. In the following examples the resources provided are stated, the arrangements made for payment and the production conditions which the farmer is expected to follow.

(a) Contract for fattening store cattle.

Offered by a wholesale meat company.

Resources provided - The company provides store cattle, which remain it's property. If the farmer buys his feed from a particular merchant, the company will advance the finance needed to pay for it.

Payment - The farmer is paid a fixed rate per lb. of weight gained to slaughter. If the animal dies, the cost is shared between the company and the farmer. Where feed is provided its cost is deducted, plus an interest charge, from the final receipts due to the farmer.

Production Conditions - The farmer agrees to follow husbandry practices approved by the company.

(b) Contract offered for broiler production.

By a feeding-stuffs merchant.

Resources Provided - The merchant provides feed and chicks which remain his property.

Payment - The farmer is paid a basic rate of 10d. per chick for all birds graded A or B by the packing station named in the contract. When the birds are sold the merchant deducts from the selling price the basic payment, plus the cost of the chicks and feed and plus any additional expenses which have been incurred with the agreement of the farmer. The remaining profit is then divided equally with the farmer. If there is no profit the merchant bears the loss.

Production Conditions - The broilers are to be housed at a stated density. The number of feeders and drinkers to be used are specified. If disease occurs the merchant must be informed and retains the right, in

the event of dispute, to decide what treatment shall be given.

(c) Contract for fattening sheep

Offered by a wholesale meat company.

Resources Provided - The company provides the sheep which remain its property.

Payment - After slaughter the company deducts from the sale price the cost of the sheep plus a service charge. If the sale price does not cover the cost of the sheep plus the service charge the deficiency must be made up by the farmer. If animals die or are lost the farmer must pay the cost price to the company.

Production Conditions - The farmer is required to feed and care for the sheep in a proper manner. He must keep them free from worms, innoculate against pulpy kidney disease and (for housed sheep) against pneumonia. He must permit the company's representative to have access to the farm.

APPENDIX II

Calculation of inescapable price variation Chapter IV Table I.

1. Method

(a) Deviations between rolling averages of market prices and actual market prices were calculated at weekly intervals for each of the products concerned, over a six year period. January 1959 - December 1964.

(b) The rolling average was calculated by taking the average of two overlapping 52 week periods as follows:-

$$\frac{\text{week 1 to 52 + week 2 to week 1 of the following year}}{104}$$

giving a trend reading for week 27. (This gives readings for a five year period from information relating to six years).

(c) The trend readings were then deducted from the observed prices for each week. These deviations from trend were then averaged for equivalent weeks in each of the years concerned. This average deviation from trend has been described as a 'seasonal' element.

(d) The seasonal deviations were deducted from the observed prices to give a seasonally corrected figure for price variation. From these seasonally corrected figures the trend reading, calculated in (b) above, was deducted giving a residual variation which could not be ascribed either to season or trend.

(e) Table I in Chapter IV shows in

column B - The average residual variation over five years.
" C - The standard deviation of residual variation for the five year period.
" D - The percentage of unit price represented by the standard deviations of residual variation for each product.

2. Source

(a) Market prices - Ministry of Agriculture weekly market reports.