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Problems in finance of intensification and amalgamation of farm businesses in Western Europe

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Introduction

Although it is the intention in this paper to discuss some of the financial problems of intensification and amalgamation in Western European agriculture from the viewpoint of the individual farm business, certain major factors influencing the general business environment must be borne in mind. These factors are as follows:-

1. Actual or incipient surpluses of major agricultural products.
2. A poor farm structure with a preponderance of small family farms.
3. Further decreases in the agricultural labour force are likely to come more from farmers and family labour than from hired paid workers leaving the industry.
4. Land prices are likely to remain relatively high.
5. Interest rates are likely to remain relatively high.

These factors are not listed in any order of priority, but jointly and severally they have an important bearing upon the problem and solution of the capital accumulation needed to advance the technology of Western European agriculture and the welfare of those who live by it.

Increased output per farm unit is needed if the economies of scale inherent in the intensification technologies are to be gained. But if total supply can be increased only with disproportionate reductions in price (or untenable price support costs) then the advantages of the cost reductions and higher profits will be lost. The cash flow necessary for financing the intensification will not be forthcoming; nor will the prospect of profit or of enhanced income be there to persuade the farmer to invest.

If those moving out are more likely to be farmers and members of the farm family who have been living on a relatively subsistence economy, then the increased flow generated by their departure is likely to be very small. It could be that those who leave the farm will increase the farm family's cash flow by the subventions they send home. But such funds are more likely to be spent on current living rather than investment. If the whole family leaves, then the amalgamation of the farm with another will require funds to be made available. The stark abandonment of the farm might solve the financial, but not the social problem.

The price of land is likely to remain high, particularly in relation to the profitability of its agricultural use. With increasing population and the growing affluence of the non-agricultural sectors of the economy, pressure of demand for the limited supply of land will be maintained. And land still keeps its traditional attraction as a hedge against inflation. These high prices will make the financing of land amalgamations more arduous, just as will the maintenance of high interest rates through a high overall demand for capital to exploit the technological developments available to all sectors.

The financing of any development is concerned basically with the sources and applications of funds, and with the appropriate relationships between those two elements. It must also deal with the problems of risk and of equity, and with the generation of cash flows sufficient for the servicing and repayment of borrowed funds. This scheme applies in problems of intensification in which is implied the substitution of one resource for another and a change in the proportionate use of resources. It applies also to problems of amalgamation which are concerned with transference of ownership and control of resources (particularly of land) rather than their combination and transformation. Traditionally, capital formation in the family business has been a process of slow accretion through the allocation of money and time. Money has been diverted from personal consumption, time from personal leisure. This slow accretion has been aided in agriculture by the biological and seasonal nature of many of its production processes. Livestock and trees increase in number or in yield naturally with the passage of time. At relatively low levels of technology, the fixed equipment in farming can be supplied in large part from indigenous materials, such as timber, and the off-season labour of the farm family. These have provided the buildings, fences, water supplies, land drainage and land clearance.

Compare this with the current situation, where, in an attempt to improve or maintain his income relative to that of other sectors of the economy, the farmer is forced to adopt technical innovations quickly. There is no time for the slow accretion processes. He has to buy time as embodied in the industrial inputs now forming the major part of his new technology. The farmer can no longer wait for the slow build-up of herd numbers, but must fill his new dairy buildings (probably prefabricated industrial units) as soon as possible with purchased cows, if he is to generate the required cash flow quickly enough to survive financially.

A further point in the slow accretion process is that it gives the farmer a better chance to obtain and retain the ownership of these new capital assets. The peasant/proprietor is the epitome of the owner/manager who still retains the privilege of working as long as he likes for as little as he likes. The philosophy which states that it is the magic of property which turns sand into gold is still strong among farmers. It no longer pertains in the non-agricultural sectors of the economy whose relative income is growing faster than agriculture's, and where ownership and management are separated. It is the command and control of capital assets rather than their ownership which are important.

Technological developments are of two broad kinds. Firstly, those whose primary outcome is to increase output; secondly those concerned fundamentally with cost reduction through resource substitution. The first kind of development is typified by the application of chemicals and genetics to crops and livestock. For the farmer the investment can be small, the return rapid and marginally large. More fertiliser combined with high yielding varieties seeds can give dramatic increases in production. With livestock, the general tendency is to increase stocking rates, thus saving land. In the early stages of the development there are few economies of scale to be had. The requirement is short-term credit.

The second type of development is typified by the substitution of plant and machinery for labour. The investment is usually larger, and more lumpy, the pay-off is longer delayed, less easy to assess accurately and hence more risky. In such investments, the pay-off comes more from cost-reduction than from increased output, although to gain the one often involves the obtaining of the other. This is usually done by increasing the area of operation, which in turn requires the acquisition of control over more land. The need is for long-term credit.

In the developed countries throughout the world it is only exceptionally that farm businesses have been able to finance technological innovation or the purchase of additional land entirely from profits. Traditionally there has always been a flow of capital into agriculture from outside sources. But there has also been a flow of funds out of agriculture into the rest of the economy. It has, for instance, been stated that British Agriculture held a net positive credit balance with British banks in the mid 1950s. Since then, however, the capital and credit demands for intensification, innovation and change of land-ownership, have turned this into a debit balance.

There is a further development likely to cause an increased flow of funds out of farming, which must be counter-balanced somehow if re-equipping and growth of business is to take place. As more members of the family leave from the home-farm, so a higher proportion of any inheritance will be taken out of farming, either in the form of a capital sum or as a continuing cash payment. Either move will reduce the cash flow available for financing the remnant business. To this must be added the demands of taxation.

The introduction of various forms of wealth tax and capital gains tax are particularly insidious in a context of inflation. The increase in the money value of the asset may be quite unrelated to its earning capacity out of which such taxes could be paid. Such taxation can give an added significance to increasing land values in the problems of farm finance.

Even in the United Kingdom where farm size structure is considered to be relatively good, and the possibility of self-financing for capital accumulation should be possible, recent fiscal changes may have put this structure in jeopardy. The opinion has been expressed that, under present taxation, the medium sized family farm cannot last as an independent unit for more than two further generations.

These new fiscal policies of 1965 when Capital Gains Tax was introduced, are likely to cause increased difficulties in this matter. Estate Duty has always been an 'optional and avoidable' tax. Capital Gains Tax is neither optional nor avoidable. It must be paid in cash at the time of disposal of an asset–and disposal may be gift, sale or inheritance. Land prices have not yet risen sufficiently above their 1965 level, nor have sufficient disposals taken place to make the crippling effect upon family farm financing properly appreciated. Even if various financial measures such as the use of life and endowment insurance are used to mitigate this onslaught, the payment of the annual premiums reduces the cash flow for other kinds of investment within the business.

If, the financing of technological developments from within the farm business is too slow and inadequate for the current urgency of the situation, then one is forced to consider outside sources of finance. Problems of their appropriateness in the light of the type of asset acquired, the legal restrictions and taxation imposts placed upon their ownership and so on arise. In some countries the amount of land which can be owned or farmed by one person is restricted, the minimum period for repayment of a loan is stipulated. The mere presence of inflation, let alone profits, brings repercussions upon the need for cash from within the business to pay wealth tax or capital gains tax. But, first and foremost, the use of outside sources of finance brings in the discipline of the money market both in terms of price and the need to repay. Every investor wants both his money back and something else for the facility provided. And these are provided by the cash flow.

As previously stated, the farmer is being forced to buy time; and the time value of money is a fundamental factor in any investment appraisal. It has particular importance for investments in farming; firstly because the production cycle is often lengthy, and secondly because the chance to modify the new technique in the light of the inevitable mistakes in the running-in period is delayed. The considerable significance of this may be seen from the following example.

TABLE 1 *Influence of a Delay in Cash Flow upon Subsequent Amortisation Payments*

Initial investment		100 units of account	
Project life		10 years	
Discount Rate		15 per cent.	
Circumstance		Annual cash flow to amortise the initial investment (units of account)	Increase in annual cash flow for remainder of the project life
100 per cent performance from the start		20	-
Cash flow starts in Year 2		25	25 per cent
Cash flow starts in Year 3		30	50 per cent
Cash flow			
Year 1	5		
Year 2	10	-	Years 3 - 10
Year 3 - 10	26		30 per cent.

From the aspect of farming expertise, it must be remembered that any proportionate increase in net cash flow is an indication of the increase in efficiency. And an increase of 25 per cent in efficiency is a very considerable managerial and technical achievement.

This simple illustration highlights the importance of the economies of scale to be obtained from the dynamic nature of the innovation process. The dynamic scale economies stem from the fact that the learning of a new production technique not only takes effort but also time. The farmer (or any business) who completes the learning process more rapidly gains an advantage, since further innovations embodying greater economic efficiency are bound to arise sooner or later and make the original process economically obsolete. It also produces the vital earliness in the net cash flow.

The rapid and successful learning of the new technique is handicapped by the seasonal nature of much agricultural production, circumscribed as it is by a cycle of once a year. Mistakes and miscalculations may have to wait a twelvemonth period before they can be rectified in the next cycle. In practice, it often takes three years before the herd of a new milk producer reaches average levels of performance. The management problems of setting up a new herd–disease risks through introducing cattle from several different sources, synchronisation of buying cattle, erecting buildings and conserving the first winter's feed–are considerable. It is a common but costly mistake to underestimate the problems and costs of running-in a new technical process.

These dynamic scale economies are doubly important if the innovation is taking place in a context of falling prices or decreasing profit margins. Farmers in many Western European countries have been undergoing a price/cost squeeze during recent years, which has made it more difficult for them to fund their investments and obtain the desired pay-off from their innovations. The movement of prices and costs of various major products and inputs in British agriculture can be seen from the following table.

TABLE 2 *Movement of Prices and Costs – U.K. Agriculture 1960–1967*

	1960	1967	Annual Compound Rate
Agricultural inputs prices			
Labour	100	141	+ 5.0 per cent
Feedingstuffs	100	115	+ 2.0
Fertilisers	100	104	+ 0.6
Machinery and power	100	115	+ 2.0
Rent	100	160	+ 7.0
Land (vacant possession)	100	196	+ 10.0
Farm product prices			
All products	100	108	+ 1.0 per cent
Wheat	100	105	+ 0.75
Milk	100	110	+ 1.5
Potatoes	100	115	+ 2.0
Sugar Beet	100	104	+ 0.6
Fatstock	100	112	+ 1.75

Source: Based on Annual Abstract of Statistics and MAFF statistics.

With a deterioration of about 1 per cent per annum in the relationship between prices and costs for milk and wheat, there is a decrease of about 4 per cent in the net cash flow. Taking an investment of £100 with a 10 year project life and a discount rate of 15 per cent, this deterioration in cash flow will require an increase of about 50 per cent in the efficiency obtained in the enterprise, compared with what would be required had prices and costs remained constant over the project life.

Amalgamation and integration

If control over a larger spatial area is necessary to obtain economies of scale, this can be gained in two ways. Firstly, by amalg ation through which the identity of the separate businesses is lost. Secondly, by horizontal integration, in which only parts of separate businesses are brought together, but the remaining parts keep their identity and separate ownership.

Both amalgamation and integration have been slow in agriculture. The reasons, psychological, social and financial, are well-known. But the present urgency to find ways of improving farm incomes in Western Europe forces us to consider the problem yet again.

Farm amalgamation has usually been thought of as the absorption of one business by another through the purchase of the land. It is the purchase of the land at prices whose level is being strongly influenced by non-agricultural factors which keeps down the rate of progress in this movement. It must be remembered, however, that farming itself generates its own pressures upon land values. Owing to occupational immobility, farmers who have been bought out handsomely by other sectors of the affluent society, are strong and rich bidders for land which they must have to re-enter farming. Nor must it be forgotten that the initiator of an amalgamation will probably be operating at above average levels of profitability and so is prepared to pay a price which reflects this. Added to this is the increase in profitability likely to accrue to him if he obtains the economies of scale in his total production.

Not only is the movement towards amalgamation slow, but it can be haphazard and dependent upon the chance coincidence of availability of land and of liquid assets. Hence the intervention of government agencies in several Western European countries to regularise and subsidise such adjustments to farm structure.

The basic problem of acquiring land is not that of profitability, particularly when capital appreciation is taken into account. It is the liquidity and cash flow which are central to the problem for the individual farmer. For a large investor of whose total portfolio agricultural land forms only a part, this need for liquid annual income is not necessarily vital. If his land holding is sufficiently large and dispersed, he can obtain income from the periodic sale of certain parcels of land and cash in on the capital appreciation. Certain large institutional investors in the United Kingdom have found over the past thirty years, that their investment in agricultural land has been more profitable than their holding of industrial equity shares. The large investor prefers his land to be in large blocks for ease and economy of administration. But the problem to be faced is one of the amalgamation of very many, very small parcels of land.

Thus one is brought back inevitably to a consideration of tenancy systems whereby the two basic types of agricultural capital are separated in ownership. One is led to reconsider the appropriate ownership of land—private or public, individual or institution.

The burden of financing an amalgamation by purchase is much influenced by the relative sizes of the two pieces and by the debt already encumbering the original farm business. A small addition to a farm unencumbered by debt is easily accommodated. But if the additional area is a good proportion of the original, the financial burden becomes substantial. This problem is arising in parts of Europe where the original plan of breaking up large estates into small independent farms of 10 to 20 acres is now being revised (within twenty years) to a plan for amalgamating these small farms. Nor is this amalgamation stopping at joining two 10 acre farms together; it is now necessary to join a third unit to the two already amalgamated. Add to this, the fact that by amalgamation, the farms have been lifted out of the size range eligible for capital grants and subsidised credit. The policies become self-defeating.

When the increase in the costs of production subsequent to the amalgamation are strictly those of 'stock' resources, then the marginal returns can be attractively high. If, however, 'flow' resources must be purchased in addition to the land, then the marginal returns can be a disappointing source of funds. Experience in the United Kingdom has shown that an increase in farm acreage has seldom been accomplished with addition to stock resource costs alone. Often, more plant and equipment and more highly paid skilled labour are also required. It was pointed out previously that the initiator of an amalgamation may already be operating at above average levels of profitability and of farm size. He will probably be liable to pay tax on his additional profits at marginal rates of taxation. This incidence of taxations will affect the price he can afford to pay for the additional land and any funding of borrowings since the repayment of the principal must come from income after tax. The influence of these factors upon the ability to finance land purchase for amalgamation is shown in the following figures drawn from British experience.

TABLE 3 *Marginal Cash Flows and Amortisation Charges with Land Acquisition*

	Before Tax	After Tax 30%	Annual amortisation charge for £250 10 per cent interest 20 year term.	
Incurring variable resource costs only	A	B	A	B
Dairy cows	£55	£39	£29	£24 – £32
Barley	30	21	29	24 – 32
Incurring costs of flow resources as well. Specialised buildings, machinery, skilled labour				
Dairy cows	£30	£21	£29	£24 – £32
Barley	20	14	29	24 – 32

If the achieving of economies of scale through land purchases is too slow or too expensive, another way must be used. Increasing the scale of technical operation for a particular product is possible by means of integration through some form of co-operation. Such integration of production need not lead to larger or fewer business units initially. Such a development may retard the movement of farmers out of the industry, but probably only temporarily. And this slower movement will ease the social problems created by such events. The retention of the identity of the individual businesses may make this form of integration more acceptable to all parties.

Integration is based upon informal arrangements. Many are family agreements, some are formal partnerships, and others some form of syndication or co-operative organisation. The more formal arrangements can usually attract more outside capital because they give rise to a larger base for borrowing and can often reduce the risks and health hazards to which the one-man farm is liable. There is, of course, the well-known disadvantage of the increasing difficulty of obtaining agreement in decision as numbers of participants grow.

From British experience, integration has been more rapidly accepted in crop and vegetable production than in livestock production. The integration has often been linked with the marketing process, and the need to produce to a market specification has often been a major cause of adopting new machine and new methods. In livestock production, integration has usually taken the form of an improved breeding policy, again with a view to meeting a market specification. There have been relatively few instances of the joint-ownership of animals.

Integration can introduce co-operation into a farm business and so make available the various preferential financial measures available to co-operative organisations in most Western European countries. These measures can take the form of cheap credit, preferential tax measures, and capital grants, each providing finance in one way or another for the intensification of agricultural production. Admittedly when farm businesses become large and wish to expand rapidly, then some of the financial aspects of co-operation become restrictive compared with the more usual forms of business incorporation. The inability to raise equity capital is a major instance of such a restriction. But for the size of business normally operating in farming, the preferences to be obtained through co-operation can be helpful.

A recent survey[1] in Britain concerning machinery syndicates elicited the fact that the borrowing of money is not a major problem restricting the growth of these syndicates. Other factors such as the loss of independence (a major reason expressed by the large farmers in the survey), and inability to find suitable partners (a major reason for the small farmers) were deemed more important. It is also significant that 41 per cent of the farmers in the survey stated that they were not convinced that communal ownership and use of machinery produced any significant economic benefit. The smaller farmers also stated that the capital contribution needed for the purchase of a new

1 Robinson, G. D. Report on Machinery Syndicates 1968. Agricultural Co-operative Association. London 1968.

machine might be greater than what they are accustomed to make for individually owned second-hand machines. It is interesting to note that the Central Council for Agricultural and Horticultural Co-operation in the United Kingdom has now made it possible to give grants upon the capital value of existing assets (e.g. machinery and plant as well as livestock already owned by participants) which are transferred from individual to group ownership—a further extension of the financial advantages to be obtained through formal integration.

Summary

The financial problems of intensification and amalgamation are strongly influenced by a single psychological state of mind—a desire to be independent. This manifests itself in an unwillingness to co-operate with others and so share the burden of investment as well as decision-making. It also manifests itself in a desire to own the investment rather than merely control it. This is the traditional peasant attitude born of aversion to risk and the outside control which a creditor will always exercise.

The financial problems of amalgamation are governed by the paradox of high prices by low profitability of land in agricultural use. The economies of scale in terms of both time and technology are vital in the financing of intensification in agricultural production.

The persistence of an excess of products and of producers make the solution a social and political one to which finance must be subservient.

M. B. Butterwick, *U.K.*

Mr Reid has drawn attention to some of the new technological developments in agriculture in Western Europe. The effects of this new technology on the economic scale of enterprise in farming are moving in advance of the traditional means of structural adjustment through amalgamations of agricultural holdings. This is the case throughout Western Europe. Government intervention in structural reform in Western Europe, in order to help to ease this problem, has generally taken two forms: land consolidation in which much has been done, notably in Germany, and assistance to amalgamations of holdings as farmers leave agriculture. The latter has made fairly slow progress. Mr Reid has rightly stressed its capital cost. In addition to this, I would like to suggest that land amalgamations under one ownership may well run counter to social and political views on the acceptable extent of capital holding by one individual. For this and other reasons, I believe that the time has come to shift the emphasis of structural reform from land itself to the farm as a business. It is the size of the farm enterprise that is important, rather than the land holding, perhaps several in number, of which the farm enterprise is composed. Let us leave people to own land if they want to – for investment, for social or other reasons, and concentrate on farm businesses rather than land holdings.

Special credit arrangements to assist with land amalgamations through credit or other means possess several handicaps. What is needed are measures to help farm business amalgamations while the land remains in the existing ownership. Tenancy is an obvious method of achieving this, and its advantages and disadvantages are fairly well known. But we want to look more closely at the possibilities of farming partnerships such as the Groupe Agricole Exploitation in France; these are making slow but positive progress. To get farmers to work together is, we all know, very difficult. It should become an important part of farmers' education. The emphasis in the past here has been on technological skills in farming. It should be, to an increasing extent, on business ability, and an important part of this business ability is knowing how to assess the most economical scale of enterprise, and in getting other farmers to work together to achieve this scale of enterprise. In Western Europe we have been far too ready to accept that farmers must be independent, that they have the right to this independence, which other workers do not have. In this, of course, we differ greatly from most of the socialist countries. The farming unit is not the only way of conducting a farm business, nor is it necessarily the best. The time has come, I believe, to show farmers the advantages of small scale co-operation in production. Such a policy would, I believe, receive support from younger and more forward-looking farmers.

E. Gorzelak, *Poland*

Mr Reid gave us, in his interesting paper, a picture of the very complicated system of financing agriculture in Western Europe. This creates a good platform for the presentation of methods of financing of socialist mechanization under the conditions of individual peasant farming displays of up to now in Poland. The Polish conception of the agriculture development farm is based on the system of obligatory deliveries of agricultural products to a state agency. Peasants receive only part of the price for delivered products; the second part, which in the initial period was taken over by the state as the peasants contribution to the material social accumulation, is now transferred to a self-governing organization of farmers, and creates 'agricultural development farms'. This is the main source of expenditure for mechanization; – a group socialist ownership is formulated, and socialist accumulation is created under conditions of private peasant agriculture. In this way, individual private farms finance the common purchase of tractors and accompanying machinery for production servicing of peasant farms.

G. Barbero, *Italy*

Mr Reid in his paper has highlighted a number of important problems and although his presentation bears primarily on British experience I would certainly agree that the situation depicted is valid, by and large, for most of the Western industrialised countries. I have some difficulties in grasping the full meaning of some of his tables, but I hope to have the opportunity of clearing my doubts later on with his kind assistance. I also wish Mr Reid had been more discriminating when speaking of the problems of family farms for he conveys the impression of an homogeneous group while we very well know that in many instances this is not so, or when referring to the price-cost squeeze of the recent period which does not apply to all countries nor to all types of farming. There is, however, one particular point that puzzels me, it is the relation between land prices and fiscal measures. Farm prices are high and are likely to remain so, states Mr Reid. I agree and my guess would be that in the EEC countries if present circumstances prevail in the future, land prices will continue to increase at rates well above the current rate of inflation. Some of the factors explaining the rising trend of land prices are listed by Mr Reid. He also states that 'certain large institutional investors in the United Kingdom have found over the past thirty years that their investment in agricultural land has been more profitable than their holding of industrial equity shares'. On the face of this and of the problem which farmers encounter in financing amalgamation of farm businesses I would say that the capital gains tax introduced in the United Kingdom in 1965 is a good fiscal measure; if effectively carried out such a measure, apart from other possible reasons which justify it, should have the effect at least of slowing down the trend in land prices or of levelling it off for some time. On the contrary, Mr Reid expresses the fear that the tax will only aggravate the problem of farm finance because of the tax, when due, must be paid out of annual income. He seems to imply a sort of additive relationships; land prices will continue to increase and on top of that a capital gain tax will have to be paid. I would be grateful for further elaboration on this point.

Sebastiao Goncalves, *Portugal*

I would like to draw attention to one aspect of the paper of Mr Reid. It seems to me very important to note that the present situation of agriculture almost all over the world cannot be solved without a very strong source of public funds, even if they are obtained by the State through loans. The position of agriculture in our days even in developed countries cannot be eased by the normal money market not only because farmers cannot afford to pay the commercial rate of interest, but also because they cannot give guarantees suitable for private lenders, even through the banking. So, I believe, that it is very important to convince all our delegates that the situation of agriculture needs – first, very realistic plans in order to destroy the gap between agriculture and industry and, commerce; second, technical institutes organized to teach farmers the best way of running their farms; furthermore, enough funds to use in long terms credit and a low rate of interest suited to the real productivity of capital on well managed farms.

In fact, we must organize things according to the real situation of economic activity of the majority of people of every country. If this important branch of activity, – agriculture – does not improve quickly, it is not possible to improve the national economy.

H. Breimyer, *U.S.A.*

It seems to me that Mr Reid's proposal involves rather drastic measures of tax concession to finance amalgamation, and the social justification appears to be on grounds primarily of increased efficiency. A few points can be made, some of these partially in disagreement with the overall point of view. I agree with one of the previous commentators that I think we need to distinguish among size categories of farms. If the object is to enlarge the very smallest, obviously inefficient, farms there can be very little challenge to this proposal. If instead it is applied primarily to the farms that are already fairly large then this rather generous tax concession could lead to a more uneven distribution of holdings and of income within agriculture. In the United States, at least, where we are not quite so concerned as we once were with the single goal of efficiency, perhaps, Mr Chairman, a point for discussion should be whether we do not have multiple goals in farm policy. We are not so concerned with the single goal of efficiency; we are now giving more attention to problems of development of the distribution of income. It may be that tax concession policy might be somewhat different from that which has been proposed; lastly, I do think that in the United States we have a common point of view that the resistance of farmers to some kind of inter-farm co-operation is one this is quite important and one that should engage our attention.

E. E. Lipinsky, *Federal German Republic*

I. As regards the financial difficulties discussed by Mr. Reid, the burdens attributable to land purchase by most farms in Western Europe are insignificant compared to those arising from all other necessary investments for the following reasons:

(1) It is true that land prices are relatively high, but the opportunities for land purchase are nevertheless, because of limited supply, relatively small.

(2) The perceptibly rising trend in land prices is regionally differentiated in its magnitude. There are–at least in the Federal German Republic–areas in which land prices have risen only slightly, or not at all. In these cases the land value based on net earning power approaches current market value.

(3) Everywhere, in places where land prices are rising considerably, the financial hardships of buying land are reduced or alleviated through the offer of state aid and the broadening of the credit base because of the increased value of the land assets.

II. However since, basically, the supply of land on the market is quite insufficient to meet the increase in demand, changes in farm structure are mainly accomplished on the basis of tenancy. Most farms, thus, avoid the financial difficulties associated with land purchase. The fixing of tenants investments on rented farms or rented land therefore achieves primary importance, and it is yet to be investigated whether protective legal regulations yet exist anywhere (e.g. in the U.K. which favours tenancy).

K. V. Pikhala, *Finland*

I have just a few remarks on Mr Reid's very interesting paper. I agree very much with him when he states that the amalgamation of small farms requires much capital which is difficult to secure from current earnings, especially when the terms of trade of agriculture have been deteriorating. Therefore from the standpoint of private economy, the amalgamation of farms may be difficult. It is difficult if there are no special subsidies or loans with low rate of interest, and therefore this amalgamation process is, to some extent, retarded. But I cannot see that it is unfortunate from the standpoint of national economy where there are surpluses in agriculture. The surplus problem, in my opinion, is more likely to be aggravated than alleviated by the amalgamation process. When Mr Reid says in the beginning that the farm structure is poor, with a preponderance of small family farms, I do not think that it is so from the standpoint of national economy. The small family farms can be quite effective, and the old techniques can also be used until there is need for more production, and I think that many large farms also in this country do not use the minimum amount of labour, and we will see also that the old techniques are used alongside modern techniques. I do not see anything bad in this. The problem is evidently different in different countries and all we can say is that the need for amalgamation is dependent on the economic development, where harmony should be maintained.

Mr Reid *in reply*

May I first of all thank you for the kind way in which you received my paper. I will do my best to reply to some of the comments made. Mr Butterwick stressed the need for the development of farm partnerships in some form or other, and the desirability of them in relatively small scale efforts on co-operation. With this I must myself concur, and one finds that in Britain anyway, and I gather in other parts of Western Europe, there are very considerable developments going on in both these particular points at the present moment. He says also that one should think in terms of the size of the land holding. I think in my paper I did try to make the point that what really mattered very often was the control of the asset rather than its ownership. If we look in other sectors of the economy we will find that this has taken place – separation of ownership and management is more or less complete, and this separation does not seem to have detracted from the efficiency with which a business is conducted. Taking the point of my colleague from Italy, he asked me to elaborate upon the incidence of capital gains tax upon land prices. Certainly I would agree with him that it would seem logical that capital gains tax would tend to keep the increase in land prices down, but on the other hand it does create the burden that this tax has to be paid in cash, and that it is the finding of this cash to pay the tax which creates considerable problems for a family business, when this tax is levied at such times as on death of the owner or on giving the land away to his son, or disposing of it in any way that he likes. It is, as I say, the finding of the cash to pay the tax which creates a considerable financial burden at some point in time for the family business. Again, I was interested to find that other speakers mentioned the importance of education of farmers, not only as regards methods of production, but also in the ways of farm business. May I say that I heartily agree with the need for this, and again in many countries there are very interesting developments going on in the training of farmers as well as in the training of potential farmers. Professor Breimyer from the United States suggested that what one ought to do is to look at the multiplicity of goals that are likely to be the object of a farmer being in business, and so on. Again, I would agree, and you will find that in the last sentence of my paper I intended to suggest that strict economic efficiency was not going to be the final arbiter in the solution of these problems, but that social objectives would certainly come in very much in this matter. Again, Professor Lipinsky from West Germany also brought up this question of development of tenancy arrangements and said that he felt that the situation in the United Kingdom was perhaps more satisfactory than in Western Germany as regards the relationship between tenants and owners. May I say that in Britain here again there are certain developments taking place. We do not think that our situation is entirely satisfactory, and quite an amount of thought and experimentation is going on in this field. What one has to recognize, of course, is that the laws relating to land are some of the most difficult to change, and that legislators are about as conservative as academics.