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COMMISSION OF THE EUROPEAN COMMUNITIES

INTERNAL INFORMATION on AGRICULTURE

Vertical integration and the use of contracts in agriculture

IV. Synopsis

COMMISSION OF THE EUROPEAN COMMUNITIES

DIRECTORATE-GENERAL FOR AGRICULTURE

Directorate Agricultural Economics – Division « Balance-sheets, Studies, Statistical Information »

APERÇU DES PRINCIPAUX ÉLÉMENTS DE L'ÉTUDE

INTEGRATION VERTICALE ET

CONTRATS EN AGRICULTURE

IV. APERCU SYNOPTIQUE

Série :"Informations Internes sur l'Agriculture" N° 145

Cette étude vient de paraître en langues française et anglaise. Il n'y a pas d'édition allemande.

Dans le cadre de son programme d'études, la Commission a chargé un groupe d'experts d'effectuer une étude sur les possibilités de l'intégration verticale dans l'agriculture.

L'étude concernant la R.F. d'Allemagne a été déjà publiée dans la série "Informations Internes sur l'Agriculture" sous le n° 106, le rapport pour l'Italie sous le n° 119 et celui pour la Belgique sous le n° 144.

Le présent volume contient un aperçu synoptique des principaux éléments qui peuvent être dégagés des rapports qui ont été préparés pour les six anciens Etats membres, tout en prenant en considération les expériences acquises dans les nouveaux Etats membres et quelques autres pays notamment les Etats-Unis.

Le rapport contient les chapitres suivants :

- Intégration verticale dans l'agriculture et dans les autres secteurs;
- Faits nouveaux concernant l'intégration dans l'agriculture, l'industrie alimentaire et les industries liées à l'agriculture;
- Les arguments en faveur des relations contractuelles en matière de commercialisation agricole;
- Arguments en faveur de l'intégration verticale par propriété;
- De nouveaux types de relations commerciales pour les organisations de producteurs;
- Situation actuelle de l'intégration verticale dans le secteur agricole dans les pays de la CEE élargie;
- le rôle des organisations de producteurs;
- Conséquences sur les politiques à mettre en oeuvre.

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INTRODUCTION

The present study on vertical integration and contracting in agriculture was carried out in 1972 and 1973 by a group of experts, within the framework of the study-programme of the Directorate-General for Agriculture.

The present document gives a synopsis at Community level and is partially based on reports prepared for each of the original Member States(1). It includes as well some references to the situation in the new Member States. This synopsis has been prepared by

Mr. Michael BUTTERWICK
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who is solely responsible for its content.

The division "Balance-sheets, Studies, Statistical Information" and "Conditions of Competition in Agriculture and Market Structures" of the Directorate-General for Agriculture have cooperated in this project.

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Original : English

This study only reflects the opinions of the author which are not necessarily those of the Commission of the European Communities and does not prejudice its future position on this subject.

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(1) Have already been published in the series "Internal Information on Agriculture" :

n° 106	- I. German F.R.	(German and French texts).
n° 119	- II. Italy	(Italian, French and English texts).
n° 144	- III. Belgium	(Dutch text - French in preparation).

Foreword

This report on vertical integration and the use of contracts in agriculture was initiated by the Commission of the European Economic Community before the enlargement of the Community by the addition of the three new member countries. Consequently the main emphasis is on the situation in the six original member countries, in each of which a detailed investigation has been made. This report is designed to act as an introduction to the detailed studies for the six original member countries and to provide, where appropriate, a synopsis of some of their contents.

Michael BUTTERWICK

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VERTICAL INTEGRATION IN AGRICULTURE AND OTHER INDUSTRIES.

1 The use of the term "vertical integration"

What is vertical integration? In the early stages of the work the experts concerned with this study spent many hours discussing what was the most appropriate definition of this expression. In the process some clarification of thoughts on the subject was achieved, though unanimity of viewpoint on the best definition of vertical integration was lacking. In particular the author of the report on the situation in the Netherlands preferred to regard participation by farmers (in joint ventures) as extending to all activities of co-operatives in which farmers own shares as members of the co-operatives, a very much wider interpretation than was adopted by the other experts. In this report vertical integration is used in a loose sense to cover all harmonisation between successive stages of the production/marketing/processing/ distribution/ retailing chain, which is brought about by internal or administrative action as opposed to external economic forces, particularly market prices. By this definition contracting is included as one of the arrangements for achieving vertical integration. The text makes it clear when it is intended to refer to complete integration under one ownership, the more restricted sense in which the term is sometimes used.

The processes of vertical integration, which so many farmers appear to believe influence only themselves, are everyday occurrences in other types of production or commercial activity. It is important at the outset to establish this very simple point. In all industries and trades decisions have to be made directly related to these subjects. Farmers often give the impression that the impact of vertical integration is of peculiar significance to themselves, that this phenomenon was contrived by some malevolent deity specifically to plague them. Nothing could be further from the truth.

Few discussions on issues of policy in any form of economic activity can occur without vertical integration becoming one of the key subjects. This statement may appear surprising to many industrialists who do not normally employ this term. But whether or not the expression "vertical integration" is used, in fact discussions on a wide range of business subjects are concerned with integration. Some of the main policy issues discussed by businessmen, whether in formal meetings in the Board room of large corporations or in casual discussions in small family businesses, are directly comparable to the vertical integration issues affecting agriculture which are discussed in this study.

2 Vertical integration outside agriculture.

It might be useful to mention a few examples of problems of vertical integration outside agriculture. A manufacturing industry, like the motor car industry, has to obtain supplies, some in the form of raw materials, but mostly manufactured components, and assemble and manufacture them before they are available on the market. Any manufacturer has to be concerned, of course, with the cost of his purchased inputs, but he also has to decide how he is to obtain them - on contract, by long-term friendly arrangements with suppliers designed to promote preference in times of shortage, by "shopping around" in the market, or - to go to the other extreme - by ownership of the source of supply. When considering, for example, how to obtain clocks for his cars a manufacturer would have to take into consideration which source of supply, whether owned or not, would in the long-term be cheapest, most dependable and most likely to provide the advanced designs that are required. He would have to take into account his own managerial and financial resources. As a clock maker he would become a potential supplier to his competitors; would this be desirable? How would he be able to obtain supplies if there was an industrial dispute in his integrated supplier? In the case of components received from an integrated source how is it possible to be sure that the cost, quality, etc. are in fact as attractive as might be available as a result of bargaining with other suppliers? Downstream integration in the direction of marketing presents similar problems. Manufacturers have to ask themselves questions such as: are we to own our outlets, to contract with them, to attempt to force independent outlets to act exclusively for ourselves, or to sell to all possible customers? The problems of an organisation in a service industry, a restaurant or a garage, are of a similar kind. Limiting ourselves to considering only supply problems, a restaurant or a chain of restaurants, in deciding how to obtain vegetables, might have to choose between owning its own source of supply, contracting with a wholesaler, or buying day to day at the markets. A garage, dealing primarily with high capital investment products, such as petrol, tyres, cars, etc. is less likely to get involved in ownership integration, but supply contracts and their terms and conditions may well be important.

Integration through outright ownership of one of the adjacent links in the chain clearly presents the integrator with financial and managerial problems whatever industry is in question. The type of integration which is much more common, close working relationships leading to the adoption of the role of traditional supplier and long-term customer, also involves some difficulties. One clear advantage is provided if the supplier knows intimately about the purchaser's requirements. He can then adapt his production procedures to these requirements. As a result unit costs may be lower and selling costs reduced. Most firms try to build up one or more relationships of this kind and attempt to obviate the main disadvantage - excessive mutual interdependence - by restricting the amount of their production which is disposed of in this way.

That there are economic benefits to be obtained through integration (vertical or horizontal) is undeniable. One need only study any prospectus for a corporate merger to realise how important a part this plays in the policies of acquisitive companies. As has already been indicated, with vertical integration selling costs can be reduced, and under full ownership eliminated. Given exact prior knowledge of the requirements of the downstream customer or the supply position of the upstream link, economies are likely to be obtained in production runs and stocks can be kept at a minimum. Through horizontal integration, which in agriculture may be achieved by cooperation, it may be possible to make savings in research and development expenditure.

3 The objectives of vertical integration

Before turning to the special position of agriculture it might be useful to summarise what are the main motives which influence firms to integrate vertically. These motives can be discussed under the following headings.

(i) Lower operating costs. Any of the main items of a business's costs can theoretically be reduced through vertical integration. Savings can be made on purchasing through more exact knowledge of future requirements, on stocks which may be kept at a lower level, on manufacturing through specialisation and longer production runs, and on selling, costs of which can be reduced to nil in a fully integrated system. These savings can be very significant.

(ii) Reduction in market risks. Integration arrangements can have important implications on risk-bearing and risk-sharing over market prices. Through contracts at pre-determined prices both buyer and seller can hedge their market risk. Even forward contracts without fixed prices can introduce an element of risk hedging. There may be a loss to set against the benefit of this operation. A company that sells all its production to one customer at a fixed price is not likely to obtain as large a return as another who plays the market, dealing with a large number of customers. On the other hand the latter is, of course, at greater risk.

(iii) Rapid exchange of technical knowledge. An integrated company enjoying long-term relationships with other companies up or down the chain is more likely to be prepared to provide technical assistance and disclose freely what are its own technical problems. With ownership integration an even freer exchange of information can be obtained.

(iv) Optimal use of limited managerial resources. Well developed management experience in one link in the chain can be rapidly used in an anterior or posterior link. Given the existence of talented management which is not being fully utilised, a company can deploy this talent either horizontally or vertically to its own benefit and that of the newly integrated organisation.

(v) Improving market position. A company selling in a market dominated by a few large buyers and lacking competition might decide that the best way to improve its market position would be to integrate forwards and so disturb this oligopsonistic market.

(vi) Investing company funds. A company with surplus funds arising from profits or as a result of sales of assets has to decide where to invest them. If the funds are left in cash or readily marketable securities the company itself becomes vulnerable to a take-over. The alternatives for investment are usually seen as horizontal integration, vertical integration, or diversification into a new field. Even without any integration arrangements a company often knows a lot about its suppliers and customers, and frequently the company's directors believe that superior management can be used to benefit an adjacent link, which therefore becomes a natural target for ownership integration.

4 Factors peculiar to agriculture.

These factors influencing vertical integration are all important to agriculture, but there are a number of additional influences which are more or less peculiar to agriculture. The principal ones are noted below.

(i) It can be argued that farmers and their organisations are prompted to move towards vertical integration because of the difficulty of any large-scale horizontal organisation of agriculture, especially on a full ownership basis. In so far as supply control can be seen as an alternative to vertical integration as a solution to agriculture's income problems, it must be recognised that few agricultural products lend themselves to efficient supply control on a large scale.

(ii) For many agricultural products it is difficult, and in some cases it is impossible, to create effective brand identification, and in this way to exercise control over selling prices. The ever-increasing market in Western Europe for packaged foods is beginning to facilitate brand identification, leading to better possibilities of control over selling prices. Nevertheless some agricultural products, including butter and cheese, wine, and some fruits, which are produced in limited and defined areas, can benefit from brand identification. In future the number of products which can be differentiated in their marketing may well increase.

(iii) Problems of capital and credit. The difficult financing problems of agriculture, which have led governments of some countries to offer special terms for agricultural lending and create special banking institutions, can be very relevant to vertical integration and the use of contracts. Companies selling to or buying from farmers, which may have easier access to capital and credit, can offer financing facilities as part of an inducement to the making of integration arrangements.

(iv) Just as it is right to take account of the personal motivations of business men in corporate integration policies, so one must also reckon with the special motivations existing among leading members of farmers' organisations, notably co-operatives, which are likely to play a part in promoting, or inhibiting, integration arrangements. Both managers and directors of agricultural co-operatives possess personal ambitions which are relevant to the part played in vertical integration by these organisations. It is hardly surprising that they are generally antagonistic to schemes sponsored by non-agricultural interests which they tend to regard as threats to their own well-being.

(v) Agriculture operates in a somewhat different social environment from that of other activities. The wish to remain independent, often passionately expressed, the sensitivity to any loss of status, and the consequent antagonism to vertical integration, exist elsewhere, but they are probably strongest in agriculture. Here one can distinguish between the responses of the more prosperous farmers, who are more inclined in the face of vertical integration to opt for collective action, and the poorer farmers who may be more inclined to see contracts as a means of improving their economic position. But, generally speaking, most farmers are still suspicious of vertical integration.

(vi) Despite developments in factory farming agriculture has still not become fully comparable to a manufacturing industry. It is probably less easy, at least in some countries, for a farmer to be sure of the quality of his supplies, (e.g. of calves and piglets), than it is for a manufacturer ordering his components. Despite specialisation quality control still presents problems in agriculture, and this influences the form and extent of contracts in agriculture.

(vii) By its very nature farming has a special problem in receiving, absorbing and adopting technical knowledge as rapidly as possible. One of the more important arguments for vertical integration is that it can lead to an increase in the speed with which technical knowledge is adopted to the benefit of agriculture and its customers. Failing vertical integration farmers may adopt technical innovations so slowly that when put into practice they may be out of date compared with new developments. By contrast companies with advanced R & D departments, such as Birds Eye in Britain, can induce rapid technical advances with farmers contracting with them.

(viii) Account must be taken of the non-economic factors influencing land prices. The high cost of land and the relatively low return on it, has been a powerful cause of the development of intensive farming. These products are most suitable to marketing systems characterised by vertical integration.

(ix) In recent years perhaps the two most important influences on agriculture throughout the Community have been the substitution of capital for labour and the growth of specialisation of production. These have made more attractive the risk-sharing possibilities offered by vertical integration which are discussed later in this report.

(x) In many parts of Western Europe agriculture has emerged only recently from a state in which subsistence was a significant element in the farming economy. Large-scale marketing of agricultural products is a comparatively new problem for most farmers.

(xi) Similarly, it is only fairly recently that agriculture has been in a position to be able to control quality and forecast quantities, both pre-requisites for contract production and the development of an efficient marketing system.

(xii) The farm products for which demand has increased most rapidly in recent years, such as broilers and veal calves, have been essentially new products, involving the development of new production and marketing techniques.

(xiii) The quality of rural education has tended to lag behind what is available elsewhere. A certain level of education is required before farmers can effectively take part in contracts. This level has, at least until recently, not been generally available in Western Europe. There are, of course, very big differences in the level of technical ability in agriculture in the EEC countries. But at least it is clear that not all farmers are competent to take part in integration arrangements.

(xiv) Changes in the scope and structure of the agricultural input industries (producers of feed, breeding stock, farm buildings, etc.) are relevant to vertical integration and contracting, particularly those affecting the compound feed industry, which has been closely concerned in these developments. These changes, notably the tendency towards concentration, are discussed in a later chapter.

(xv) Likewise, there have been very rapid changes in the demand for food associated with rising living standards, use of leisure, different techniques of food production, changes in retailing, etc., which are described in greater detail later in this report. Changes in the demands of the food industries on agriculture have been an important influence on the growth of vertical integration, these changes being exerted either directly, or (more commonly) via organisations engaged in the first stage of transformation of farm products - slaughterhouses, packing stations, grading plants, etc.

The above features - and there are doubtless others - distinguish agriculture from other forms of economic activity in the development of vertical integration. Some tend to promote it and others inhibit it. It is important to appreciate these differences between agriculture and other industries in order to understand the forces behind the integration process, but it is equally important to realise that the basic pressures leading to integration - the need to secure supplies of inputs, the need to obtain dependable outlets for products, (both being related to risk bearing) and the need to find suitable opportunities for investing surplus funds apply to all business activity. The main reason why vertical integration applied to agriculture is currently such an important topic is because standards of business management, commonly employed in other industries, have only recently begun to be generally used in agriculture, a point that will be developed in the next chapter.

II

DEVELOPMENTS IN AGRICULTURE AND THE FOOD AND AGRICULTURAL INDUSTRIES RELEVANT TO INTEGRATION.

1. Background to the present situation

Nowadays most people take for granted a rapid pace of change in economic life. Developments in new industrial techniques, the continual introduction of new consumer goods, and changes in corporate structure (well-known companies with household names being taken over through mergers) are now accepted as features of the world we live in. But this acceptance of change, and expectation of future change, is relatively new. Profound and rapid changes applied to agriculture are especially novel. About a hundred years ago farmers in Western Europe had little reason to expect any considerable change in the techniques of their trade or in their way of life. In the 1870's an intelligent farmer might have foreseen a range of technical developments, the application of power to agriculture, for example steam engines used for threshing, and the possibilities implied by the development of machinery for harvesting. In most respects, however, agricultural practices at that time were not radically different from those used one or even two hundred years previously. The agricultural historian could point to some important changes that took place in farming prior to 1870, but in most respects farming practices then were set in an accepted frame. There was still a vast amount of hand work in farming, both in livestock and arable production - milking by hand, shifting farmyard manure without mechanical aids, scything, weeding, and so on. Lacking the development of the agricultural input industries, notably compound feeds, fertilisers and herbicides and p. esticides, the farmer was largely self-reliant in respect of inputs. Typically he used his own seed corn kept back from the previous year, fertilised his fields with manure produced by his own stock, and fed his animals on hay, kale, beet, and other products which he had grown and stored himself. A hundred years ago the growth of industrial towns in Western Europe had created some need for agricultural marketing, but subsistence was still an important part of farming. Many farmers still slaughtered their own livestock, ground their own flour, and made their own butter. This primitive kind of integration was still rather typical of agriculture throughout Western Europe.

Modern agriculture operates in an entirely different economic environment. The features of this new environment most relevant to the subject under discussion are the development of the agricultural input industries, the growth of market orientation in farming, and increasing specialisation and intensification of farm production.

2. <u>The farm input industries</u>.

In most parts of Western Europe agriculture could not now function without supplies drawn from its supporting industries. Farmers have passed back to specialised firms the production of many of the inputs which previously they made themselves, or otherwise managed without. A wide range of farm inputs - breedingstock, seeds, compound feeds, chemicals, farm buildings, etc. are now sold to farmers by companies engaged in the agricultural supply industries. As these companies have steadily improved the quality and reliability of their products the case for farmers purchasing them has become stronger. In modern agriculture it rarely makes economic sense for a farmer himself even to manufacture the simplest requirements like wooden posts for fencing.

Farmers have therefore become very significant buyers of a large number of requirements. In Britain, for example, the cost of purchased animal feeds and fertilisers alone is higher than net farming income; in 1972 a total of £865 mn. compared with £790 mn. Over the years farmers have been compelled to become more sophisticated purchasers, conscious of relative prices and the importance of credit terms. Realisation of the importance to them of farm requirements has been a major reason for the development of agricultural co-operation. In the enlarged Community, with the exception of Britain and Ireland, the requirements trade is dominated by co-operatives which are also normally engaged in marketing farm products. This overlap in the supply of requirements and marketing of produce, a feature of great relevance to vertical integration, extends to the private trade. Companies engaged in the manufacturing of compound feeds (such as Spillers in Britain and Sanders in France) have also been drawn into agricultural marketing. Briefly, the process has consisted of the feed manufacturer offering credit to the farmer in order to get his business, contracting over a period in pursuit of security of outlet and in order to lower selling and distribution costs, finding itself thereby more closely involved in the farmer's business, and then needing some control over the finished product in order to protect its credit position. Of the input industries it is mainly feed manufacturers due to the regularity and significance of their sales to farmers, that have become involved in integration arrangements. But other examples exist of close relationships between agricultural producers and suppliers, such as that between veal production and manufacturers of milk replacers in France. Producers of breeding stock and farm buildings have also become involved in vertical integration.

A few years ago feed manufacture seemed to be a key element in vertical integration in all the countries of the enlarged EEC. Companies were contracting actively on sales of feeds to farmers particularly those producing eggs and broilers. The process seemed to be associated with low profit margins in the compounding industry. It appeared to some people that the feed industry was on the verge of "taking over" agriculture. More recently, however there has been some reversal in this trend as companies have begun to look more critically at the rates of return earned on their direct investments in agriculture or obtained on the credit extended to their contracted customers. For example in France Provimi has withdrawn from egg production, and in Britain J. Bibby and BOCM-Silcocks have reduced their direct stake in pig breeding. It seems unlikely that there will be any major new upsurge in vertical integration by the input industries, least of all on a full ownership basis.

3. Market orientation and farm incomes

The second point - the increase in the market orientation of agriculture - requires little comment. The fall in the proportion of the working population in the EEC engaged in agriculture (by roughly half since 1958) combined with the massive improvement in agriculture's potential in higher yields per hectare has reduced the subsistence element in agriculture to insignificant proportions. This can be very simply illustrated. The production of a modern one-man dairy unit (with 80 or 90 cows in milk) might be about 1,500 litres a day. To be economic a commercial egg producer unit may have to deliver around 5,000 eggs a day. Clearly in neither case can the amount retained by the farmer for consumption by himself and his family amount to more than a trifling proportion of total output.

Not only do farmers have more to sell off their farms, they also become more conscious of what they obtain for their increased production. When larger amounts of produce are being negotiated, small differences in price per quintal amount to significant sums. Farmers have become better educated in marketing, more conscious of the need to offer produce attractively and in graded qualities. The new market orientation of agriculture is closely connected with the third point - specialisation and intensification of production. These important tendencies can be seen in varying degrees throughout European agriculture. The more advanced is the state of agriculture the more rapid is the development of these trends. But all over Europe farm production is gradually moving into fewer and larger hands. In future the movement of farmers off the land may be slower, perhaps 1 per cent to 2 per cent a year, but it shows no sign of stopping. Concentration of production is proceeding faster than the exodus of farmers from the land. In all sectors of farming there is evidence of large increases in output per man and per farm. For example in Britain the average production of milk per dairy farm is now 131,000 litres compared with 81,000 litres ten years ago. The advantages of specialisation are becoming increasingly accepted by farmers. The mixed farm, which until recently has typified European agriculture, is giving place to specialised units on which farmers concentrate on one or two main products.

4. Specialisation in farm production

Specialisation is occurring as rapidly in livestock production as in arable farming, of which continuous cereal growing is a typical example. As technical improvements are made in hygiene control, housing, and livestock feeding, the economic unit for pig, poultry, and dairy production is continually rising, giving rise to new problems, notably in effluent disposal. Indeed, in livestock production the farmer appears to be operating on a moving staircase as the economic unit which permits him to survive and prosper is for ever moving further away from his grasp. In the most intensive forms of livestock production, poultry and pigs - the so-called "concrete farming" - specialisation within the enterprise has been common for many years, farmers buying in day-old chicks and piglets for fattening from specialised units. For instance in France traditional farm production of eggs now only constitutes some 25 per cent - 30 per cent of deliveries. Specialisation has also affected the dairy industry, many farmers selling off their calves and buying back in-calf heifers as replacements to their herd. This trend is likely to continue in the future, particularly as labour becomes in short supply. Mechanisation will then become still more important in both arable and livestock production. It will then become even more apparent than now that a certain scale of enterprise is required in order to justify the necessary investment in machinery. It is likely that in the near future few farmers will be able to justify operating more than two enterprises on their farms. From arguments of this kind has arisen the search for methods of encouraging production co-operation such as the GAEC's in France.

5. Consequences of these trends

There are three important consequences of these trends relevant to vertical integration. First, specialisation and intensification leads to higher output per hectare. This is likely further to exacerbate the problems of orderly disposal of some agricultural products in the EEC, for which self-sufficiency has already been reached or surpassed. Secondly, the individual farmer, producing and marketing larger quantities of each individual product, will require larger credit facilities to provide the total capital required in his business. He thus becomes more aware of the need to earn an adequate return on his total investment. Typically, farmers are more conscious of the interest cost on actual borrowings, since this has to be paid in cash, than of the theoretical interest required in relation to their own investment, an exercise still rarely performed by farmers. The higher the ratio between borrowings and farmers' own capital, the more significant become the prices obtained for farm products. A farmer taking up commercial credit on a large scale has to obtain a certain price in order to cover his interest costs. This price need not necessarily be the maximum price available. With a high level of borrowing a farmer becomes more interested in market hedging and therefore in contracting forward on his sales.

The third consequence of specialisation is of great significance to vertical integration. Farmers have limited time and ability to make themselves experts in many branches of agriculture. It is hard to keep track of all the technical developments affecting, for example, pig production, dairying, and cereal growing. Indeed this difficulty of mastering all the diverse ramifications of agriculture is itself one of the causes of specialisation. One of the most vital aspects of agricultural knowledge consists in quality control. Given specialisation a farmer is better able to keep close control on the quality of his production, and also is able to be confident in advance that he will be able to produce to specification. In this way he becomes an interesting partner in vertical integration to the food processing industries. Finally, the substitution of specialisation of production for mixed farming creates greater potential market risks for farmers since their incomes become dependent on returns from sales of fewer products. Hence contracts become more welcome if they introduce greater stability of prices and revenues.

6. Farmers' income objectives

Underlying much of the above analysis of the trends in agriculture relevant to vertical integration is the income requirement of farmers. The principal reason that farmers adopt new techniques, intensify their production and orientate it towards known market outlets is to protect and enhance their net incomes. Like anyone else farmers want to improve their incomes and to avoid falling behind the rate of increase in other occupations. It is difficult, if not impossible, to generalise about their income objectives, but at least it seems certain that many do not attempt to maximise incomes in the short run. Other factors play an important part. For example, in countries where the farming industry is taxed on much the same basis as other occupations, farmers may wish to try to minimise their tax liability. They may therefore be inclined to run their farm businesses in order to yield a certain income and no more. Others may be mainly concerned with building up the capital value of their enterprises. The possibilities offered by integration arrangements to pre-fix incomes and to mitigate market risks may well fulfil an important, though sometimes unexpressed, need among farmers. Some farmers are natural speculators, but a great many others are not. To them it may well be very attractive to operate in an environment in which both costs and returns are under as much control as possible. This is something which forward contracts may help to provide. Unfortunately very little precise information is available about the income objectives of farmers in the EEC, but it is perhaps significant that in a recent survey in Britain 84 per cent of all contracting farmers gave income stability as an advantage to be gained from contracting.

7. The main partners in integration

Vertical integration in agriculture being concerned with relationships between the various links in the production/marketing/processing chain, it is important to take account of the situation of the industries that lie on either side of agriculture, notably the farm input and food processing industries, including organisations engaged in grading and packing farm produce. Some analysis is required of the pressures to which they are responding and the policies they are adopting towards agriculture. As this study is mostly concerned with vertical integration downstream from agriculture only brief comment is required on the input industries whose activities in integration have already been mentioned.

Most farm inputs are bought only intermittently. Normally farmers buy seeds, chemical sprays and fertilisers only once or twice a year. While theoretically a fertiliser manufacturer or dealer could attempt to obtain a customer or secure a debt by making a pluri-annual contract or obtaining a hold over the disposal of the farmer's produce, in practice this does not normally happen. Sales of these inputs and the numerous less important farm requirements are made on an *ad hoc* basis. Credit may be available but it is very rare that any strings are attached to it. In practice the only inputs specifically relevant to vertical integration are animal feeds and breeding stock, though manufacturers of farm buildings are also sometimes involved.

The activities of the feed industry in Western Europe in vertical integration have already been briefly outlined. Commercial production of animal feeds is disposed of in four ways. Traditionally, farmers have bought feeds from one or more merchants as they have required it at the price ruling on the day in question. Despite the encouragement that this system provides to waste of sales effort, it is still the most common method of buying. However, an alternative method, the use of seasonal contracts at fixed prices - often covering a six-month period - is becoming increasingly popular, particularly among dairy farmers. Credit may be made available through these contracts, the credit often being extinguished through the merchant purchasing grain after the harvest. These contracts have no particular significance for vertical integration.

The third method of negotiating purchases of animal feeds contains a more direct involvement in the farmers' end-product on the part of the feed industry. This has developed for three main reasons. First, it became apparent to both feed manufacturers and livestock breeders (producers of day-old chicks, weaner pigs and calves) that they had some identity of interest in that both wanted to secure farmer customers for their products on advantageous terms. The two products combined formed a very large part of the total costs of an intensive farm enterprise, for which the risk could be most easily secured by obtaining rights over the finished product. Secondly, many egg packing stations, broiler plants, and to some extent slaughterhouses for pigs and cattle were interested in securing guaranteed throughput for their businesses. If they were successful in contracting with farmers it became an obvious next step to incorporate a feed supplier into the scheme. This could be done to the advantage of all parties. Sometimes a relationship is established between the producer and the feed company; sometimes the feed company deals with the packing station, the cost of feed being deducted from sums owed to the producer against deliveries. This simple form of integration is common in the poultry industry. Its advantages are that feed prices should be kept low as selling costs are virtually eliminated, and the amount of administrative work for the farmer is much reduced. The potential disadvantages, which will be further commented on later in this report, are that the farmer may feel that he is not getting the quality of feed which he requires or that the price is wrong; that he may be locked into a situation from which it could be difficult to escape; and that his area for decision making may be greatly reduced.

The willingness of the compound feed industry to participate in these schemes is associated with the competitive environment which has characterised this industry recently in Western Europe. Most companies have been anxious to obtain secured sales to enable them to cut out unnecessary visits by salesmen and to reduce production costs by making possible larger runs of each type of feed. These motives have also been at the back of ownership integration in livestock production by the feed industry - the fourth method of disposing of commercial production of animal feed. The theory behind this development, for which cases can be cited in all EEC countries, is that manufacture of feed can only questionably be regarded as an end in itself. If the product is looked upon simply as a raw material for livestock production, it is tempting for a feed company to believe that it would be a wise policy to move one stage further forward, converting its feed into livestock or livestock products. The temptation is particularly strong if feed appears to be in over supply and margins in livestock production are attractive. Indeed, a few years ago there was ample evidence that this was the way in which the feed industry might well move, in collaboration with livestock breeders, some of which had been acquired by the feed industry. Undoubtedly this would have involved capital, managerial and - particularly - marketing problems which the feed industry could only with difficulty have overcome. At present this development seems to have come to a halt and even, as stated earlier, to have reversed itself. The reason for this may be primarily because of easier conditions in the feed industry. Even if margins become tighter again it seems more likely that companies in the feed industry would diversify into the food industry rather than resume their movement into ownership integration in agricultural production.

8. Interests downstream from agriculture

Account must also be taken of the many changes that have occurred downstream from agriculture, that is to say among agriculture's customers and particularly in the food processing industries. To do so we must make use of generalisations not all of which can be applied to all buyers of farm produce, least of all in equal measure. These changes will be considered under three headings - in the structure of the industries buying from agriculture, in their demands for farm products and in the relationships that they wish to establish with farmers and their organisations.

It might, however, be appropriate to pause to enquire who are in fact agriculture's customers - to whom do farmers sell. For some products the answer to this is simple. Most milk is sold to dairies, eggs to packing stations, poultry to slaughterhouse/packing stations, grain and potatoes to merchants (occasionally direct to processors), beet to sugar factories. In each case co-operative organisations play an important role in most of the countries of the enlarged Community. The first stage marketing channels for beef and veal, pigs, and fruit and vegetables are generally more complex. For example, cattle are sold either direct to the slaughterhouse-wholesaler or to butchers, or through dealers or agents. In some countries (Britain and Ireland) auctions are still commonly used. Vegetables can be sold direct to retailers, to merchants, to packing stations, or to canners or processors. The important point is that the first stage buyers of agricultural produce do not normally consist of retailers (an important exception being eggs in Germany, with "self-marketing"direct to shops and consumers), and frequently are one step removed from the food processing industries. Farmers and their organisations are, therefore, at least one stage, and generally two stages, removed from the demands of the consumers.

While the channels through which agricultural products move are diverse, and sometimes extended, the pressures to which these market outlets are subject are very similar. This is not surprising since ultimately it is consumers who dictate what is required, or at least should dictate provided the large food organisations permit their wishes to be realised. These wishes can make some impact on local markets, but in the main they are expressed in purchases made in retail shops and the type of retailing favoured by consumers. As is well known, very considerable changes have occurred in recent years in the structure and practices of the food retailing trades.

Here in particular generalisations on a European basis are hazardous. Buying preferences vary between countries, and to almost as great an extent within countries.

Some of these differences between countries and regions are noted in Chapter VI. For the present purposes it will be sufficient to comment briefly on the main trends in food retailing which are applying pressures relevant to integration on the various suppliers of food to retailers.

In the first place some growth in concentration in retailing is evident in all the member countries of the Community. Throughout Western Europe large retail organisations are beginning to achieve the market dominance which has been apparent for some time in North America, and has more recently become established also in Britain. These large chains compete with the smaller traders through the convenience of offering a wide range of foods under one roof, through own brands promoted by the chain, and by price cutting made possible by aggressive buying and a policy of low margins on high throughput. Secondly, the trend towards self-service in retailing, though under some challenge, still appears to persist. This type of selling particularly favours packaged products, available in known weights and qualities. Thirdly, modern retailing requires standard branded products promoted through intensive advertising, the relative costs of which buyers can identify, or at least think they can identify.

The growing size of unit in retailing,[1.] the form of food retailing and the type of product required all favour the larger organisations as suppliers to retailers. The

1. During the sixties the number of supermarkets in the EEC increased from 350 to 4,500. But the concentration in food retailing in the six original member countries is still far less than in Britain where the five largest groups in food distribution in Europe are operating.

large companies engaged in food retailing, and to much the same extent also the chains of independent food retailers, require to have guaranteed supplies of standard products available in standard qualities and quantities, and preferably at prices which do not fluctuate frequently.

These pressures on food processors are reflected on farmers and their marketing organisations. Agriculture is now facing a diminishing number of outlets with more particular requirements as to dependability of supply and more stringent views on quality. While off-grade produce can only be disposed of with great difficulty, premiums can be obtained for the right products offered on a regular basis at the right place. Increasingly processors are attempting to obtain their supplies through methods other than open market buying, the advantages and disadvantages of which to farmers will be discussed in later chapters.

It would be a mistake to imagine that companies engaged in food processing and distribution share common policies regarding securing their supplies. Several examples of integration can be given. For example, the British Co-operative Wholesale Society owns egg-packing stations (contracting with farmers) which provide some of the eggs for its co-operative members. In France Lustucru, the manufacturer of pasta products, is linked by exclusive contracts for supplies of eggs from a group of farmers. The large British food retailer Sainsbury's obtains part of its bacon requirements from integrated sources. But Associated British Foods which owns the supermarket chain Fine Fare disposed of its poultry and feed subsidiary, Allied Farm Feeds.

9. Producers and their organisations in the Community

No account of recent developments in agriculture and the food and agricultural input industries relevant to the growth of vertical integration would be complete without some mention of changes that have occurred among farmers themselves and their organisations. Here one enters a difficult area where generalisations, most of all on a Community basis, are liable to be misleading. So far as farmers themselves are concerned the following three broad categories are more or less valid. First, those who run their farms as businesses, i.e. professionals who could be expected to be employed, if they had no farm of their own, as well paid managers. Secondly, those with average ability who are likely to operate profitably provided that their farms are of an economic size, soil conditions favourable, adequate capital available, etc., but who have less business ability than the first category. And finally, those to whom, consciously or unconsciously, farming is a way of life rather than a business, this category including the traditional peasant farmers, most part-timers, and those who are unlikely to be able to ensure that the quality of their production meets the more exacting requirements now often needed by market outlets. The number of farmers in the first category, corresponding with those who are likely to be both most interested in vertical integration arrangements and most qualified to take part in them, is increasing, partly at the expense of the number in the second category. The exodus of people from the land which has occurred through the Community since its inception has largely been of farmers in the third category. As a consequence the proportion of total agricultural production in the hands of farmers able and willing to participate in vertical integration must have substantially increased in recent years.

Turning to the commercial organisations which farmers have created in order to serve their interests in buying requirements and marketing farm products, the differences between the member countries are considerable, extending to legal status, organisational structure and the proportion of trade co-operatively controlled. There are, however, certain features of co-operation which with some exceptions are common to all the member countries. In relation to vertical integration the most important are divisions within co-operation caused by religious or political affiliations, lack of discipline among members over dealing exclusively with their co-operative, and reluctance to treat their organisations on strict business lines with possible consequences for the standards of their management. These three characteristics all act as impediments to the proper functioning of co-operatives and in particular to their capacity to participate in vertical integration. In recent years there have been signs of improvement in all three. This is fortunate since, setting aside the case for the engagement in vertical integration by producers' organisations, there is no doubt that agriculture would benefit if co-operatives were undivided by religious or other differences, if they could count on a disciplined membership, and if their management were both commercially skilled and properly remunerated. These points are taken up again later in this study and particularly in Chapter VII.

Finally, one should note the important differences in the role of the state in relation to farmers and their organisations. With the exception of Britain, which until recently had virtually no specific structural policy, all the member countries have introduced measures of structural reform affecting farmers. Examples are provided by expenditure under the German Green Plan on resettlement and in France on the SAFER's and GAEC's. There have been significant differences in the extent of state support for farmers' organisations ranging from negligible in the Netherlands to the extensive aids provided in France.

III

THE CASE FOR CONTRACTUAL RELATIONSHIPS IN AGRICULTURAL MARKETING

1 The purpose of contracts

Before turning to the special problems of contracting in agriculture it is worth re-emphasising the theme expressed in the first chapter, that the processes described in this report are far from unique to agriculture. Goods are sold on contract in most industries and trades, and in many cases contracts are made prior to manufacture. For example, a retailer buying goods against his anticipated sales over a certain period will either place a buying order for immediate delivery or make a contract with a manufacturer for future delivery, both being based on specifications or against a sample. The retailer will be inclined to place a contract for a period if alternative sources of supply are uncertain, if the price currently quoted is attractive, or if the purchase tends to close out this source of supply to competitors. The manufacturer will be disposed to favour contracting if there are few alternative outlets available, if he considers the price specially attractive, if the product is perishable or has limited outlets, or if the contract contributes to his own peace of mind and that of his bankers. Contracting forward on sales to known buyers and on supplied to known sellers is a common feature of all business activity.

For obvious reasons most contracts are made in writing between the parties concerned. The documents can be in a simple form, or consist of a great many clauses. Some contracts may be based on verbal agreements. In either case contracts are likely to be legally binding. Written contracts have the advantage that there should be less possibility of misunderstanding over the terms and purpose of the agreement, but even a written document might not be legally enforceable if the Courts decide that there are legal defects in the manner in which it is drawn up. In most countries in Western Europe model contracts for agricultural marketing have been established for the main products often at the initiative of farmers' organisations.

This report is primarily concerned with marketing contracts which cover a period of time and which contain an implication of regularity of supply from one party to another during a season, and from season to season. Contracts of this kind create a relationship between the parties concerned which is lacking in an individual forward contract for one or a few deliveries such as is common for example in grain marketing. Contracts made either by individual cereal growers, or by specialised grain groups, or by multi-purpose co-operatives to deliver forward certain quantities of grain to specified buyers at contract prices contain many of the features important to contract marketing in agriculture that are discussed later. For instance, they have implications for the stability of markets, for quality control and the availability of credit. In some cases they are concluded before the season begins and therefore can in themselves influence the pattern of agricultural production, but they are unlikely to involve an on-going relationship between seller and purchaser or imply one for the future.

The detailed studies on the use of contracts in the member countries contain a wealth of information about the use of contracts in agriculture in the individual countries. This part of the studies is commented on further in Chapter VI. This chapter is concerned with three closely interrelated questions. First, what are the main features of contracts in agriculture which distinguish them from contracts used elsewhere? Secondly, what benefits can producers expect to obtain from them, and what are the potential disadvantages of contracting? And thirdly, looking at contracts from the other side of the fence, what are the advantages and disadvantages of their use from the point of view of buyers of agricultural products?

2. Contracts in Agriculture

Once again it is appropriate to reaffirm the difficulty of making valid generalisations about farmers' talents, dispositions or even intentions. Experience shows that a suggestion that farmers are ill-informed about market developments affecting their products is invariably countered by the suggestion that there are numerous producers who follow closely market trends and are fully aware of the best outlets for their goods. This is, of course, the case. Farmers are usually very price conscious, and many are keenly interested in marketing. Nevertheless,the fact remains that agriculture in Western Europe is mainly composed of small units, the occupants of which normally do not have the time or the talents for keeping close track of day to day changes in market prices and whose energies are mostly directed towards production rather than trading. At the very least it can be confidently said that very few working farmers possess the necessary expertise to cope on their own with marketing problems, nor, in general, is it likely to be either economic or administratively convenient for processors (flour millers, feed manufacturers, vegetable canners, slaughterhouse operators and meat wholesalers, and so on) to undertake the procurement of the farm products they require. A marketing link is also frequently needed in order to perform the task of bulking supplies for buyers of farm produce. There is therefore room for an intermediary to fulfil a valuable economic function which can be applied to the organisation of contracting as well as to open market trading. This intermediary can be either a co-operative or a private merchant. Chapter VII examines the role of producers' organisations in vertical integration arrangements. For the purposes of this chapter it will be sufficient to anticipate the broad conclusion of the later chapter - that contracts passed through a co-operative are likely to involve fewer possible conflicts of interest and will therefore normally be best for most producers.

There are, of course, exceptions to this. Contracts between individual farmers and processors exist in some countries on a substantial scale and often work satisfactorily. Setting aside the special position of beet growers contracting with sugar factories, they tend to take two main forms. First, there are numerous contracts between producers and local outlets, for example for cattle to local butchers with prices determined on the basis of notifications at certain markets. Contract arrangements of this kind sometimes persist from year to year. Secondly, there are the contracts made between certain processors and an elite band of producers who value their contract highly, and even to some extent identify themselves with the processor. A case of this type is provided by the close relationship established with its suppliers in Britain by the Unilever meat products company, Wall's. Other examples are provided by contracts made by producers of soft fruits with canners and preservers.

While contracts made by individuals exist and are sometimes mutually satisfactory, it seems more likely that the future will lie with group contracts. The growth of concentration in retailing described earlier will provide no encouragement for local contracts made by individual farmers. Identification of elite producers with whom they prefer to contract may well become less important to processors as the general standards of technical performance improve. Besides, by persisting with individual contracts farmers would lose one of the potential benefits of group activity, horizontal integration leading to somewhat better chances of supply control, which could ultimately lead to improved bargaining strength. This matter is discussed later in this report (Chapter VII).

The second special characteristic of farming relevant to vertical integration is the comparative elasticity of supply and demand for agricultural produce. Demand as is well known, is often inelastic. Supply elasticities vary between products, but in general supply response to price increases appears to be rather positive, whereas in the short run price reductions may only encourage some farmers to increase production, the dairy farmer buying another cow to maintain his income and the arable farmer trying to get his hands on some adjoining land. In this characteristic supply/demand situation market prices, failing government market support systems, are liable to fluctuate considerably. In conditions of price uncertainty there is likely to be more inducement for both buyers and sellers to hedge their positions by contracting forward. The difficulties that affect contracting in unstable agricultural markets are commented on later.

A third peculiarity of agriculture lies in its special problems of obtaining capital or credit and acquiring and mastering technical information. The former is recognised by most governments of countries in the enlarged EEC, but despite aid and relatively generous prices for a number of the major farm products, designed to protect farm income and improve the possibilities of capital formation by retention from profits, the problem remains acute. The continuing trend towards intensification of production will make any solution to it more difficult. The spread of information on technical developments can be assisted in a number of ways, through adult education programmes, by the work of government advisory services, via co-operation, and through the medium of the specialised farming press. There is no doubt that there is a need for technical assistance among many farmers, who are therefore likely to welcome anything which makes a positive contribution to filling this gap.

Fourthly, one must take account of certain characteristics of agricultural markets which are of great significance to vertical integration. Despite efforts made by governments and producers' organisations, backed by market intelligence in the press and radio, there is still inadequate market transparency for most agricultural products. This introduces an element of uncertainty which producers try to mitigate through making contacts for the disposal of their products. This may be all the more desirable in view of the limited numbers of outlets available to farmers. Agricultural marketing is characterised by relatively few buyers of most products, an oligopsonistic situation. Finally, an important feature of many agricultural products is their lack of uniformity. The grading of farm products continues to make progress but the influence of weather, the effects of diseases, etc. place a limit to the possible effectiveness of grading in both livestock and arable production.

3. The case for contracting: for farmers

What do farmers expect to get from signing marketing contracts, and what are they likely to get? There could only be one answer to the first question; higher or more certain net incomes, if not every year at least taking one year with another. Indeed the expectation of an improvement in the level and stability of net incomes is the only sensible purpose for making a contract. This objective could be achieved in three ways: through better availability or lower prices for farm inputs; through lower unit costs of production as a result of improved agricultural practices leading to higher yields or better conversion factors, or by means of an increased scale of production made possible by greater security of outlet; or through higher market prices for the products over a period. To an extent which varies between products possibilities exist for obtaining all these benefits from contracting. In order to appreciate how they may be forthcoming it is necessary to examine the relationship that can be established through contracting (whether direct or through the medium of a co-operative) between a producer and a processor or other buyer of agricultural products, which itself could be a co-operative organisation. This relationship can take many forms. The description which follows is designed to provide a typical example bringing together most of the functions of contracting.

In an area in which pig farming predominates a number of producers join together to form a group. Most of the members are pig fatteners but some specialise only in producing piglets. The group makes a contract with a local slaughterhouse/meat wholesaler to supply a certain number of pigs per week. On the basis of this agreement the group contracts with its members for deliveries which are organised by the group. Transport costs are for the account of producers who also pay a small levy to the group based on the number of pigs delivered. The group contracts with the producers of piglets and organises deliveries between members. It also makes arrangements for the provision of breeding stock from a specialist organisation outside the group. Members have the option to buy feeds (or other requirements) on their own account or via the group, which places bulk orders with a local feed mill. The slaughterhouse settles its account with the group monthly. Against its delivery contracts the group can obtain credit from the local bank which enables it in turn to make advance payments to its members if required. The group employs a secretary to deal with all financial and administrative matters and an advisory officer responsible for supervising quality of deliveries and advising members on any production problems that they may have. Premium prices are obtained from the slaughterhouse reflecting the advantages to it of regularity of supply and savings on procurement costs. A dialogue continues between the slaughterhouse and the group which is thus kept informed of market requirements and price trends. The group is run by a small unpaid management committee drawn from the members. There is a quarterly meeting of all members to discuss the group's progress.

What does a contract scheme of this kind offer to farmers who take part in it? First, on the input side farmers can expect to obtain disinterested advice on production problems. Feed and other requirements can be provided via the group at prices which may be lower than those available to individual farmers. The group can play a role in vetting the quality of the delivery of these requirements. Suppliers may be more anxious to maintain a good service, knowing that in the group they have a valuable customer. The total supply of credit obtainable by members may not be increased, but the group's participation in a credit scheme may lower rates.

Production costs within the group may be reduced in a number of ways. Each member may benefit not only from the services of the advisory officer but also from contacts with fellow members and from feed-back of information on quality, etc. from the contracting slaughterhouse.

Through exchange of information mortality and feed conversion rates may be improved. Production could also benefit from closer control on deliveries of batches of piglets and on the quality of feed ingredients. Members of the group are spared marketing and requirements worries and can concentrate their attention on production problems. This may be an important advantage.

The third potential advantage of contracting, higher market returns for the products, is less certain and usually less easy to prove. In the example given a premium is paid by the buyer but this is very likely to be offset by the cost of running the group. As a result of the group's operation and the closer relationships established through contracting it is probable that the average quality of the pigs will improve, and this should be reflected in higher realisations. Through control of supplies in the area the group may be able through bargaining to obtain higher prices, but it must be recognised that the tied outlet cannot afford to pay higher prices than its competitors over a period and still retain the business required to provide the throughput of pigs that producers need. In practice the price objectives of contracting groups of this kind are likely to be limited to providing members with fair and more stable prices. Realistically the more extravagent claims of these organisations need to be regarded with considerable caution.

4. Disadvantages of contracting

All this sounds, in general, very promising. What are the disadvantages of contracting? Not all farmers will welcome the idea of group collaboration and group discipline that is involved even in such a loosely knit group as this example. They may resent having the quality of their products known to other members and prefer to avoid any regimentation of input purchasing. Few farmers like to ask their fellow group members for permission to take credit from the group. Some dislike the idea of committing themselves over their sales. If the group contracts forward with fixed prices it is quite possible that prices will be lower than the market at some time during the pricing period. Will producers remain loyal to the scheme? Even if the contract is open-ended on prices, which are then determined on a day basis in relation to a known market price, it is quite likely that the slaughterhouse will be unable always to pay the highest prices. Finally, what happens if the slaughterhouse begins to lose its market position, with possible adverse consequences for its buying prices, or if its demands slacken, or if it even closes its doors?

Summarising the position, the major potential disadvantages of contracting are loss of independence together with greater interference in the individual farmer's business, brought about by the need for quality control, though clearly these need not necessarily be seen as disadvantages; isolation of individual farmers from direct contact with the market, a disadvantage which would mainly become relevant if the producer gave up selling on contract; and the risk of choosing the wrong contracting partner, a potentially fatal disadvantage which, of course, applies in any business relationship.

The major unknown is the effect of contracting on farmers' incomes. In the short run contracting farmers will by definition have more predictable incomes, and from year to year their incomes may be more stable. But in itself contracting need have no certain and indisputable effect on market prices. The removal from the market of some quantities of produce may even out the peaks and troughs of market movements since farmers who have secured part of their income through forward sales will be less likely to be forced into selling at distressed prices, and the same may apply in reverse to buyers. But the argument can be stood on its head through maintaining that a farmer who has sold part of his crop satisfactorily may be more prepared to dispose of the remainder at lower prices; and likewise that a buyer can afford to pay higher prices for marginal supplies. Contract selling simply reduces the quantity to be disposed of through the market. This narrowing of the market may well result in greater stability, but it could also make the residual market more volatile.

Normally a residual market, i.e. non-contracted market, is essential for two reasons. First, to clear supplies over and above quantities covered by contracts; and secondly, to provide a price reference which may be used to determine the price to be effective for contracts. In discussions about the use of contracts in agricultural marketing,people sometimes lose sight of the obvious point that prices, regardless of contracting, cannot for long deviate from equilibrium points at which supply and demand are matched. Prices for products sold on contract cannot remain for any length of time radically different from open market prices, not only because this is likely to put an intolerable strain on one of the contracting parties, but also because, if the quantity contracted represents a significant proportion of total supplies, either supply or demand will be excessively stimulated or depressed. This leaves open the question of what proportion of total supplies should ideally be sold under contract. The reports from the individual countries offer no clear guidance on this point. The best that can be done is to indicate that factors relevant to this question will include how volatile is the supply of the product (e.g. whether it is affected by natural causes) how many different outlets exist, and whether it is perishable or can easily be stored. Unfortunately it is not possible to lay down an ideal proportion of total supplies of each agricultural product which should be covered by contracts.

5. Risk sharing through contracts

Some contract schemes practised in the enlarged EEC contain, or purport to contain, an element of risk sharing on market prices between the parties. Perhaps the best known of these are the schemes organised by the Dutch co-operatives, notably in pig marketing. But there are a number of other examples provided in the reports from the member countries, e.g. contracts for eggs with price guarantees operated in France. Briefly, the idea is that a formula is designed so that the processor accepts part of the brunt of falling market prices and does not pass on the whole impact to the producer. And the producer is given an addition to his price if the market rises. Other interested parties, notably suppliers of inputs, can also take part. For instance, in a vertically integrated broiler enterprise based on contracts, the packing station could take up part of a fall in prices and a contracted feed mill another part, so that the whole burden does not fall on the producer.

Before assessing the value of these schemes for producers three comments on them need to be made. First, it must be recognised that those taking up what is represented as part of the "producer's risk" might anyway be forced to do so. There is nothing sacred in the margins of broiler plants (or for that matter egg packing stations, slaughterhouses and other potential risk sharers) and feed mills. In conditions of over supply they too might have to cut margins regardless of any locked-in formula, which anyway is unlikely to be arranged below the break-even point of these interests. In other words without a risk sharing scheme most broiler plants and feed mills might well have to trim their prices in order to retain throughput. It would be a mistake to exaggerate their benevolence.

Secondly, those taking part in risk sharing schemes are likely to "pad" their normal margins so that they are still left with an acceptable average margin for the year in the event that risk sharing comes into effect. This would be no more than provident business practice. In a competitive market, such as exists for broilers, a processor cannot be expected to obtain more from the market than his competitors. In turn he cannot pay producers, except on a very short-term basis, more than his competitors. And, finally, it must be recognised that risk sharing could anyway work to the detriment of producers by shielding them in the short term from the realities of changes in supply and demand to which at some stage they would have to face up. In other words risk sharing, if effective, may delay supply adjustment in an over-supplied market. An even more dangerous effect would be produced if farmers were encouraged to enter pig or poultry production by risk sharing schemes which could lull them into ignoring the fact that these activities have always been strongly influenced by cycles.

In summary, therefore, the effect on farm prices of vertical integration through contracts can only be regarded as neutral, though there may be beneficial effects through the secondary influences already mentioned, for example production of what the market requires and better quality control. A more promising approach to the problem of higher market realisations is through horizontal integration, the prospects for which in conjunction with vertical integration are discussed in Chapter VII.

6. The case for contracting: for buyers of farm produce

To a large extent the third question posed earlier in this chapter - the advantages and disadvantages of the use of contracts from the point of view of buyers of agricultural produce - has already been dealt with through the analysis of the effects on producers. Contracts secure supplies, ensure a certain level of price for at least a part of a processor's requirements, enable the processor to influence and sometimes to dictate production methods from an early part in the production cycle, and through direct contact with producers to make himself well acquainted with all aspects of production, including costs. To a large extent producers and processors are motivated towards contracts for the same reasons. That is to say both parties are more anxious to make contracts if the products in question are of a specialised character, if they are perishable, if they are difficult to store or expensive to transport, if their production and processing involve large capital costs, and if market prices tend towards violent fluctuations. Indeed it is possible to draw up a sort of league table of likely propensity to contract for the various agricultural products based on such criteria.[1]

There is therefore a strong basic identity of interest on contracting between producers and buyers of agricultural products, although the tension between the two sides of the arrangements must persist over prices and the terms and conditions of contracts. At least it can be argued that, due in part to the pressures on them from retailers and their relatively high capital costs, food processors must be keenly interested in contracting. It might be as well for farmers and the managers of their marketing organisations to remind themselves from time to time that their customers

1. The study on vertical integration and the use of contracts in Germany cites such a table drawn from Dr. von Oppen's Möglichkeiten und Grenzen der Anwendung verträglicher Regelungen beim Absatz landwirtschaftlicher Produkte. Braunschweig - Volkenrode 1969. This is reproduced in the Appendix.

need contracts, and can benefit from them, at least as much as they do.

7. Contracting between farmers and their marketing organisations

It is perhaps appropriate to note at the end of this chapter the important, though possibly obvious, distinction between contracts (or obligations to deliver) entered into between farmers and their organisations, and those made with buyers of farm produce either by these organisations or by individual farmers. As stated in the last chapter the former is an essential prerequisite for the creation of strong co-operatives. Whether they then make contracts based on these more or less predictable supplies, or alternatively decide to trade without contracts, is a matter for individual decision. But membership loyalty, which frequently may best be secured through a contract, is vital for a producers' organisation before it can with any confidence enter into contracts with buyers. Membership discipline based on clear-cut obligations is a *sine qua non* of effective group contracting.

IV

THE CASE FOR OWNERSHIP VERTICAL INTEGRATION

1. Contracts or ownership vertical integration

Some marketing contracts in agriculture cover only a short period and involve little or no interference in the running of the farm business by the contracting buyer. Others contain more stringent conditions over production, including the use of certain feed ingredients and avoidance of undesired chemicals, to the extent that the buyer is necessarily involved closely in production techniques. If credit is extended, this involvement can become even more intimate. Most marketing contracts are for a production cycle or for a season, or are renewable from year to year, but for a few products the terms of contracts are extended to several years. Typically such contracts are used when the life of one or more of the main assets involved in farm production has an extended life, for example, specialised farm buildings and peach trees.

Farmers who have contracts with buyers on a basis which permits close control of their operation sometimes complain that they feel as though they are virtually working for the integrator. Inputs are provided under the control of the integrator, the production process is closely supervised, and the farmer is paid at the end of the month or at some other period on the basis of realisations (the marketing, of course, being fully controlled by the integrator), less the costs of inputs, including credit. What is the difference between this and being an employee of the integrator, except that all or part of the production risk (through disease, drought, etc.) is borne by the farmer? Emotive words like "slavery" have been used about this type of integration on both sides of the Atlantic.

It will provide little comfort to the farmer to be told that he did not have to sign a contract in the first place, or that it is very possible that his business could anyway not have survived on an independent basis. There is, however, one important difference between the condition of the farmer, even in the most tightly integrated arrangement, and an employee of an ownership integration scheme. The former may, at least theoretically, extricate himself at the end of the contract, and resume an independent life on his farm or make a contract elsewhere, whereas the latter has parted with his asset, and re-entry into independent farming might effectively mean starting again.

A few years ago ownership vertical integration, which had previously been an important issue in agricultural policy in the United States, appeared to be a matter of growing concern in Western Europe. It was thought that ownership integration, which had already been established in the poultry industry, might be extended into other types of agricultural activity on an important scale. In fact in recent years this development has in general come to a halt, and in some cases has been reversed. There are examples of ownership integration in all branches of agriculture in the enlarged EEC but its extent is of insignificant importance, outside the poultry industry, in relation to total agricultural production. Chapter VI provides some examples on this matter. This chapter will be concerned with discussion of the case for ownership vertical integration. The main questions to be answered are: why does this process take place; what do integrators hope to achieve by it; and what factors are in practice most likely to inhibit its development. While the motives and objectives of integrators are extremely diverse, the main ones are illustrated by the following six cases.

2. Original planning of ownership vertical integration

First, we must take account of the new entrant to agriculture who, viewing the whole agricultural process - supply of inputs, farm production, processing and marketing - might attempt to calculate what economies could be obtained by bringing together under common ownership all or some of these stages. Such an observer looking from outside at agriculture might regard closely possible production economies, but would be more likely to start his train of thought from an assessment of what would constitute the right amount of produce, or proportion of the total market, to justify setting up an independent marketing organisation. The assessment would be guided by whether the market for the product, when produced on a large scale, is primarily local, national, or Community wide. At least it would be correct to start at the marketing end because without security of outlet, which will itself depend on market strength, the integrated organisation will be liable to founder. Having established what level of output is required in marketing terms, taking account of possible collaboration with other interests, the integrator will look at what economies could be achieved as a result of operating a fully integrated organisation capable of this level of output. The main potential savings would be through economies in the scale of production of the product itself, in the manufacture of inputs, which could include fixed assets, in transportation of both inputs and products, and in management of all branches of the enterprise.

The best example drawn from Western Europe of a company which developed a closely considered policy, based largely on the thinking of one individual, to create from the outset a vertically integrated organisation, is still provided by J.B. Eastwood Ltd.

All farmers try to work towards an optimum scale of production. They are limited, as is also the integrator, by the availability of land, capital, and management resources. The last two are, at least theoretically, capable of solution, as capital for buildings, etc., may be obtained if the project is viable, and management can be hired. Land, however, represents a major inhibition to these developments in Western Europe, since the land market is restricted and prices high. It is primarily for this reason that large-scale ownership vertical integration has effectively been limited in Western Europe to the intensive products, but even for these some agricultural land is normally required in order to cope with effluent problems, and to mitigate the greater risks of disease which may apply if intensive livestock units are grouped closely together. Economies in the cost of inputs can be obtained through knowledge of the total requirements of the organisation and thus ability to create one or more units of an optimum size to provide them. The most obvious candidate is a feed mill which could also benefit from being able to make longer and more predictable production runs, but the argument can be applied to livestock inputs, notably breeding stock, day-old chicks, and piglets, farm buildings for housing stock, a transport fleet, and so on. Management economies are likely to consist less in the possibilities of reducing costs than in the ability to make use economically of specialists such as nutritionalists and veterinary experts.

Most of these economies are available in an integrated organisation based on contracts rather than ownership, and they can apply particularly if there is some identity of interest between the parties (see Chapter VII), but it must be recognised that under common ownership the long term investment needed in the various parts of the integrated organisation can be made with much greater confidence, and therefore with greater precision as to the capacity required, than in the case of a contracted scheme, even one under producers' control. And clearly it would be likely to be easier to develop an effective central policy when large numbers of somewhat differing interests do not have to be taken into consideration.

3. Increased throughput through ownership vertical integration

A second way in which ownership vertical integration is likely to occur can be illustrated by the case of a slaughterhouse,[1] which finds that the supplies of livestock that it is able to obtain from its locality are insufficient in relation to an economic level of throughput. The slaughterhouse might consider entering livestock production itself in order to increase its supplies and thereby lower unit costs involved in running the plant. The most obvious candidate would be a pig unit in which production can be built up rapidly, and supplies increased without additional procurement costs. In order to do so the slaughterhouse would have to have available the required capital and obtain suitable management for the new integrated production enterprise. These might be difficult to obtain. Before making such an investment

1. The same argument could be applied to an egg packing station, broiler plant, vegetable grading and packing station, etc.

the slaughterhouse should consider carefully why adequate supplies are not in fact forthcoming. Is the area under some disadvantage in relation to livestock production? The slaughterhouse might also have to consider whether by entering livestock production, and thus competing with its customers, it might create problems for the future, perhaps by providing a cause for its customers to deal with a rival organisation.

A rather similar problem would be presented to a feed mill which is short of customers in relation to its capacity. The mill could start an integrated livestock enterprise which would take up some of its output, but the economics of the activity in its own right and customer reaction would have to be considered. In either case the entry into ownership vertical integration is suggested by the need to cure the troubles of an existing activity. Co-operative organisations could, and sometimes do, create vertically integrated enterprises under their own ownership. More commonly managers of co-operatives have to take care not to over-encourage their members to expand their production simply in order to take up the capacity of a co-operative feed mill or to provide throughput for a co-operative slaughterhouse.

4. Integrated agricultural merchants

A third road towards ownership vertical integration consists of integration into the merchanting sector, a variant of the above. This normally takes the form of manufacturers of inputs, particularly feeds, buying up firms of merchants which then usually develop gradually into exclusive outlets for the manufacturers. The largest private compound feed manufacturer in Denmark now sells virtually all its feed through controlled outlets.

All the national feed companies in Britain own some merchant businesses. Integration into merchanting can also come from the other direction, notably from flour millers. The objective in either case is much the same; in the former to control distribution outlets and in the latter to possess a grain gathering organisation working solely in the processor's interests. The main significance of these developments, which are not widely established in Western Europe, is that it is an area into which producers have, of course, already moved through their co-operatives. Vertical integration into merchanting by private companies, either suppliers of inputs or buyers of agricultural produce, is likely to introduce greater strength into private merchanting in its competition with co-operatives.

5. The food industry and ownership vertical integration

Fourthly, ownership vertical integration can take place under the control of food processors or even the larger food retailing organisations. So far as the latter is concerned the question whether it pays to own production facilities linked to the demands of retail shops has been an issue for many years. A good example is provided by the consumer co-operatives in Britain which through the Co-operative Wholesale Society at one time owned a large number of factories supplying the shops with shoes, furniture, etc., and, on the food side, egg packing stations, flour mills, bacon factories, and canning plants, as well as farm production itself (as Britain's largest farmers) and agricultural inputs in the form of feed mills. In recent years the trend in Western Europe has been for food processors to keep out of agriculture and retailers to avoid extending their direct interests in food processing. In both cases the main motive has been financial, that is to say, the desire to concentrate limited resources on the main business.

In the case of food retailers it has been found that it has usually been cheaper to have the rapidly increasing volume of "own-brand" merchandise manufactured under contract by independent processors.

The principal cause of backwards ownership integration of this kind exists when the potential integrator finds that he cannot obtain, either in the open market or through the use of contracts, the quality of supplies he requires at the right price. While this motive, which for example prompted a large family controlled retailer in Britain (Sainsburys) to engage in bacon curing, could recur, it is unlikely to be an important force in the future, as agricultural and processing techniques improve. Another subsidiary motive for backwards integration is that through ownership of an anterior stage in the chain which supplies part of its requirements a firm knows from direct experience more about the problems and costs of the industry acting as its supplier. But, as was pointed out earlier in this report, this benefit may also be obtainable through contracting.

6. <u>Breaking out of an oligopsonistic market</u>

Another case for ownership vertical integration arises when an organisation (including a co-operative) finds itself operating in a very imperfect market characterised by oligopsony, a market in which competition for the organisation's products is feeble, and large profits are being made at the posterior stage. There may be only two ways to break out from this situation - by effective control of supplies on a horizontal basis, most likely in collaboration with other interests, or by forwards integration.

The case for the development of ownership integration in oligopsonistic conditions is currently very relevant to producers' organisations, and requires further comment. In considering their income problems farmers have often been inclined to look with some astonishment at the level of consumer food prices and compare this with what they get for products as they leave the farm. The difference between the two is large, and has been tending to increase. Farmers have, therefore, felt that one of the ways to improve their incomes would be to integrate forward beyond the first marketing stage into processing, perhaps beyond the processing, packaging and grading stage into food wholesaling, and perhaps ideally beyond that into retailing.

It is understandable that many outside observers view these arguments with some scepticism. Any analysis of an industry's problems that sees the solutions as lying mainly outside that industry can reasonably be regarded with some suspicion. Besides, vertical integration forwards clearly cannot represent any general solution to agriculture's income difficulties, since some sections of the food industry in some, but not all, EEC countries show a poor return on capital (e.g. flour milling) others already have a strong co-operative sector (e.g. sugar refining), and others appear to be highly competitive (e.g. vegetable canning). So there can be no overall solution to the farm income problem as a result of vertical integration forwards.

Two other points, both negative, must be added. First, there is no reason to suppose that producers' organisations will make a much better job of food processing than existing firms in the industry, some of which are international and apparently well managed. Secondly, entry by producers' organisations into a section of the food industry on a substantial scale might alter the balance of that industry, and be likely to lead to lower margins. In other words producers' organisations which detect, or suspect, favourable profit margins in a posterior stage should not necessarily assume that these margins will remain indefinitely available to them.

7. Investment motives in vertical integration

Finally, pressure of investment funds can be a cause of ownership vertical integration, a point made in an earlier chapter. In all forms of economic activity individuals and organisations are faced with the problem of how best to invest surplus funds. Often one of the most obvious opportunities consists in buying out a customer or a supplier, thereby creating common ownership of two of the links in the vertical chain. This motive applies to companies in the food and agricultural input industries, and particularly the former, which has recently witnessed a spate of mergers and take-overs, some of which have had the effect of creating ownership vertical integration apparently as much by chance and the need to "keep moving" as by deliberate design of corporate policy. This motive is unlikely to apply to farmers as individuals who seem to prefer to place outside agriculture surplus funds not required in their individual farm businesses, nor to co-operative organisations which are very frequently short of capital and usually have no problem about how to use their spare funds within their existing businesses

8. The case for ownership integration forwards by producers' organisations

Having taken a somewhat cautious view of the general case for integration forwards by agricultural interests, it must be added that producers' organisations should keep this possibility under continual review. Special situations may arise in which it could make sense to integrate forwards. This is most likely to apply when the producers' organisation happens to possess the necessary management expertise which will allow it to develop in this way. But it must be recognised that if it moves into the food industry in a substantial way, agriculture will be facing an entirely different environment, one which lacks the special market protection which has been afforded to farmers. The priority will always be to attempt to organise effective horizontal integration so that a strong base exists for taking on the partly unknown problems associated with entry into the food industry.

Looking to the future it seems likely that ownership vertical integration will continue, and possibly be extended, in eggs and broiler production; that it will have spread within a few years on a substantial scale to pigmeat production; that some developments will occur in the beef and veal sector; that it will expand in some of the minor products (like turkeys and ducks); but that there will be no overall increase of any great substance in the incidence of this type of ownership and control in relation to total production. Some of the more compelling reasons for the development of the process in the past, which have been noted above, particularly the problem of obtaining the right quality and regularity of supply, are likely to become of diminishing importance in the future. The reluctant integrator should be able to find other means of disposing of his output or securing his supplies, which could include the use of contracts and the formation of joint ventures, another method of co-ordinating agricultural supplies with market requirements, which is described in the following chapter.

V

NEW MARKETING RELATIONSHIPS FOR PRODUCERS' ORGANISATIONS

1. Another method of co-ordinating supply and demand?

The last two chapters have been concerned with two methods of co-ordinating supply and demand of agricultural products which function outside the normal pricing operation of the open market. Both contracting and ownership vertical integration, and particularly the former, have something to offer in co-ordinating agricultural marketing. But they also have a number of important disadvantages from the point of view of both parties. For farmers contracting presents problems over fixing prices (as it does also for buyers), over interference by an outsider in their businesses, and over restricting them to farm production from which they may wish partly to escape. From the point of view of both agriculturalist and buyer of farm produce the main problems implied by ownership vertical integration are how to obtain management talent for the larger integrated business and how to raise the necessary finance.

The question arises whether it is not possible to find some other solution to the problem of co-ordinating agricultural marketing. Can organic relationships be established capable of creating closer identity of interest than exists in contracting without the "all or nothing" aspect of ownership vertical integration? Farmers and their organisations have the advantages of controlling supplies of farm products, of strength in first stage marketing, of knowledge of some types of processing, and of interest in the qualities of their own products related to processing requirements. Companies in the food industry usually have well established market outlets, good information on the markets for food products, and knowledge in varying degrees of the farm products required for the purposes of their processing, and of how they should be produced. Would it not be possible to bring these two sets of talents together in an organic whole, which would also provide a vehicle for receiving investments from both sides and thus ease the financial problem which either might have on their own? Essentially this is the thinking which lies behind the idea that agriculture might engage in so-called "joint ventures" with non-agricultural interests, most of whom would be likely to be food processors, though some partners could also be drawn from the agricultural input industries.

The term joint venture is rather novel and there may be some doubts as to what it is intended to describe. In English the term has an attractive ring about it; the project or investment so described sounds risky and a little romantic, but still - through the inclusion of the word joint - reassuringly solid. It evokes a picture of a sixteenth century merchant adventurer backed by his Sovereign, who sets sail into the unknown to earn a fortune for his backers, but not without taking out heavy insurance cover to protect the interests of these investors.

2. Joint ventures outside agriculture

Before turning to joint ventures as applied to the peculiar situation of agriculture, it might be useful to make some brief comments on how the expression is used in industry. A joint venture can be seen as an alternative to a full merger between industrial companies. It applies under three main circumstances. First, when two or more companies have a mutual interest that they wish to pursue together which is limited to a part of their business. For example, two companies in the soft drinks industry might decide to set up a jointly owned bottling plant. Alternatively, if they were large enough, they might decide to undertake joint research on bottling problems. Secondly, when two or more companies with different skills, or with control over different inputs, wish to join together to carry out a common task. An illustration of this is provided by the formation of a consortium in the construction industry. In a large road building project undertaken by private construction companies a consortium is often formed that brings together complementary skills and experience which will be devoted in common to the project. The third typical case for a joint venture arises when the parties to a project with similar interests, skills, etc., join together for a limited time. A simple example of this is provided by chartering a vessel. Since joint ventures usually involve some financing, one of the partners may well be an investment bank or other financial institution, and government financial assistance may be made available. While a new organisation is often created to form the joint venture, there is no necessity to have a separate corporate entity, for example in the case of joint research. But the parties will, of course, need an agreement, and will require separate accountability for the joint activity.

3. Difficulties involved in joint ventures.

Examples of joint ventures for purposes such as those mentioned above can be cited from many branches of industry, despite the rather obvious difficulties which this type of operation involves. These difficulties arise from problems such as "What sort of research should our joint venture concentrate on?", and "What happens if it is concerned with a product in which we are competitively interested?";

or, in the case of a consortium in the construction industry "What is the right price for the inputs provided by each partner, and how much should seconded experts be paid?"; and, for all joint ventures "What are the appropriate penalties for non-performance by one of the partners?"

Joint ventures are like a marriage, a common activity without total identity of interest, with the additional difficulty that it may be agreed from the outset in the case of an industrial joint venture that it will be limited to a short period. The possibility of frequent misunderstandings between partners in joint ventures are so great that these schemes are more likely to be confined to use between parties who have worked together previously, or believe that they have sufficient good will towards each other to be able to reach agreement on matters which could not have been anticipated when the original contract for the joint venture was drawn up.

In industry informal ties are very frequently established between companies either horizontally or vertically and these can develop naturally into joint ventures. But it must be stressed that very few industrial joint ventures could be described as vertical in the sense that the joint venture is owned by companies on either side of it in the integration chain. By contrast, while it is still difficult to find examples in some countries in Western Europe of joint ventures in agriculture there are already a sufficient total number of joint ventures in vertical integration in agriculture to justify concluding that they could make a further substantial impact on agricultural marketing in the near future.

3. Joint ventures in agriculture

This might be an appropriate stage to give some examples of this process in agriculture. Neighbouring arable farmers who have traditionally sold their output through a potato merchant, decide to set up a disciplined marketing group. They need grading, packing and storage facilities. The merchant fearful that he might lose an important part of his business as may well occur if the group decides to market its own produce direct, might be interested in a jointly owned organisation to run the facility. This company could make contracts with both the producers and the merchant. The financial structure of the new company could consist of equity capital subscribed by the two partners, loans from banks, and also possibly a capital grant from central or state government funds. The merchant would sell the group's output on commission. The proceeds of sales, less commissions, would be credited to the joint venture's account. After deducting costs of production, including an agreed rate of interest on capital employed, the remainder would be distributed to members in proportion to their deliveries. A second example might also be drawn from the potato industry. A manufacturer of instant potatoes or potato crisps wishes to install specialised plant. He is already drawing his supplies from a group which has adequate grading facilities, etc. It might make sense for the proposed investment to be jointly financed by the two parties. In this case, unlike the former, there will be a problem over price determination. And, thirdly, one could take the example of a specialised group of vegetable growers, perhaps carrots or onions, contracted to a number of processors but selling a major proportion to one of them. The latter might be interested in securing its position with the group especially if it regarded these supplies as particularly suitable. If the group wished to take in additional funds for new grading or pre-packing machinery, an arrangement could be made whereby a separate organisation was established jointly financed by the processor and the group.

In livestock and livestock products much the same pattern can be repeated. An egg-packing station can be jointly owned and controlled by a group of farmers supplying eggs on contract and by an egg wholesaler or a large retailing organisation contracted with a packing station for a proportion of its output. Likewise, a slaughter-house can be jointly owned by interests on either side in the vertical chain, as can any other function in the chain. In addition an extra link can be inserted into the chain to act as a buffer for price determination between the parties who would otherwise be contracted directly together. This might be illustrated from the agricultural input industry's use of feed contracts. A merchanting company could be jointly owned by a feed mill and a group of livestock producers who were important local consumers of feed. Both could contract with the merchant as their joint venture, which would act as a forum for deciding what the mill should receive and the group pay for feed.

4. The potential contribution of joint ventures

The potential difficulties involved in joint ventures, over price determination and quality control, over management, over the level of retention appropriate to it, over the balance of investment between the two parties and over the very obvious problem of finding compatible partners, have already been indicated and require no further comment. It might, however, be useful to summarise what this development, in its infancy in Western Europe, might have to offer to the chain of agricultural marketing. First, by establishing a joint venture, the parties who would otherwise be contracted together with one of them owning entirely the plant or trading function in question, go somewhat beyond even a long term contract in declaring their intention to work closely together. Through making a joint investment they are more committed to ensuring success for their relationship in the long term than would be the case through the use of contracts. Secondly, both parties should achieve greater security. By creating a financial link with a group of producers a buyer of agricultural produce should feel more secure in his sources of supply. There should be some benefit to producers in having a buyer more closely integrated to their group. But by contrast both, of course, lose some freedom of manoeuvre. Thirdly, through joint ventures producers and their organisations can realise their understandable aspirations to move beyond the production and first marketing stage, and do so without being solely responsible for the management of what might be a new area for them. Fourthly, unit costs in a joint venture should be low since most supplies to it and most sales from it will be secured. Throughput is therefore assured and production costs should be kept to a minimum. Fifthly, by creating a formal link between the parties in the form of a joint venture it should be possible to solve more readily any other problems which arise in the relationship apart from pricing and quality, and a two-way exchange of technical information should be facilitated.

Finally, there is the all important question of finance which is likely to be the major advantage of a joint venture in vertical integration in agriculture. There are several aspects of this. In the first place both parties may be unable, or unwilling, to make the full investment on their own. Apart from the equity element a joint venture should be able to attract capital from private sources, where these exist, on a more generous scale or on better terms than would be available to one partner on his own. Banks and other financial institutions would be likely to appreciate that both parties are committed to fixing their prices to and from the joint venture so that it remains viable, as otherwise they will have lost respectively a secured marketing outlet and a secured supplier, capable presumably of delivering just the quality that is required. In other words there is scope for both parties to adjust the position so that the joint venture stays solvent.

Another important element in the financing of joint ventures is likely to be support from the State. If it is felt that these organisations can play an important role in improving agricultural marketing to the benefit of producers, tax payers, the food industries, and, last but not least, consumers, there could be a justification for making government funds available to them, at least for a number of years, while their function is being established, and their practical contribution assessed. Aid could take the form of capital grants or subsidised interest rates for credit or a combination of the two. Argument about the appropriate scale of aid lies outside the scope of this report. The amount of financial assistance provided could be influenced by the extent of their commitment, and also by the security offered through the capital structure of the joint venture. The relative level of investment by the two partners might be arranged so that neither partner can dominate the other. To obtain the right balance of influence between the parties is anyway vitally important. Provided assurances were obtained on these points financial assistance might more appropriately be related to the total capital requirement of the new organisation rather than be limited to the proportion subscribed by producers.

THE CURRENT STATE OF VERTICAL INTEGRATION IN AGRICULTURE IN THE COUNTRIES OF THE ENLARGED EEC

This chapter contains examples of vertical integration arrangements drawn from the nine countries which are now members of the EEC. The Commission has initiated individual studies of the situation in France, the Netherlands, Belgium, Italy and Germany, from which, as indicated in the Foreword of this report, the latter three have already been published.
These five studies contain a detailed examination of the state of vertical integration in agriculture in each country. They constitute self-contained documents and deserve to be studied in their own right. The examples quoted in this chapter are therefore limited in number. The main purpose of the chapter is to provide some illustrations of developments in the Community as a background to the summary at the end designed to indicate the main reasons why vertical integration has emerged in different forms and to a varying extent for the range of agricultural products of principal importance in the member countries of the Community. The countries are treated below in alphabetical order.

Apart from sugar-beet and cereal and other seeds, which require no comment on a national basis since they are grown on contract throughout Western Europe, the main products in Belgium which are subject to vertical integration arrangements are eggs and broilers, veal calves, pigs and some vegetables. Contracting is not normally used for marketing brewing barley, and most potatoes are sold on a spot basis. Milk is only subject to contract in so far as contractual deliveries are made to dairies, about 50 per cent of supplies going to the co-operatives.

As elsewhere in the Community broilers are the main farm products covered by contracts, some 90 per cent of supplies being integrated with processing plants. A much lower proportion of egg production is integrated in Belgium, approximately 40 - 60 per cent, the development dating only from 1965/66. The initiative in contract production was taken by manufacturers of feedingstuffs wishing to reduce under-utilisation of their production capacity. Over the past few years the increased egg production has been mainly as a result of the spread of contracts. Substantial credit facilities have been provided, partly by the feed industry for investment in new production units, and in the purchase of feedingstuffs. Apparently, it has been mainly farmers whose economic position is weak who have decided to participate in contract schemes. They believe that contract production will expand still further in the future.

Contract production of veal calves in Belgium dates from the mid-1950's when milk substitutes became available, and it consequently became possible to divorce production from dairy farming and to undertake it on a large scale. The feed industry began to take an interest in this sector and wholesalers introduced contracts for the supply of bobby calves and the marketing of finished veal calves. These wholesalers have now acquired a key position in contract production. Farmers have been induced to sign contracts because financial support is provided by the contracting parties (the feedingstuffs manufacturers and the wholesalers), because they wish to reduce market risks and obtain a more stable income, and because of the advantage of secured supplies of bobby calves. About 65 - 85 per cent of veal calf production in Belgium is now done on contract.

Production of pigs under contract in Belgium began about 15 - 20 years ago and was mainly initiated by the feed industry, manufacturers and merchants. A variety of contracts is used. These include wage contracts, whereby the farmer simply supplies farm buildings and undertakes to look after the pigs which remain the property of the contractor, usually the supplier of the feed. The farmer receives a fixed remuneration. There are varying ways of dealing with the production risk, e.g. over conversion rates. Sometimes contracts are drawn up which leave the whole production risk, and at least part of the market risk, with the farmer, who therefore has a more important entrepreneurial role. Contracts with some element of price guarantees can take the form of a sale at a fixed price, a sale with a guaranteed minimum price,or a sale with a bottom price and a ceiling price. In the last case the farmer suffers the market fluctuations within certain limits, i.e. he is protected against severe market depression, but does not have the benefit of unusually high market realisations. Using primarily the evidence of a survey made by the Boerenbond in 1970, the authors of the Belgian report considers that at least 35 per cent of pig production is done on contract.

Turning to vegetables, nearly all peas are grown under contract in Belgium, and about 70 per cent of beans, 60 per cent of carrots and 50 per cent of salsify. The main difference between the various forms of contract lies in the manner in which production and market risks are shared between the partners. In the majority of contracts for pea production (about 85 per cent of all contracts for peas) the contractor bears all the risks. The grower simply receives a fixed price per hectare, for which he has to make his land available and perform certain husbandry tasks excluding harvesting. For other contracts in which the risks are shared between the partners, the major difference consists of which partner decides the time of sowing and the variety to be used. About two-thirds of total supplies of chicory in Belgium are marketed on contract and about half the national production of hops.

Britain is the only country in the enlarged EEC to have carried out recently a full scale government inquiry into the use of contracts in agriculture. The results of this inquiry,[1] published in October 1972, showed that a total of about 40 per cent (or roughly £1,000 mn.) of farm produce in Britain is affected by contracts of one kind or another. However, setting aside grains (forward contracts registered with the Home-Grown Cereals Authority), sugar beet (all production contracted with the British Sugar Corporation), and products marketed through statutory marketing boards (notably milk), only about 11 per cent of total agricultural output was marketed on contract. The inquiry showed that products for which contracts were most important included broilers (48 per cent), fat pigs (33 per cent), eggs (22 per cent), and certain soft fruits (notably blackcurrants 50 per cent, raspberries 39 per cent and strawberries 25 per cent), and some vegetables for processing (notably peas and broad beans each about 70 per cent and carrots 25 per cent). The main conclusions of the Committee of Inquiry were "that there is scope for more contract farming; that encouragement is required for more horizontal grouping of producers; and that there is urgent need for a co-ordinating body spanning agricultural marketing

1. Report of the Committee of Inquiry on contract farming, HMSO, October 1972, Cmnd. 5099.

and production". The British government welcomed the report but has yet to accept its detailed findings and recommendations.

Attitudes to contracting in agriculture in Britain have undergone rapid change in recent years. Some ten or fifteen years ago there was widespread suspicion of contracts and some resistance to their use on the part of producers. Now it appears that it is the better educated and more progressive farmers who are most likely to participate in contract farming. The inquiry revealed a high degree of satisfaction (some 90 per cent of producers) over contracts. The main benefits to be obtained were seen as improved income stability (84 per cent of all contractors), this being regarded as much more important than the following two potential advantages - reduction in expenses and higher market returns, respectively 11 and 9 per cent of all producers. The main disadvantage appeared to be the loss of flexibility which inevitably follows from the use of contracts.

In Britain contracts with buyers of agricultural products are made either by individual farmers or by producers' organisations, many of which enjoy a disciplined membership contracted to supply all or a proportion of their output of the product in question. The relative importance of the latter is tending to increase but individual contracts are still common. Ownership integration on any scale is confined to broilers and eggs. The best-known case is that of J.B. Eastwood Ltd., a company which over a period of some 15 years has established a position of considerable market strength in both broilers and eggs. Eastwood is a fully integrated organisation, owning feed mills, hatcheries, egg-packing stations and broiler processing plants as well as several thousand hectares of agricultural land,required for the disposal of manure, and its own building construction unit.[1] There are, however, examples of ownership vertical integration in other types of production. Typically these consist of retailers owning packing or processing plants (Sainsbury's is a good example of a retailer with integrated supplies of bacon and other meat products), slaughterhouses possessing part-integrated supplies, and feed mills owning livestock units, hatcheries or specialised pig breeding enterprises. The situation appears to be rather stable. Food processors and retailers are currently showing little interest in integrating backwards into farm production. The impetus towards ownership integration forwards on the part of manufacturers of animal feeds seems to have come to a halt. Indeed there are signs that the policies of the national feed companies are tending to favour disengagement from livestock production under their own proprietorship. Any further development of integration under unified ownership is likely to be carried out under the control of producers' organisations, but even here there is no reason to anticipate any rapid or pronounced trend.

Of the three new member countries there is probably most to be learned about agricultural marketing in Denmark, where the exacting requirements of foreign markets and the absence of any substantial natural competitive advantages have compelled farmers' organisations to adopt a very high level of sophistication. The system is firmly based on co-operation which plays an important role in the marketing and processing of all agricultural products. In particular co-operatives dominate the dairy and pigmeat industries (together constituting about two-thirds of total agricultural production in

1. The development of this company and some other cases of vertical integration in Britain are described in Butterwick M.W., Vertical Integration and the Role of the Co-operatives, The Central Council for Agricultural and Horticultural Co-operation, London, 1969.

Denmark), in both of which their market share amounts to about 90 per cent. Co-operation is voluntary, but the effect of this dominating position is that in many parts of the country dairy and pig farmers have little alternative but to deal with their co-operative. In these circumstances vertical integration, accompanied by strict quality control, can be achieved under co-operative leadership without the use of contracts. In recent years agricultural co-operation has been strengthened as a result of the delegation by the government of powers over the disposition of the Sales Promotion Fund (grant-aided by the government) to a committee on which co-operatives are strongly represented. But the basis for co-operative strength in Denmark lies in the efficiency and professionalism of its management. In general Danish farmers have concurred in the surrender of marketing responsibility, including a fairly high degree of control over their production methods, because they feel that their co-operatives do a good job for them. Nevertheless, the recent reorganisation of the co-operative dairies has caused considerable unrest and there seems to be evidence that farmers are becoming more critical of both input prices available from co-operatives and market prices obtained by them. It is significant that, until recently, co-operatives have not tried to put pressure on their members to contract for supplies of co-operatively produced feed as part of an integration package. Feed contracts are effectively limited to short term contracts for a season.

The two most interesting fields of development in vertical integration are the poultry industry and horticulture. In the former competition between co-operatives and the private trade is at its strongest. Broiler production, amounting to some 60 mn. birds a year, is entirely on contract with processing plants, of which five are co-operative, marketing jointly with control of some 45 per cent of output. There are over thirty privately owned plants, many of which are quite small. All of these market individually with the exception of three controlled by the largest private feed company in Denmark. This company, whose output amounts to about one-fifth of total broiler production, contracts with its producers for feed, chicks, and technical assistance. Credit is available for purchases of feed and housing. It has been drawn into ownership integration through the need to increase throughput for one of its plants, located on one of the islands. It is general practice for producers to be paid a small premium for regular deliveries which acts as an inducement to abide by the contracts.

The co-operative share of egg marketing is rather larger - about 55 per cent. Co-operatives currently control seven packing stations. The private trade consists of one large company and a number of small packing stations. Contracts are usually for six months or a year, but they can be extended to as much as three years. There is a small amount of ownership integration by private feed interests which control some of the packing stations. Some contracts cortain a minimum price linked to the feed price, the former being set well below the anticipated market price. Integration arrangements for supplies of chicks are yet to be established on any scale. In some parts of Denmark either co-operative or private packing stations enjoy an element of local monopoly, but in most of the country there is active competition for supplies.

In Denmark the use of contracts in horticultural marketing on any scale began about five years ago, when a Special Products Committee was set up by the Agricultural Council. This organisation, working through a number of associations, began by obtaining contracts from large buyers, such as supermarkets, and then finding a sufficient number of producers capable of meeting the requirements of these contracts. The scheme has made rapid progress. About half the total acreage devoted to horticultural production in Denmark is now marketed on contract. The largest single activity is in peas, where all producers are joined together in a group contract which provides for the supply of seeds and harvesting machinery by the processing industry. Prices are established annually by negotiation. Contracts for vegetables are normally on an annual basis, though five year contracts have been made with cucumber growers in order to justify the investment in a special processing plant.

Apart from the poultry industry the private sector is concerned with two main products relevant to vertical integration. The private bacon factories which operate mainly in some regions of Jutland are responsible for about 10 per cent of production. They normally do not use contracts with farmers to ensure supplies. By contrast the private dairies, which control about 10 - 15 per cent of supplies, normally operate under annual contracts with dairy farmers, though sometimes the contracts run for three to five years. Prices paid are closely related to those quoted by the co-operative dairies. Usually contracts give farmers the right to claim the return of a certain percentage of skimmed milk for feeding.

Vertical integration is strongly established in Danish agriculture mostly on the basis of marketing contracts or understandings, often unwritten, between co-operatives and their members. Ownership integration by interests outside farming is effectively confined to two cases, a feed company with broiler interests and a retailing organisation which owns egg packing stations. Without a disciplined marketing system Danish farming, which relies on exports for the disposal of about two-thirds of total production, could hardly have survived the last decade when the country has been heavily disadvantaged in the important EEC market. In this respect Denmark differs from, for example, its neighbour Norway, where contract production is also strongly established for eggs, broilers, pigs and veal, and co-operatives are likewise important in all the main branches of agricultural marketing. But in Norway the role of the co-operatives is essentially defensive, part of a market support system based on high tariff barriers and other import controls, a policy assisted through the market regulation work of the co-operatives. By contrast, integration arrangements in Denmark are essentially related to the export trade and its requirements.

The rich diversity of farming and the marketing of farm products in France makes it difficult to provide any satisfactory summary of the situation in that country so far as vertical integration is concerned. Grain should perhaps be considered first, since France is much the most important grain producer in the Community. As is well-known, the French co-operatives play an important role in the collection, storage and first marketing of all grains, but particularly of wheat, for which they control about 80 per cent of the "collecte". To date, however, they have not integrated forward to any significant extent into the milling industry. Only about 4 per cent of French milling capacity is under the control of the co-operatives, and integration further forwards into second processing (e.g. biscuits) has been negligible. The use of contracts is limited to durum wheat and brewing barley. Contracts for the latter, which date back to 1931, now cover about 30 per cent of total supplies. Clauses in the contracts deal with the quality and condition of the grain (humidity, germination, calibration, etc.) and lay down the conditions for delivery.

There are no price guarantees, prices paid to farmers being related to standard market rates, plus special bonuses granted for brewing barleys fixed each year in relation to foreseeable supply and demand.
It could be argued that these contracts do not improve the economic power of the growers, partly because the contracts are placed with individual farmers, the maltsters preferring the bigger producers, and partly because the obligations placed by the contracts on farmers are heavier than those borne by the buyers.

There is an extensive degree of vertical integration in the production of eggs and broilers in France. About 20 per cent of all eggs marketed come from organisations in which some form of ownership integration exists, either from farms which have integrated into packing and sale of eggs or from farms with integrated supplies of feeds. The feed industry itself has some direct interest in egg production, but there is some recent evidence that there has been a withdrawal from this type of ownership integration. Contracts which seem to control some 80 per cent of farming's vertical integration links with industry in this sector, can include an element of guarantee to the farmer either through price guarantees or in terms of remuneration per bird. Contracts with price guarantees often provide for a minimum price paid in the form of an advanced payment. A further alternative to contracts with guarantees and the ordinary delivery contracts are "made-to-measure" contracts, but these are relatively rare. In a few cases the whole of the commercial risk is borne by the integrator. In the rapidly expanding broiler industry (about 90 per cent of production is industrial) contracts predominate, mostly initiated by the poultry slaughtering plant. The feed industry has taken an active interest in integration arrangements, poultry feed amounting to 14 per cent of total feed sales. There are a number of examples of participation in this sector in France. Normally the initiative has come from the co-operatives but there have also been some cases of private firms gaining control of co-operatives or SICA's. On the subject of links between broiler producers and "outside" interests, it is said that the poultry meat producers know the limitations of a production system based on a contractual economy. But participation in operations downwards is not linked solely to a financial contribution. It also depends, especially in the long term, on the commercial strategy and management policy employed in the firm.

Perhaps the most interesting development in the field of vertical integration in France has been in the commercial production of veal calves, an industry only about ten years old. Feed manufacturers became deeply involved in this business initially because of the need to improve the supplies of week-old calves and subsequently in order to take part in the marketing of the fattened calf, the latter being largely necessary in order to secure their financial stake in the undertakings. The author of the French report estimates that production without written contract is limited to 15 - 20 per cent of total production of veal calves, and that private feed manufacturers control about three quarters of production. In a typical contract the farmer undertakes to buy all his dried milk from the manufacturer and agrees to conform to certain technical requirements. The manufacturer supplies the calves and feed, financing their cost, and takes charge of the marketing. Occasionally there is some guarantee element in the price stipulation in the contract, but normally the farmer is guaranteed an outlet, but not a fixed price. Consequently he has to bear the market risk as well as the whole of the production risk, which is still quite severe. The main benefits of contracting therefore for the farmer are finance and technical assistance, apart from the advantage mentioned earlier of securing guaranteed supplies of the week-old calves.

Vertical integration arrangements are important for a number of farm products in France including wine, a number of industrial fruits and vegetables, potatoes, tomatoes and milk products.

For the purposes of this chapter comment will be confined to the pig industry, which is of particular interest in view of the important role taken in vertical integration by government organisations. Vertical integration in the pig industry in France really dates from 1963 corresponding with the over-production crisis at that time in the feed industry. As a consequence of this situation manufacturers of feeds became concerned to contract for supply of their products to pig farmers, and then extended their interests to the supply of other inputs (weaner pigs, buildings, and veterinary services). They thus became involved in granting credit to their customers, and hence moved into the marketing of the pigs in order to protect their financial stake. In this process they encountered certain important difficulties, including resistance from established marketing organisations, and statutory requirements in some areas for the use of municipal slaughterhouses for the slaughter of pigs. A complicated market situation has therefore developed in which a number of interests are occasionally involved, including slaughterhouses, breeders and the feed manufacturers themselves. In

marketing contracts a number of different methods are used for fixing prices, including payment on the basis of a fixed sale price, payment on the basis of market prices with a guarantee, etc. An interesting feature of the situation in France is that the pigmeat processing industries have to date taken a very limited part in contractual arrangements.
The reasons for this include the influence of municipal slaughterhouses, the relatively small demand for fresh pork in France, and the structure of the processing industry itself. Changes currently taking place in the processing industry will be likely, however, to lead to a growth in contractual arrangements stimulated by the need to secure regular supplies of reliable qualities of pigmeat.

Attempts by the French government to influence or control relationships between farmers, merchants and industrial interests by collective agreements or other means go back more than a generation. As long ago as 1936 a draft Bill on this subject was adopted by the National Assembly, but failed before the Senate. Further legislation was attempted in 1960 and 1962. In 1964[1] a Law was passed designed to establish a base for model contracts in agriculture, to prevent producers becoming "squeezed" by integration arrangements, and to promote collective contracts in agriculture. It is not, however, only by legislation that the French government has sought to intervene in vertical integration. For instance in the pig sector several grants are available to promote group activity, mostly channelled through FORMA and its Plan for improving the market value of pigmeat. Financial assistance is available to farmers who are members of groups to assist them in obtaining aid for building investments, for hygiene operations, and for the salaries of technicians attached to groups. As a consequence of this assistance there

1. Referred to in the Council of Europe's Report on contract farming and vertical integration in European agriculture, January 1973

has been a large increase in the amount of group activity in pig marketing, which now controls more than a third of the total pig market. Some of these groups are selling on contract, but may have encountered the difficulty mentioned earlier of finding suitable partners among the processing industries who are interested in making contracts. Looking to the future the author of the French study believes that it may be expected that the movement on the part of the co-operatives and production organisations in general to integrate slaughtering will continue in the coming years.

Perhaps the most remarkable feature about the situation in Germany is the comparative lack of the use of contracts in egg marketing. No less than 65 per cent of total production is sold without contracts. This is explained by the problems of "self-marketing", i.e. direct sales by farmers to consumers or retailers, a practice still common in the Federal Republic. With this method of marketing, farmers may find themselves with higher costs, but these are often more than offset by the higher realisations they obtain as a result of consumers being prepared to pay more for what they believe to be a fresher product and the advantage of less fluctuation in prices. Only about a quarter of all eggs pass through commercial packing stations. There is currently a tendency in Germany towards increased concentration in the egg industry and more producers are tending to pack their eggs on their own farms. It is, however, not expected that there will be much change in the general pattern of egg marketing. In his report on the situation in Germany Dr. von Alvensleben draws attention to the fact that egg production is characterised by average production risks, but high market and investment risks. In contracts made between the packing stations and producers some attempts have been made at risk-sharing.

There are also cases of "package" arrangements which may include the supply of farm buildings. Some eggs are produced on commission arrangements, whereby the farmer carries none of the risks. This is a system of production which is generally frowned on, though presumably it must fulfil a function for some types of farmers.

Vertical integration links are of very little importance in the beef sector. Calf schemes for veal production have developed more importance in Germany as feed has become a more significant part of production costs. Commission contracts are more common in veal production. Dairy farmers in Germany who are members of co-operatives are obliged to make deliveries to them, but this is not considered to be a contract of significance to the development of vertical integration. Likewise dairy farmers delivering to private dairies have a form of contract of a similar nature, though this may often be unwritten. The dairy farmer admittedly lacks alternative outlets for his produce, but equally the dairy itself can hardly refuse a farmer's supplies. In many cases the two are therefore effectively bound together whether a contract exists or not.

About 15 per cent of all pigs marketed in Germany are sold on contracts. These can take various forms. The objectives to be achieved include the provision of credit to the farmer by feed manufacturers, the securing of outlets by farmers and of supplies by the processing industries, and the improvement of quality of product. Prices determined under contracts can be either fixed or derived from a market price or based on an average. There are few examples of participation, but Dr. Von Alvensleben quotes the example of Uniporc. Other interesting examples of participation are provided by Nordmark-Ei in egg production and the well-known case of the co-operative undertaking Unterland in fruits and vegetables. There is also some evidence of joint ventures in starch manufacture.

Finally, it is worth noting the tendencies in the use of contracts in the marketing of quality grains (quality wheat, brewing barley) in Germany. More than 100 producer groups have been founded for this purpose on the basis of the "Marktstrukturgesetz". But their ties to the next market stages are in most cases informal and not very intensive. Real contract production of quality wheat is estimated at about 60,000 tons a year. Since 1971 there has been a considerable increase in the use of contracts for brewing barley. By 1972 about 25 per cent of the German production was already based on contracts. But market prices fell below the contract prices and this caused a severe cut-back in contract production in 1973. The further development of the use of contracts in grain marketing in Germany appears uncertain.

There is very little evidence of vertical integration links in agriculture in Ireland. This slow development may be partly due to the state of agricultural co-operation which, until recently, was virtually confined to the dairy industry. This is still by far the most important co-operative activity, though diversification has occurred in the direction of horticultural marketing, feed manufacture and livestock and meat marketing. Vertical integration is now beginning to affect the marketing of livestock and meat and meat products, which together constitute a major part of Ireland's agricultural exports The most significant development in this field occurred about three years ago when the largest meat business in

Dublin, with a sizeable export trade, was acquired by a large livestock co-operative based in the south. Brewing barley is sometimes sold on contract. The only other farm products for which contracts are used on any scale in Ireland are vegetables for canning and freezing. It is likely that integration will develop more rapidly in future as Ireland expands its markets within the Community, but at present both ownership vertical integration and the use of contracts play very little part in agricultural marketing.

The general impression conveyed by the report from Italy is that there are especially large variations in the degree of vertical integration in Italian agriculture, and this is confirmed by the statistics shown in the Appendix to this report. It is evidently impossible to generalise about what type of contract is the most favourable for the three most interested parties, farmers, processors and consumers, but Prof. Ruosi believes that all contracts have so far been substantially positive or at least not negative for all three groups. In Italy it cannot be said with certainty that production under contracts (almost exclusively delivery contracts) has greatly affected in absolute terms the balance between demand and supply of production. However, given the almost total disorganisation which evidently reigned in markets for many products before the spread of production under contract this form of production can only, in the author's opinion, have made a positive contribution in this field.

One of the leading oddities of the agricultural situation in Italy is the absence of contracts in pig production. There are a few very large pig units in Italy, including one owned by the leading Italian grain importer, but contracts are virtually non-existent. The report from Italy identifies only one example and that in a region of the Mezzogiorno which is considered to be generally unsuitable for this type of farming. Analysing the reasons for the lack of contract production the author draws attention to three causes. First, in his view, for pigs (as apparently also for milk) the requirements of product uniformity are less stringent than is the case for other agricultural products. Secondly, the processors prefer consistently to exploit the disorganisation and lack of transparency of the market which enables them to overpower their agricultural partners who would, without doubt, become far stronger through contract production. And, thirdly, the exigencies of technical assistance, financing and commercial outlets are very much less noticeable in this sector.

A good example of integration which has been rapidly applied to a product in a country where otherwise integration is uncommon is provided by the tomato industry in Italy. Contracts are widely used to lay down the specific terms for deliveries of certain quantities from defined areas at prices fixed in advance. The processing partner is interested in the technical aspects of production to the extent of influencing the type of seeds used, but in other respects there is little interference in production by the integrator. The contract lays down terms for delivery of the product and specifies quantity and quality, though so far as the latter is concerned the specifications are usually worded so that some latitude is left open for discussion between the parties. Prices are predetermined for the whole season on the basis either of a fixed price, or a minimum price, or a formula constituting a compromise between the two. Payment is usually by instalment during or after delivery of the tomatoes and some processors make advance payments. It appears that there are still some problems to be overcome in relation to contracts for tomatoes in Italy, notably in the methods used to settle disputes over quality, but in general the contracting system has introduced stability into the market and improved the quality of the product. Indeed it can be argued that the production of tomatoes, a highly perishable product, could hardly have developed on the present scale without the security of these contracts. Perhaps the least satisfactory aspect is that negotiation over prices is often between individual farmers and processors. There has been very little progress in the establishment of bargaining strength on the producers' side.

So far as producer organisations are concerned Prof Ruosi considers that the growth of co-operation has not had the slightest effect either on consumption and consumer prices or on farmers who are not members of co-operatives, and who have not only remained unharmed by their voluntary exclusion from the co-operatives, but, on the contrary, may have actually profited from it. In Italy farmers who are not members of co-operatives can still benefit indirectly from the marketing activities of the co-operative movement, as well as obtaining better conditions offered them by the processing industry, and thus securing an increasing proportion of the market and making life difficult for the co-operatives themselves.

For ~~over a century~~ vertical integration ~~has affected~~ agriculture in the Netherlands, where co-operative activity is particularly strongly entrenched. It could be argued that co-operation within agricultural co-operatives should be classed as participation on the grounds that farmers jointly participate in the capital of the co-operatives and also in their management. Consequently emphasis should be put on the development of the co-operatives and how they operate in the various sectors of marketing and processing farm products. In arguing that membership of a co-operative and the use of its services, notably for marketing, constitutes an important element of vertical integration, such a view is not commonly accepted. For instance, the author of the German study is concerned with the activities of co-operative organisations forwards, but does not treat the link between farmers and their co-operatives as representing in itself an element of integration deserving of any special attention. Most probably it would be generally accepted that it is rather easy to exaggerate the dependence of large-scale co-operatives on capital provided by their members, as against that drawn from the retained profits of these organisations and outside financial sources including the co-operative banks. Likewise, in practice the control of the running of co-operatives is nowadays more likely to reside with their professional managers than with farmer members. Due to the complexities of modern agri-business the latter often have to accede in decisions arrived at by managers of their co-operatives rather than participate in them. In the Netherlands, as elsewhere, co-operatives must be run for the benefit of their members, but frequently the degree of practical participation by individual members is necessarily very slight. While the member-co-operative link must be kept in proportion in any discussion of vertical integration, the overall responsibilities of co-operative organisations in these developments are very considerable, a point which is re-emphasised in Chapter VII of this report.

An example of this point is provided by the situation in the beet-crushing industry in the Netherlands.
An interesting ~~development~~ ~~constitutes~~

the Suiker Unie,[1] the co-operatively owned refineries, which now control about 63 per cent of Dutch sugar production. While the contracts used by Suiker Unie are much the same as those of CSM, the private undertaking with six factories, the former are regarded as constituting participation on the grounds that part of its capital is subscribed by members and, at least theoretically, they have ultimate control of management. But the practical difference for farmers of dealing with Suiker Unie or CSM must be regarded as very slight. Another example is offered by the potato starch industry. Here there are evidently two forms of participation, through a co-operative (AVEBE with about 7,000 members) and through farmers buying shares in a limited liability company set up for this purpose. In neither case does participation appear in practice to be of any real significance. In the Netherlands contracts now affect potatoes marketed for human consumption, as to about 10 - 15 per cent of total production. One feature of the contracting system is that contracts with both the private trade and the co-operatives include "pooling", but it could be argued that the private contracts must be distinguished from those of the co-operatives since they do not fall under the heading of "participation". A stronger development of contracting has occurred in the industrial sector (potato chips, etc.). Most of the processing industry is in private hands, but the co-operatives also have a stake in the industry including minority interests in the private trade. Contracts are of four kinds: ordinary sale contracts at current prices, contracts for one or more years at fixed prices, minimum price contracts with profit sharing, and price pooling contracts.

1. Suiker Unie has shares in a number of integrated activities such as distilling, waste processing, pulp drying and confectionery manufacture.

As in Germany there has been a development recently in the marketing on contract of brewing barley in the Netherlands, the difficulties noted in the reports being much the same in both countries. Centralised grain marketing by producers' organisations has developed strongly in the Netherlands. The system, which includes pooling arrangements, is an important element of co-operative activity in the Netherlands. Another is slaughtering of pigs and marketing of carcasses by co-operative slaughterhouses.

Production under contract of pigs began about 20 - 25 years ago, the first contracts being between farmers and the private processing plants. The latter were interested in securing regular supplies of quality products, and in maintaining throughput for their plants. Cattle dealers and feed manufacturers now take part in these contracts along with farmers and slaughterhouses. The contractual arrangements are usually co-ordinated by the feed manufacturers, but slaughterhouses can also take the initiative. In this connection it is also worth noting the interests of firms like Koudijs, Homburg and Unilever in pig breeding activities. Several different types of contracts are used for pig fattening. Commission contracts account for no less than 32 per cent of all contracts. Under this system the farmer takes care of the pigs but they do not become his property. In exchange for his work the farmer receives a regular remuneration either as a sum for the use of his buildings or in relation to numbers of animals, or a combination of the two. Often the agreement provides for the farmer, if he obtains favourable results, to receive a share of profits. Fixed price contracts are relatively uncommon, but contracts with a guaranteed minimum price account for 21 per cent of total pigs produced under contract. Finally, there is the simple system whereby the farmer undertakes to deliver a certain number of pigs to a specific buyer and prices are determined on the basis of market prices on the date of delivery. This system accounts for 46 per cent of pigs marketed under contract. Profit and risk sharing schemes have been well developed in the Netherlands and in this the co-operatives have taken a leading part.

Finally, one should note the integration arrangements that have been made for the broiler industry in the Netherlands, which have served as a model also for the egg industry. In these arrangements, which are associated with the co-operative brand name FRI-KI, vertical integration revolves round the processing plant but other interests, feed manufacturers, hatcheries, etc., are associated with the producers in contracts. The expressed objectives of this system are, first, the spread of market risk, so that when prices fluctuate considerably all stages of production get a reasonable share in the losses or the profits; secondly, the adjustment of capacities of the participants, feed, hatching eggs, etc: thirdly, the improvement of the quality and uniformity of the end product so that all partners of the scheme benefit; and, fourthly, the lowering of production costs at all stages by the best possible co-ordination.

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The reports from the member countries show that there are considerable differences in the extent of the development of vertical integration between the various countries as well as between different farm products. At one end of the scale is the Netherlands where vertical integration (at least if the broadest use of the term is adopted) has been applied to all the main branches of agriculture and horticulture, and at the other end is Italy, where it is much less common, being effectively limited to a small number of specialised products. The basic reasons for these differences have already been indicated. Vertical integration is closely associated with a sophisticated agricultural industry capable of supplying products to a specified quality. The level of technical proficiency in agriculture varies greatly both between countries and within individual countries. Likewise, there are important differences between regions of the Community in the standards and structure of food retailing and of the various sectors of the food industry. It is processors of agricultural products into mass-produced, packaged and usually branded foods that are particularly interested in securing their supplies through vertical integration.

The more concentrated and sophisticated is a country's food industry the more it is likely to wish to make integration arrangements for its supplies. Likewise the effects on integration of the structure of the feedingstuffs industry must be re-emphasised. A concentrated feed industry, such as exists in Britain or the Netherlands, is more likely to wish to secure its outlets through contracts or ownership vertical integration, than a more fragmented industry such as is found in Ireland or Italy.

As earlier chapters have shown, some products are more suitable for vertical integration than others. A product susceptible to severe market risks is more likely to be the subject of vertical integration than one characterised by stable prices. Grain which can be easily and cheaply stored is less liable to vertical integration than broilers or young pigs. Products, such as hops or sugar beet, for which few market outlets exist, are very susceptible to vertical integration. A number of other criteria for products and their liability to vertical integration could be given, including the degree of capital intensity of the farm business required for economic production (see Appendix).

Summarising the likely developments for the future it seems likely that the pace of change will accelerate, that average technical proficiency in farming will improve rapidly, that food retailing will continue to move towards greater use of self-service and supermarket trading, and that throughout the Community the food industry will become more concentrated and more sophisticated; and that these changes will give rise to a greater use of vertical integration arrangements. In assessing the reasons for differences in the state of vertical integration in the EEC account must also be taken of governmental action in this field. The effects of legislation in this field tend to be indirect. For example in Germany, the Milk and Fat Act has compelled dairy farmers to make deliveries of milk to dairies with the consequence that no formal contracts are required. The Market Structure Act has stimulated the development of disciplined producer groups. The Potato Spirits Monopoly Act has affected potato marketing for distilling purposes. And legislation and grant aid for slaughterhouses has changed the pattern of livestock marketing with indirect effects on vertical integration. It must, however, be noted in this connection that the EEC country most free from direct government involvement in agricultural marketing, the Netherlands, has witnessed a strong development of various forms of vertical integration.

A very important cause of the differences in the state of vertical integration in the Community lies in the structure and efficiency of producers' organisations. To take part successfully in vertical integration co-operatives must possess all the obvious characteristics of a successful business, but in particular they must be able to depend on obtaining large and preferably certain quantities of their members' products for marketing. This can best be done through the use of contracts between members and their co-operative, but it can also be achieved through long-established traditional loyalty or the sheer market strength of the organisation. To the extent that co-operatives are poorly managed, or divided by rivalry, or lack disciplined membership, they are less well placed to take part effectively in vertical integration.

Fortunately the structure of agricultural co-operation in the member countries is by no means fixed and immutable. Change is being forced on co-operatives by the pressure of the younger generation of farmers dissatisfied with antiquated methods and less preoccupied by the need to perpetuate in commercial life the divisions of religious and political affiliations which have previously kept rival co-operatives immune from economic pressures, leading to mergers between organisations that are no longer viable on their own. Change can also be accelerated by administrative action. A good example of this is the stimulus to more rigorous self-examination on the part of co-operatives which has been provided by the grant aid offered to disciplined groups, and the need to take account of, and to come to terms with, these new organisations.

Attitudes to vertical integration among farmers in the Community also appear to be changing. Until recently suspicion of contracts seemed to be widespread and fears were expressed that the experiences of contracted farmers in North America might be duplicated in Europe. While these fears were not unreasonable it would be a mistake to ignore some of the special features of the American farming scene that contributed to the abuses of vertical integration, particularly the lack of strongly established producers' organisations. Many farmers in both the original and new member countries now realise that there are benefits to be obtained from vertical integration, and that they should organise themselves to participate in it.

VII

THE ROLE OF PRODUCERS' ORGANISATIONS

1. Co-operatives and their members

It is evident from the reports on the state of vertical integration in the original EEC member countries that co-operatives are currently taking an important part in vertical integration in the broad sense. The outstanding example is the Netherlands, but other examples of this activity can be drawn from France and the other member countries. This chapter is concerned with three main questions: What can co-operatives do in the interests of their members to improve co-ordination of agricultural marketing; what is the best organisation to achieve these objectives; and what are the main difficulties they will face in the future and how can these be alleviated?[1]

The first question contains the phrase "in the interests of their members". To some this might appear to be too narrow an aim for the co-operative movement. What about the contribution that co-operation can make through improved marketing to reduction in expenditure on market support? Should not agricultural co-operatives also bear in mind the need to serve consumers through providing, or assisting to provide, high quality food at low prices? Responsible co-operatives cannot lose sight of the need to fulfil broad policy objectives of this kind, and the fact that

1. For convenience the word co-operative is used throughout this chapter to cover all organisations controlled by producers whatever their legal status, membership rules, etc.

their activities should help to further them is an important part of their case for financial support from governments. Objectives which lie outside a narrow definition of "in the interests of their members", and indeed which might appear in the short run to be contrary to them, cannot be ignored. At the same time co-operatives can sensibly concentrate their policies solely to benefit their members, since in practice they will hardly be able to achieve this objective in the long run without taking heed of their impact on others, and notably on consumers.

But do agricultural co-operatives in fact operate in the interests of their members? The question is often asked, not least by members, who are sometimes inclined to regard their co-operative as something outside themselves, especially if it is large and long established. It is frequently asserted that co-operatives develop policies more related to the aggrandisement of the organisation or the ambitions of managers than of the well-being of members. This may sometimes be the case, but it is certainly not sufficient grounds for denying the general role that co-operatives can play on behalf of farmers. Clearly it is up to members to put right policies they do not like, if necessary by organising themselves against the management. Co-operatives cannot be expected to please all their members equally. The more dynamic and forward looking is a co-operative the more it will tread on some sensitive farmers' toes. But at least co-operatives represent the only commercial organisations which farmers own and are in a position to influence directly so that their own interests are constantly served.

Undoubtedly tensions exist within most agricultural co-operatives, both between members with their differing needs and objectives and between members and professional managers. This problem is not, of course, unique to agricultural co-operatives. Most businesses suffer from similar tensions. The most typical, that between the production and sales departments, can be compared with the members'/managers' tensions found in so many co-operatives. The Boards of Directors of co-operatives have an important role in reconciling these important differences, and particularly in interpreting to managers what are the needs of their members.

Co-operatives in Western Europe vary greatly in size, function, membership, rules of discipline, financial strength, etc., but the main division is between specialised groups and multi-purpose co-operatives. Both can take part in vertical integration. The particular interest of the latter is that through involvement in both requirements (particularly animal feeds) and marketing they are able to initiate complete vertical integration schemes in which the supply of inputs is linked with the marketing of farm produce or, in collaboration with associated processing co-operatives, of processed products. Credit can be injected through financial institutions with which the co-operative has close links. The Dutch system is often regarded as a model of how co-operatives can function both horizontally and vertically in the service of its members. There is certainly much to admire in their organisation. But the policy statements of the boards of the Dutch Cooperatives reveal that there is no question of adopting a static approach to the most appropriate structure of co-operation. Changes are currently taking place, an illustration of the danger of attempting to define the ideal model of a co-operative.

2. The structure of co-operation

The accummulation of meaningful quantities of farm produce, the concentration of supplies for marketing through horizontal integration, may involve the creation of a pyramid structure. This structure, whereby local co-operatives perform in effect a procurement function on behalf of a regional or central co-operative, is particularly relevant when the commodity in question is produced on a wide scale by a large number of farmers and when there is strong concentration of buying. The best example of this case is provided by the organisation of supplies of grain in the Netherlands. We have previously noted that the co-operatives have set up a system of links between the local co-operatives and the centre where marketing decisions are actually made. The problem of communications and the danger of isolation of farmers and their local bodies are recognised, but it is doubtful whether any satisfactory solution can ever be found. In the context of small-scale farming there is really no choice about the surrender of marketing to organisations which may seem remote to farmers however much they attempt to keep their members in touch with what is being done on their behalf. From the assumption of marketing powers there follows a responsibility for quality control and thus supply control, the exercise of which will often bring co-operatives into conflict with their members. The rationalisation of the co-operative dairies in Denmark with its implications for dairy farmers is a good example of the sort of difficulties involved in any re-organisation scheme promoted by co-operatives. The general interests of dairy farming, or any other sector of agriculture, can run counter to the individual interests of some producers who are thereby estranged from their co-operative.

The Dutch system, or the pyramid structure of producer groups linked to a union of producer groups, goes some way to providing a compromise between commercial necessities and the desirability of retaining a degree of identification with the co-operative organisation on the part of producers. It seems likely that the sense of isolation mentioned earlier will become more profound. In these circumstances it becomes all the more important that co-operatives are patently fulfilling a farming need, that the importance of their role is recognised and appreciated, and that co-operatives are seen to be working effectively on their members' behalf, carrying out an indispensable function in marketing. It is difficult to lay too much stress on the paramount need to preserve identification of interest between farmers and their co-operatives, even if a pyramid structure becomes necessary, and to avoid the growth of "we-they" attitudes.

A pyramid structure may be forced on agricultural co-operation by the pressures of commercial necessity. Its disadvantages - notably remoteness of members from decision making and the possibility of higher administrative costs - are well known. Its major weakness, however, is that it is most unlikely to be an effective method of appreciably increasing countervailing power and improving agriculture's bargaining strength. It is hardly possible to envisage a pyramid structure being created to cover the whole Community which would effectively channel through one central organisation a sufficient part of total supplies of any of the major farm commodities so as to be able to exert an appreciable influence on market prices. Indeed it must be questionable whether such an organisation would be desirable even if it were feasible. The idea of a co-operative colossus of this kind, and the consequent implications for co-operative bureaucracy seem very alarming.

So many different factors are relevant to the structure of agricultural co-operation that it is highly dangerous to lay down what is the most appropriate form throughout the Community. Criteria for aids available to co-operatives, discussed later in this chapter, must take account of this. It would be wrong to enforce a model of co-operative structure and activity through offering assistance to co-operatives with strict rules over eligibility. A more natural growth is to be preferred even if progress appears to be slower than what might be achieved as a result of large-scale State intervention.

3. Market strength through bargaining associations

What alternatives can be employed if, as appears to be the case, a large-scale pyramid structure is neither possible nor appropriate for co-operative activity for all agricultural commodities? The first point that arises is whether it is necessary for supplies to be physically channelled through a pyramid in order to gain bargaining strength. For commodities that are subject to day to day trading the use of a marketing bottleneck has its attractions, though even without it co-operatives might be able to assist their joint strength by increased trading among themselves and by a free exchange of market information. But in the case of commodities suitable for contracting the situation appears different. Since one of the conclusions of this report is that the use of contracts in agriculture is likely to increase considerably, it is right to look further into their relevance to bargaining strength.

In the United States so-called Bargaining Associations have been in existence for a number of years. They are particularly strong in fruits and vegetables and potatoes. With the active support of the Department of Agriculture they have been set up in order to negotiate on behalf of individuals or local co-operatives about the terms and conditions and, of course, prices for contracts with processors. They do not handle the products either as principals or agents. Their role is to bring together quantities of produce for the purpose of negotiation only. In other respects local co-operatives retain their autonomy.

Why has this system not been employed in Western Europe? One obvious reason is that the legal position is different so far as restrictive practices are concerned. Governments have been reluctant to make available to producers such direct powers to influence markets without a degree of government control which might largely vitiate them. There are two other important reasons. First, Western Europe has until recently consisted of a number of individual national markets for agricultural products. The larger becomes the economic community, the more relevant bargaining associations appear to become. Secondly, account must be taken of the fact that strong co-operatives already exist in most of these countries so that the case for bargaining associations may appear less compelling. The extension of the Community, and especially the inclusion of two countries in which agricultural co-operation is much less strongly established, presents an opportunity for examining further the possible relevance of bargaining associations to a number of agricultural products suitable for contracting.

The establishment of bargaining associations working on a Community basis might require the creation of new organisations or at least a major transformation of existing bodies. An important role that will be increasingly available to existing co-operatives is in participation in joint ventures. If in the future joint ventures become a more common feature of vertical integration, co-operatives will have a major responsibility for initiating them, for securing satisfactory terms for their members, and for participating in their management. The co-operatives directly involved are likely to be local or regional, but central co-operatives may take part in an advisory and co-ordinating capacity.

The emphasis of the above discussion has been on the function of co-operatives and their organisation in relation to vertical integration. Some change in role is anticipated though their overall importance is likely to increase. This need not imply that the private sector will not continue to make a significant contribution to agricultural merchanting. It would be a sad day for agriculture if it lost the initiative and flexibility of private merchants. At the very least they serve producers' interests by keeping co-operatives on their toes. Not all producers will want to be members of co-operatives and not all products are especially suitable for large-scale co-operation. There should be scope for the work of private merchants to continue. Indeed it is important that the right environment is created so that private merchants can survive and prosper.

4. Financial and other assistance to producers' organisations

What assistance will co-operatives require in order to achieve their marketing objectives and to realise the most appropriate structure? It is sometimes argued that nothing can be done in agriculture (in the broad sense) without major intervention from the State accompanied by generous financial incentives. It is all too easy to think that agriculture's problems, including those in the marketing sector can be rapidly solved through liberal subsidisation. But proposals for aids should be approached with extreme caution. Co-operatives (and for that matter the private trade) may justifiably receive some financial assistance as well as guidance and advice, but if a solid and enduring base is to be created, subsidies should be kept to a minimum. Furthermore if the project in question contributes to the efficiency of agricultural marketing, if its life expectancy is of a reasonable duration, and if satisfactory assurances as to its viability are forthcoming, then any financial aids should in principle be available to participants whether they can reasonably be defined as farmers or farmers' organisations, or lie outside this definition. It must anyway be recognised that it is becoming increasingly difficult to make satisfactory clear-cut definitions of this kind.

Starting-up grants and assistance to capital projects, preferably through credit rate subsidisation, are acceptable methods of aiding co-operatives, provided their level is pitched so that these aids act merely as an incentive and a means of drawing attention to the type of organisation and investment which is likely to be appropriate to the development of agricultural marketing. Naturally all subsidisation results in economic distortion. In addition there is the disadvantage in starting-up grants that they encourage the formation of new organisations rather than the reform of existing ones. Grant aid and other assistance must be kept as low as possible, otherwise there is a danger that subsidies are pursued for their own sake. Clearly aid must only be granted when there is a reasonably firm prospect that the proposal is viable. While each application must be examined on its merits, it would be right to lay down as a condition that members should have a formal contract with the organisation which would ensure that it could legally oblige them to deliver all or a stated proportion of the products covered by the contract. A co-operative organisation with a disciplined membership is able, if ~~appropriate~~, to make contracts forward on behalf of its members. It would not, however, be right to limit grant aid to co-operatives which only make sales on contracts, not least because this would unnecessarily restrict their commercial freedom.

The suggestion is sometimes made that agricultural co-operatives have unique financing problems, which justify the provision to them of funds from outside sources, including the State. (It is generally argued that if funds are provided, they should be at concessional rates). The case rests mainly on the argument that their members, farmers and horticulturists, require all the capital available to them for investment in their own farm businesses, and will never be able to release to their organisations the additional equity capital that they need. This is certainly the case in some areas of Western Europe, of which Italy is one example, but the argument does not appear to be generally valid. Besides any overall assistance to co-operatives runs counter to the preferred policy that they should be guided by economic considerations and regarded as commercially viable organisations. Like other businesses, co-operatives must themselves find solutions to their financing problems. In this they will tend to be assisted by some of the courses of action suggested earlier. By being seen to act dynamically on their members' behalf they will stand a better chance of attracting funds from their members. By collaborating with interests outside agriculture they will be able to tap fresh sources of finance for new projects. And by selling on contracts their members' contracted supplies they will be better placed to borrow both short and long term. In some parts of the Community special sources of finance may be required for producers' organisations, but their need can best be assessed on a national or regional basis.

Apart from modest subsidisation to help disciplined co-operatives get off the ground and to aid viable capital projects there are three areas related to vertical integration which could benefit substantially from aid from Community sources. First, in-depth studies of markets for the various agricultural commodities are constantly required to improve market transparency. These should be generally available and therefore could be used by both co-operative and private interests in marketing. A major feature of the preparation of this report has been the revelation of the degree of obscurity which still enshrouds agricultural marketing in some member countries. Secondly, further attention needs to be directed towards management problems involved in vertical integration in agriculture, the organisation of joint ventures, etc. Management courses in these subjects need to be further developed. And, thirdly, funds could be made available to subsidise the cost of examination in detail of individual projects in this field, eligibility for these grants to be general and not confined only to producers' organisations, though normally only schemes involving participation by producers would be considered. Much could be achieved to the benefit of co-ordination of agricultural marketing through concentration of Community aid on these areas, and at relatively modest cost.

5. The responsibilities of producers' organisations

Vertical integration in agriculture offers producers' organisations a special opportunity. They have the responsibility to ensure that the various integration arrangements, the use of contracts in marketing, ownership integration by co-operative organisations and joint ventures with non-agricultural interests, are established on a firm and fair footing. Vertical integration will proceed at varying rates, influenced by the factors indicated at the end of the preceding chapter. Developments can be stimulated and guided by the small-scale direct financial aids and other assistance suggested above. But essentially the responsibility for safeguarding and promoting farmers' interests will rest with producers' organisations, and the successful evolution of vertical integration arrangements will be determined by their directors and managers and by the active participation of their members.

VIII

IMPLICATIONS FOR POLICIES

The five reports from individual member countries will contain detailed descriptions of what has occurred, and is now occurring, in the field of vertical integration in agriculture. After reading these reports the view should be confirmed that the organised co-ordination of agricultural production with its market outlets, the process that vertical integration is designed to promote, is being extended and is likely to be even more significant in the future. It also seems clear that this co-ordination will primarily be achieved through the use of contracts, for one or more seasons as is most appropriate for the product in question, rather than through ownership vertical integration or joint ventures. Unfortunately, however, it is extremely difficult, if not impossible, to assess on the basis of this evidence, and that from elsewhere, how rapid this development may be in the future. Nor is it possible to give any satisfactory answer, particularly on a Community basis, to questions like "Is vertical integration proceeding at the right speed, in the best possible manner and/to the benefit as much of farmers as of other interests directly concerned, or for that matter of consumers of farm products?"

Questions of this kind are essentially unanswerable lacking definition of what constitutes the "right speed", etc. This would have to take account of such a wide range of factors (in the structure and location of farm production, in the level of technical proficiency of farmers, in their ability to retain profits and propensity to reinvest, in the whole state of the agricultural marketing and food processing industries, etc., etc.) as to almost meaningless It is no doubt this difficulty of arriving at any sensible view regarding the right speed and direction of vertical integration in agriculture that has been the cause of the absence of formulation of comprehensive policies in member countries specifically directed towards this subject.

In several respects legislation in member countries affects vertical integration; for example, taxation applied to co-operatives, the provision of financial and other aids to farmers, producers' organisations and the food industry, and legislation related to restrictive practices. Likewise in countries outside the EEC there is usually a body of legislation which affects the development of vertical integration in agriculture.[1] In some EEC countries government action has gone somewhat further and become more directly related to vertical integration, for instance the German Marktstrukturgesetz and the attempts in France to regulate the form of contracts used in agriculture. But in no member country is it possible to point to legislation which deals at all comprehensively with this subject. The point is well illustrated by the situation in Britain, where, as stated earlier, the Committee of Inquiry on Contract Farming issued its finding and recommendations about a year ago, but the government has as yet taken no steps to act on the Report.

If the British government has shown uncertainty over what intervention, if any, is required even though it has the advantage of a special Report, so much greater must

1. Legislation in the United States related to vertical integration in agriculture is described in "Profitable partnerships: industry and farmer co-ops", Ray A. Goldberg, Harvard Business Review, March-April 1972, p.108-121.

inevitably be the uncertainty regarding action on a Community basis. Much more needs to be known, not least about farmers' attitudes and aspirations on the subject. Undoubtedly the reports from the member countries will throw some light on it, and in some cases perhaps indicate what courses of action are to be preferred. But the authors would certainly admit that their work is largely introductory. There is a great deal more to be learnt before one could confidently recommend any meaningful intervention at Community level.

The tone of this study is in general sympathetic to the development of producers' organisations and to the extension of their activity in vertical integration. But the solution to problems in this field is not seen as lying in a full-scale backing of co-operative organisations simply to achieve this objective. A FAO consultant,[1.] writing in 1966, commented like this: "In the last analysis the problems of vertical integration cannot be reduced to an argument between the virtues of co-operation and the evils of monopolistic society. It is more a question of which form, or combination of forms, give the best prospect for the economic development of the agricultural industry and the social well-being of its workers. It is more than possible that there is a place for all forms of integration depending to a large extent on the commodity, region, farm type, farmers' attitudes and the existing agrarian structure". This statement still retains its validity and it could be added that there are other interests to be taken account of apart from farmers.

1. Mr. John Higgs in "Structural Reaction to Vertical Integration", FAO ECA Working Party on Agrarian Structure, September, 1966.

Policymakers with responsibilities towards agriculture are always under pressure from some source to intervene - through regulations, capital grants, cheap credit, etc. And it is highly tempting to accede. After all there are already so many distortions to competition in agriculture, it can be argued that one more could hardly do much harm. Therefore, the argument might continue, why not issue some regulations concerned with vertical integration, grant special subsidies to those who make contracts, and extend financial assistance to projects which constitute joint ventures between producers' organisations and private industry. Thus would a process be accelerated, which all agree has a valuable role to perform, and all interested parties, including consumers, would benefit.

The argument appears to be attractive, but it should be resisted, at least in the present state of knowledge on this subject, and most probably even if much more was known about it. There is a good case for fostering the development of producers' organisations, as is already a firm article of Community policy, and aid should certainly be confined to those organisations which can count on a disciplined membership. This is likely to have an indirect effect on producers' participation in vertical integration. But organisations should not be forced,or bribed by grants, to enter into contracts for the disposal of their members' produce, or hustled into participation in joint ventures through the carrot of special inducements. The right policy is to assist the developments of well-based producers' organisations, including taking account of their capital problems, but to avoid trying to tell them how to run their businesses.

There remain some unobjectionable courses of action which could have some indirect but still important influence on vertical integration in agriculture. More needs to be known about the workings of agricultural markets and the demands for farm products, which in some cases still suffer from obscurity. More work could well be done to improve transparency, and to disseminate information on marketing in an intelligible form. The management of co-operatives calls for special skills. Assistance in management training is anyway valuable, and it would have the incidental effect of improving the possibility of effectual action in vertical integration by producers' organisations. The careful scrutiny of projects prior to their implementation needs to be encouraged, whether they consist in proposals by co-operatives to integrate forwards or constitute studies of possible joint ventures between producers' organisations and private companies.

SUMMARY

(Chapter I) 1. Agriculture is one among many industries affected by vertical integration. Some of the economic objectives which may be served by integration, notably securing sources of supply and marketing outlets, apply generally. Many of the problems raised by vertical integration are common to all industries.

2. The main economic benefits to be expected from vertical integration are lower operating and selling costs, reduction in market risks, rapid exchange of technical and market information, and optimal use of managerial resources.

3. Many of the characteristics peculiar to agriculture are relevant to vertical integration. These include difficulties in developing horizontal integration, in promoting brand identification, and in disseminating information. Agriculture also differs from most other industries in the importance of land as a factor of production, and in the comparatively recent development of large scale marketing of graded produce and of technical sophistication in production. The social situation of agriculture is also relevant to vertical integration.

(Chapter II) 4. In most parts of Western Europe it is only during the last hundred years that agriculture has emerged from a relatively primitive state. Subsistence farming contains in a microcosm the basic features of vertical integration. Business methods which are commonly used in other industries have only recently been applied to agriculture.

5. Purchased farm inputs have become increasingly significant to agriculture, as have the relationships of their manufacturers to farmer customers. Animal feed manufacturers, at one time important initiators of vertical integration, are unlikely to play such a critical role in the future, but supplies of feed will remain an important link in many contractual schemes.

6. As specialisation and intensification of production have developed, farmers have become increasingly conscious of markets for their produce. The possibility of closer quality control has resulted from technical advances on a broad front, thus permitting farmers, either individually or in groups, to become more effective partners in contracts with processors.

7. Intensification has been made possible through a higher level of investment per farm, notably in land improvements,

livestock and buildings. The need to earn an adequate return on capital, particularly to service debt, is an important inducement to farmers to contract both backwards on requirements and forwards on farm produce.

8. The food processing industries, influenced by the demands of food retailers, require regular supplies of graded produce, preferably at known prices fixed in advance. To satisfy these requirements buyers of a wide range of agricultural products are interested in contracting for their supplies.

(Chapter III) 9. Regardless of the possibility of increased bargaining strength through co-operative marketing, most farmers are likely to benefit from group activity. Few farmers have time or talents to follow market developments closely.

10. For farmers the basic purpose of contracting is to obtain higher and more stable net incomes over a period. Contracting can assist towards this objective through lower input costs, including credit, improved production practices and increased average market realisations. The last is the least certain of the benefits of contracting.

11. Both parties to contracts can benefit from greater knowledge of the other's business and its problems. The motives

which draw together the contracting parties are very similar, the interest of both sides increasing if the product in question requires large capital investments, is specialised (few producers and few outlets), and is costly to transport and store.

(Chapter IV) 12. The effect on farmers of ownership vertical integration, a process currently of limited importance in most EEC member countries, is clearly different from that of contracting, though the latter can also lead to a substantial loss of independence among farmers. Normally contracts run for a comparatively short term, at the end of which they may be renegotiated.

13. Ownership vertical integration may result in economies not fully available in contract schemes especially if the whole scheme, including market outlets, is carefully planned from the outset. Processors can be drawn into ownership integration by the need to create supplies for their plants, and producers by the need to gain outlets for products on a more secure and longer term basis than might be obtainable through contracts.

14. Processors (or even retailers) may integrate backwards into agriculture through ownership of production, but the reasons for so doing are rarely compelling. This development is

unlikely to be extended, notably because most firms prefer to avoid capital expenditure on investment in their suppliers.

15. Ownership integration forwards by producers' organisations may on occasions be justifiable. But such cases are likely to be confined to entry into industries buying farm produce characterised by ologopsony, and industries in which continuing high margins can be expected despite the entry of one or more newcomers. The shortage of experienced management available in co-operatives to run owned integrated businesses, must provide some inhibition to this development.

(Chapter V) 16. Industrial companies sometimes form associations, with or without separate corporate identity, to pursue projects in which they are mutually interested. Lack of total identity of interest often gives rise to difficulties in their operation. These joint ventures are usually of a horizontal rather than a vertical nature.

17. In agriculture joint ventures are still uncommon, but there are a number of examples of them in vertical integration. They usually arise when a function (for example, grading and storing facilities, a slaughterhouse or a packing station)

is jointly financed and controlled by interests mutually concerned in its development, and located on either side of it in the agricultural marketing chain.

18. Joint ventures may create a closer relationship between producers' organisations and the food industries than normally exists through contracting. Greater security of outlet and supply should therefore be achieved. Other potential advantages include a more effective flow of technical and market information to agriculture. Through joint ownership the financing of the function may be facilitated, and capital and credit from outside sources, including aids from the State, may be more readily obtainable.

(Chapter VI) 19. In the new EEC member countries vertical integration is most prevalent in Denmark, where the process is very largely controlled by the co-operatives. Few developments in this field have yet occurred in Ireland. Contracts are used fairly extensively for some products in British agriculture; ownership vertical integration is prevalent in the poultry industry and examples can be found in other activities, notably pig production.

20. The detailed studies on vertical integration in the founder member countries of the Community will show that

integration arrangements are most common in the broiler industry. A significant proportion of the production of both eggs and pigmeat is affected by integration. A number of the more specialised products, including quality grains, some fruits and vegetables and veal calves are also important subjects of vertical integration.

21. Causes of variations in the extent of the penetration of vertical integration between regions of the Community include the differing levels of technical competence in agriculture, differences in the structure of food retailing and in the demands of the food processing industries, and the comparative significance of agricultural products particularly suitable to integration arrangements in relation to total agricultural production. At least equally important are differences in the organisation and competence of producers' organisations in the Community.

(Chapter VII) 22. The requirements of modern large-scale marketing create problems for co-operatives in retaining effective contacts with their members and avoiding a sense of isolation from decisions related to the marketing of their products. In their promotion of vertical integration it is essential that producers' organisations should manifestly operate in the general interests of their members. On the other hand they cannot be expected to serve equally the interests of each individual member since not all farmers will be able to adapt their production to market requirements.

23. Opportunities exist for co-operatives in the EEC to introduce greater income security for their members through promoting contract production, organising vertical integration under their ownership, and participating in joint ventures. These developments may yield benefits to producers through higher market realisations, but for the main agricultural products stability of income is likely to be a more realisable objective.

24. For some farm products it may be impractical to attempt to obtain Community-wide horizontal marketing strength through channelling produce through a small number of producer-controlled bottlenecks. In such cases countervailing power may best be achieved through the development of bargaining associations comparable to those established in the United States.

(Chapter VIII) 25. At present legislation in the EEC member countries related to vertical integration in agriculture tends to be indirect in its effects rather than being specifically concerned with this subject. In view of the large amount of uncertainty that exists on this subject it is understandable that governments have been reluctant to formulate comprehensive policies.

26. Financial assistance from Community or national funds should normally be confined to producers' organisations which can count on a disciplined membership. The policy objective should be to build up properly based organisations with adequate access to capital, but to avoid putting them into a commercial strait-jacket by imposing special limitations on their freedom of action.

27. Otherwise aids for the improvement of agricultural marketing through contracting and the formation of joint ventures should be concentrated on subsidisation of (i) studies designed to improve market transparency, (ii) management training, (iii) detailed examination of projects in this field prior to their implementation. Aids of this kind could be expected to yield indirect benefits to the sound development of vertical integration in agriculture.

Identification of Selected Agricultural Products According to their Suitability for Contract Production

Animal Products

Suitability Criteria	Eggs	Piglets	Broilers	Feeder Pigs	Store Cattle
1. Natural production risks	low (-)	high (+)	low (-)	low (-)	medium
2. Capital and labour intensity of agricultural production process	high (+)	high (+)	high (+)	high (+)	medium
3. Storability	medium	medium	low (+)	low (+)	medium
4. Transportability	medium	medium	low (+)	low (+)	low (+)
5. Standardizability	high (-)	high (-)	medium	medium	medium
6. Maturity for Consumption	high (-)	high (-)	low (+)	low (+)	low (+)
7. No. of potential Uses	high (-)	medium	low (+)	medium	low (+)
8. Price fluctuations	severe (+)	severe (+)	slight (-)	slight (-)	slight (-)
9. Capital and labour intensity of user plant	low (-)	high (+)	high (+)	low (-)	low (-)
10. Competitiveness of supplies from abroad	high (+)	low (-)	high (+)	low (-)	low (-)
Suitability for production under contract	medium (-2)	medium (+1)	high (+5)	medium (±0)	medium (±0)

For Notes, see over.

Plant Products

Suitability Criteria	Fresh Vegetables	Industrial Vegetables	Hops	Eating Potatoes	Cereals
1. Natural production risks	high (+)	high (+)	high (+)	medium	low (-)
2. Capital and labour intensity of agricultural production process	high (+)	high (+)	high (+)	medium	low (-)
3. Storability	low (+)	low (+)	high (-)	high (-)	high (-)
4. Transportability	medium	low (+)	high (-)	medium	high (-)
5. Standardizability	medium	medium	high (-)	high (-)	high (-)
6. Maturity for Consumption	high (-)	low (+)	low (+)	high (-)	medium
7. No. of potential Uses	medium	low (+)	low (+)	high (-)	medium
8. Price fluctuations	severe (+)	severe (+)	severe (+)	severe (+)	slight (-)
9. Capital and labour Intensity of user plant	low (-)	high (+)	high (+)	low (-)	low (-)
10. Competitiveness of supplies from abroad	medium	medium	medium	low (-)	high (+)
Suitability for production under contract	medium (+2)	high (+8)	high (+3)	low (-5)	low (-6)

NOTES:

a) Influence "pro" = (+); influence "contra" = (-); "medium" influence: no rating given.

b) If the sum of suitability criteria is positive, the product is suitable for production under contract; the higher the better. The contrary applies if the sum is negative. As, however, the rating given to each criterion could only follow the comparatively rough procedure of assignment to three classes of value, and furthermore, the criteria do not carry the same weight compared with one another, it is not possible to delimit the individual products unambiguously from one another simply according to the total ratings assigned to each. Quantification of this kind merely allows them to be grouped in one of three categories (high, medium, low) of suitability for production under contract.

Source: M.VonOppen op.cit. p. 1

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