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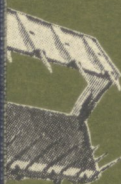
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STP 1993

Alan Harrison and RB Tranter

# The recession and farming: crisis or readjustment?



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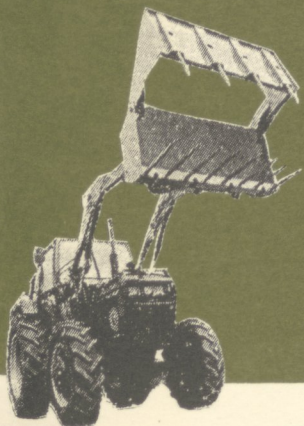
CAS report



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# The recession and farming: crisis or readjustment?

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## Preface

This report chronicles the development of farm incomes during the twenty years since the UK joined the European Community. From historically high levels, incomes followed a falling trend throughout this period with occasional surges in income being rapidly followed by falls to even lower levels. In the somewhat euphoric atmosphere of 1992 and 1993, following the devaluation of the pound in September 1992, it is salutary to be reminded of this history, of the underlying tendencies in the market place which it exemplifies and of the process of adjustment which it has forced upon the industry.

The story is far from one of gloom. Although some heavily indebted farmers have been forced out of business, the industry generally remains in a healthy financial situation. This has been achieved through strenuous efforts to shed costs and control debt. Despite this, farming now requires much more capital per unit of output than in the past. The prosperity of recent years may provide an opportunity for some farmers to reduce indebtedness. For others it may be the means of replacing worn or ageing equipment. The hired labour force has continued to contract. Land prices, which might have fallen to very low levels taking account only of the current income from farming, have been higher than might have been expected. In part this seems to have been due to hope; a belief that land might acquire development value or that in the longer term world population growth would increase the value of farm land. Land prices have also been sustained by policy decisions which tied compensation for lower prices to continued use of the land for farming or set-aside, and, especially in some less-favoured areas, by those policies which reward farmers for farming in what are seen as environmentally approved ways.

In the 'post-GATT' world, agriculture in Europe is likely to face a period of increasing structural change. Those who make policies or plan businesses within such an environment need a good understanding of the capacity of the industry to adjust. By providing an insight into how changes have taken place during the past decade or so, this report contributes to that process.

Reports of this nature draw upon a very large amount of data. That is only available because of the co-operation of many people, some who responded to questions and others who helped to process the available information. The Centre is very grateful for the assistance it has received; particular thanks are due to the hundreds of farmers who completed questionnaires, to officials at the Central Statistical Office and the Ministry of Agriculture, Fisheries and Food and to Bob Arkell, Philip Jones and Rod Vaughan here at Reading. This report is one of a series which the present authors, Alan Harrison and Richard Tranter have prepared on this theme. Mr Harrison is now officially 'retired' but he has continued to play an active role in the completion of this work. The Centre wishes to record its appreciation of his contribution to its work over many years and welcomes the opportunity to publish this latest report.

John S Marsh  
Director.



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# Abbreviations

ABCC	Association of British Chambers of Commerce
AMC	Agricultural Mortgage Corporation
CAS	Centre for Agricultural Strategy
CSO	Central Statistical Office
DOE	Department of the Environment
DTI	Department of Trade and Industry
FI	Farming Income
GDP	Gross Domestic Product
GP	Gross Product
GO	Gross Output
GSS	Government Statistical Service
HMSO	Her Majesty's Stationery Office
ha	Hectare
LIC	Lands Improvement Company
M	Million
MAFF	Ministry of Agriculture, Fisheries and Food
na	not available
SAFE	Sustainable Agriculture, Food and Environment
SASC	Scottish Agricultural Securities Corporation
T	Tenanted
UK	United Kingdom
USA	United States of America
VP	Vacant possession
WO	Welsh Office

# Summary and conclusions

## THE GROWTH OF FINANCIAL PRESSURE ON FARMING (Chapter 1)

Farm incomes in the UK in real terms halved between the early 1970s and early 1980s then almost halved again by the early 1990s.

The main cause of the continuing deterioration in farming incomes is the fall in prices of farm products relative to the prices of factor inputs. Since 1978, product prices have lagged behind current inputs by 20% and behind capital inputs by over 40%.

In the face of such falls in relative prices and in incomes, capital formation has ceased. However, capital stock values have been as yet scarcely affected and are only slightly down from their peak in the period 1978-1985. As a result, the ratio of capital to income has continued its long-term upward trend such that whilst in 1981 £7.50 of net capital stock generated £1 of income, in 1991 the equivalent figure was £11 capital to £1 income.

## FARM BUSINESS FAILURES (Chapter 2)

Although business failures in farming have risen, they have fallen as a proportion of all business failures since 1980. However, suicide rates have been high and the industry has grown in indebtedness. Thus, since 1987, total debt has risen by 20% whilst aggregate income has risen by only 4%, both in current terms. For a significant minority, survival has been at the cost of capital consumption.

Despite the contrast between the industry's falling incomes and its rising debts, farming appears to have remained very credit worthy, especially when compared with other sectors of the economy. Figures of loans charged-off by four of the clearing banks bear this out, for, in only one of the last five years has the amount charged-off exceeded 1% of the net total of the loans to the sector; the equivalent proportions for all sectors were two to three times greater.

### SOME FEATURES OF FINANCIAL ADJUSTMENT PATTERNS (Chapter 3)

Despite such heavy financial pressure, the decline in the number of farmers in England has been less than 1% a year since 1985. In contrast, the decline in numbers of whole-time regular hired workers has been seven times as fast.

There are two reasons for this slow rate of movement of farmers out of the industry. First, most farmers are not heavily indebted, they are not making losses and they are, as a result, still looking to growth as the way ahead - our survey evidence for England suggests that about 60% of farmers are in this category. Second, and in marked contrast, there is a heavily indebted minority who are locked into the industry; either they are finding the cost of moving out unacceptably high or they are finding it impossible to reduce their indebtedness. Our English survey revealed that 17% of farmers experienced recent increases in their overdrafts of a half or even more. Moreover, further survey evidence from Central Southern England and the South West Midlands shows that of those who were under severe financial pressure, more have kept going by further adding to their debts rather than by reducing them.

### FINANCIAL ADJUSTMENT AND LAND PRICES (Chapter 4)

Movements in both land prices and rents stand in marked contrast to changes in the level of farm incomes in the last 15 years. For example, whilst farmland prices in England have fallen in real terms by over 20% and the real level of rents by 10% since the late 1970s, real farm incomes have halved in this period.

Thus, it seems that other, probably political, factors are affecting land prices more than purely farm income levels are and that this will continue. The fact that prices have not been boosted by the active involvement of the financial institutions in the market since 1986 and that farmers have recently been offering for sale both fewer parcels and smaller areas of farmland, backs up this assertion.

Society, through policy-makers at both the national and local levels, is currently adopting a dual approach to non-agricultural developments on farmland. It is now easier to use farmland in some areas for residential, industrial, trade and leisure purposes while, at the same time, a series of designations and cross-compliance agreements in other areas is encouraging farmers to farm less intensively in return for financial recompense. On both scores, this dual approach has helped to keep farmland prices higher than they would otherwise have been in the shorter term. In the longer term, widespread concern that world population is in danger of outstripping the growth in food supplies, that much of developed and less-developed world lifestyles is not sustainable and that the demand for land's environmental attributes can only increase, go a long way to explain recent trends in land prices in the face of continuing deterioration in farming fortunes.

# 1 The growth of financial pressure on farming

In January 1989 the Centre for Agricultural Strategy published CAS Report 13 entitled *The changing financial structure of farming* (Harrison & Tranter, 1989). This was a detailed study of the ways in which the financial structure of British farming evolved in the post-war years and of the severe business pressures to which the industry was being subjected in the late 1980s. Central to these pressures were seven major sources of financial risks that farming was having to face in those years. These were:-

- (i) Farmers were carrying a higher proportion of the risks arising from interest rate increases not only because they had become more heavily indebted, especially to variable interest rate sources, but also because interest rates had risen in real terms.
- (ii) The almost complete withdrawal of the financial institutions from the purchase of farmland had deprived farmers of virtually their only opportunity to sell land and lease it back in order to reduce excessive debt service burdens.
- (iii) As within-the-family funding sources had diminished and become more costly, so farmers' debt levels had become higher than they would otherwise have been, and they were forced to borrow from higher cost 'commercial' sources.
- (iv) Factor employment on farms had altered, making farmers increasingly dependent on purchased inputs for which they were less able to substitute low-cost family labour.
- (v) The terms on which farmers traded continued to deteriorate as the inputs they used cost more and the products they produced commanded lower prices.



- (vi) Farm product prices had become more variable.
- (vii) Farm incomes had become more variable from year to year.

In the five years since Harrison & Tranter (1989) was published there have been few signs that farmers' fortunes have improved to any significant degree. Thus, with the exception of the recovery forecast for 1992, farm incomes in real terms have moved steadily downwards since 1987, as the following aggregate figures (from Appendix A) for the UK (1980 prices) show:-

1987	£951 million
1988	£624 million
1989	£853 million
1990	£798 million
1991	£759 million
1992	£898 million

On an index basis, with 1987 incomes equated to 100, aggregate incomes in 1991 fell to 80 and, allowing for a fall of 5% in the total numbers of farmers, average income per farm stood at around 84 - a fall in real terms of 16% over the five-year period. However, just a year later real incomes per farm are estimated to have recovered to 99% of their level in 1987 - quite a dramatic reversal of the medium-term - but not of the longer-term deterioration in farming fortunes.

This can be seen from trends in Farming Income since 1973 shown in Appendix A; thus, in the mid-1970's, aggregate incomes were more than double the levels shown in the five years after 1987. It is evident from the figures set out in that Appendix that, although Gross Product has remained at a fairly steady proportion of Gross Output, Farming Income fell from 48% of Gross Product in 1973 to 24% in 1987 and to 22% and 26% in 1991 and 1992. In other words, although Gross Output and Gross Input have changed in the same proportions (so leaving Gross Product at about the same fraction of Gross Output), nevertheless the absolute level of Gross Product remaining has become increasingly inadequate to reward the farmers' own work and to cover the costs of capital inputs.

The root cause of this deterioration in Farming Incomes has been the adverse movement in product prices relative to factor prices.

In Table 1, farming's terms of trade are shown for the years since 1978. This indicator (Product Price Index times 100 divided by Input Price Index) shows a steady movement downwards in farming's fortunes: in the years since 1978 the terms of trade on current inputs have deteriorated by 20% and on capital inputs by over 40%. In short, the prices farmers have obtained for their products have fallen behind the prices they have had to pay for the inputs they have used in their production processes, particularly those of a capital nature such as buildings and farm machinery. Many of the factors responsible for this trend are outlined in our earlier work (Harrison & Tranter, 1989). However, the main causes have been the increase in supply of farm products at rates above the level of demand, and the gradual agreement at the European Community level to cut real farm product prices in an attempt to restrict supply. (Full details of the components

**Table 1**  
**Farming's terms of trade<sup>1</sup>, UK, 1978-1992**

	On Current <sup>2</sup> Inputs	On Capital <sup>3</sup> Inputs
1978	108	113
1979	107	110
1980	100	100
1981	101	103
1982	102	103
1983	100	102
1984	96	96
1985	93	89
1986	97	87
1987	98	84
1988	94	80
1989	96	80
1990	93	77
1991	89	72
1992	88	70

<sup>1</sup> Index of Product Prices times 100 divided by Index of Input Prices (for both indices 1980 = 100).

<sup>2</sup> eg animal feeds and fertilisers etc.

<sup>3</sup> eg tractors and buildings etc.

Source: Derived from Appendices C.1 and C.2.

of both the input and product price indices from which Table 1 was constructed are provided in Appendices C.1 and C.2).

In the face of such dramatic falls in relative prices and in incomes, equally dramatic falls in capital employed and in numbers of farmers might have been expected. Neither has occurred. Take the case of capital. (See Appendix B for details of capital formation and stocks in UK agriculture since 1973). While it is true to say that the Net Stock of All Capital Assets in agriculture reached a plateau of some £13 billion over the period 1978-85 (expressed in 1985 prices), and that there has been a decline to under £12 billion by 1991, this is still approximately the capital stock level of nearly 20 years ago when real income levels were around three times greater than in recent years. Figures from the CSO (1993a) show that the Net Stock had fallen to just over £11 billion by 1992, again in real 1985 prices; unfortunately, these figures are not strictly and directly comparable with the figures shown in Appendix B.

By its very nature, the amount of capital invested in buildings and so-called fixed assets is bound to fall only slowly in value terms and even more slowly in capacity terms when write-off periods are short relative to real, physical, lives. Capital stocks can be expected therefore to continue for many years to exert a strong influence on where centres of production are located and on the technical modes of what and how production is organised. Given, therefore, that write-off periods for fixed assets for the calculation of taxable income are short relative to estimated lives for capital stock calculation purposes and for practical

business decision making, the influence of the large existing capital stock on business decision making will continue long into the future, in spite of the fact that capital costs as well as maintenance and repair costs of buildings are both about double what they were at the beginning of the 1980s (see Appendix C.1).

Because the fall in the value of the capital stock has not matched the fall in incomes, the ratio of capital to income has continued its long-term upward trend identified in our earlier report (Harrison & Tranter, 1989). As can be seen in Appendix D, in the early 1970's there was around £4 of net capital stock for every £1 of income for the industry as a whole; by 1981 that ratio had deteriorated to £7.50 of capital to every £1 of income and by 1991 to about £11 of capital to every £1 of income.

## 2 Farm business failures

It is not surprising that, in the face of such deterioration in farming fortunes, business failures have risen markedly. As we show in Appendix E for England and Wales, there were 50 bankruptcies of self-employed individuals in agriculture and horticulture in 1980, over six times as many in 1992; there were 34 company and partnership insolvencies in the same sector in 1980, over five times as many in 1992. Nevertheless, although farming bankruptcies have fallen as a proportion of all business failures in recent years, regrettably, suicides among farmers are now the fourth highest for all occupational groups in the economy (Samaritans, 1993). The distress borne by the affected farmers, their wives and other members of their families has reached alarming proportions for, by its very nature, farming is frequently geographically, socially and economically isolated (Eadie, 1992). Moreover, the failure of a farming business usually involves the complete uprooting of home as well as business for members of the family. The ties of farming tend to be narrowly location specific, and as such, can serve as a constant reminder of better fortunes and happier days in the past. But, although the victims of farming depression in the UK have not by any means gone unnoticed by the national press, nevertheless they have not received the large-scale individual financial counselling of the sort given to farmers in New Zealand (eg Cooney, 1988; Gardner, 1988; and Farming News, 1992) and elsewhere in the 1980's. Nor have there been the massive sell-outs of farm businesses such as were experienced in the USA where attempts to restructure financial arrangements extended even to legalising the revision of mortgage contract terms (Lanpher, 1988). By and large, the aftermath of farming's move into the red elsewhere has been a short but painful restructuring. Public companies in farming's ancillary sectors have suffered severely too. So have the more localised and less adequately diversified banks in America (eg Melichar,

1985; Wallace, 1986; Drabenstott & Barkema, 1989).

The farming press has devoted a lot of space to claiming that there has been a massive outmigration of farmers from the industry. For example, the recently launched SAFE Alliance which is an umbrella grouping pledged to campaign for a sustainable agriculture stated that 'more than 1 000 UK farmers and farmworkers are *driven off*' (these authors' emphasis) 'the land each month by policies which favour large-scale, intensive food production' (SAFE, 1992). The same document posed the question 'What future for farming?', going on to argue for the primacy of rural employment and claiming that, '12 000 UK farmers and farmworkers were *forced out*' (these authors' emphasis) 'of farming in 1991, more than during any of the previous 30 years. It is estimated that over the next 5-10 years a further 100 000 will go and 25 000 rural jobs in farming-related industries will be lost' (SAFE, 1992).

However, as we shall show in Chapter 3, such alarmist claims are not well borne out by official statistics for farmers. Moreover, not only might the rate of outmigration of farmers have been expected to be much more rapid than it has been, but there has been a heavy cost to this delay by the farming industry to adapt to its greatly diminished profitability – the cost of growing indebtedness. Thus, as shown in Appendix F, in 1987 Bank advances to farming (in current pounds) stood at £5.9 billion, AMC, LIC & SASC advances at £0.6 billion and instalment credit at £0.2 billion, making up a total debt of £6.7 billion which was itself over three times the level at which it stood nine years earlier. Since then, and again in current terms, Bank advances have grown by another £850 million (up by 15%), AMC and other mortgage credit has grown by over £300 million (up by a half) and instalment credit has grown by £174 million (an increase of some 90%) in spite of the fact that over the corresponding period farmers' aggregate incomes in current terms rose by only 4% cent (see Appendix A for details and estimates in real terms).

Table 2

**Indices of farming's interest burden compared with farming income, UK, selected years 1978-1992**

Year	Farming's interest charges	Farming Income
1978	100	100
1980	185	60
1982	167	84
1984	172	91
1986	193	57
1988	171	36
1990	228	46
1992	144	52

Source: Derived from Appendix H.

The contrast between the industry's falling incomes and its rising debts could scarcely be more dramatic. The figures listed in Table 2 compare total interest charges (shown in detail in Appendices G and H) and total incomes in real (1980) terms; both are expressed in Table 2 as indices in which the relevant figures for 1978 are each equated to 100.

For the real burden of debt on income to have remained unaltered both indices would have needed to change by exactly the same amounts. As it is, the industry's income in 1990 carried a total interest burden some five times as great as it did in 1978; 1992's income level suggests there has been a significant recent reduction in debt burden but the figure has yet to be confirmed. The deterioration is so striking and the apparent readiness of the Banks to acquiesce so markedly perverse that it is extraordinary that it has attracted so little attention and comment.

The first possible explanation is that it may be spurious viewed against a longer time scale – the old adage 'a trend is a trend until it changes' may apply, always a salutary reminder. However, bankers may not be entirely willing partners in this financial deterioration of the industry since they have been left with less control over their own destinies since farmers moved towards borrowing on overdraft and away from term loans in the 1970s and 1980s and into the 1990s (Harrison & Tranter, 1989).

Although there is evidence in the financial press that Britain's corresponding commercial sectors are suffering from farming's financial problems – the movement of farming's ancillary sectors out of direct farming is one example – the general impression created in the public's mind is not at all of the sort, scale or severity of readjustment undergone elsewhere. Quite the contrary, the industry has proved remarkably resilient in many respects in the face of misfortune and there are various statistics to bear out this claim.

For example, figures laid out in Appendix I show the amounts charged-off by four of the main clearing banks (charge-off occurs when the bank decides there is no prospect of recovering the loan) for the 'Agriculture, Forestry and Fishing' sector since 1987. Thus it can be seen that whilst charge-offs for this sector in 1992 were some £25 million (in real, 1980, prices) - some three times as much as had been charged-off in the previous few years - nevertheless, only then did the charged-off amount exceed 1% of the net total of loans to the sector. In comparison, the equivalent proportions for all sectors have been two to three times greater in recent years. In addition, Appendix I reveals that the level of loans charged-off to the 'Agriculture, Forestry and Fishing' sector as a proportion of total charge-offs for all sectors fell steadily between 1987 and 1990-91 with some slight reversal of the trend in 1992 - further evidence to suggest that real as farming's depression is, the industry is still regarded, by its major creditors at any rate, as an honest, trustworthy and relatively credit-worthy customer.



### 3 Some features of financial adjustment patterns

In spite of the somewhat alarmist claims to the contrary made by some commentators, there is remarkably little evidence of farmers quitting the industry in excessively massive numbers in response to financial pressure. For example, the official statistics, presented in Table 3 which follows, show that between 1985 and 1992 the numbers of farmers, partners and directors doing farm work in England fell by only 4.1 % – ie less than 1 % a year. Moreover, we know from repeating (in 1990) the postal survey on which much of Harrison & Tranter (1989) was based that only about 5% were definitely planning to retire in the next three years (Errington & Tranter, 1991). Expressed on an annual basis, this is less than the 2-3% or thereabouts who might have been expected to retire on 'normal' age grounds and the 2% or so net decline in numbers, after allowing for new entrant replacements, discovered in earlier, smaller scale studies (such as Harrison, 1965 & 1967). Such modest numbers of outgoers contrast markedly with the decline (see Table 3) in the size of the whole-time regular hired work force which, in the years since 1985, has been running down – surely not painlessly – at around seven times the annual rate of decline in numbers of farmers, partners and directors.

The reason for this relatively modest rate of outmigration of farmers from the industry is due to two very different factors. First, there is a large majority of farmers who are not heavily indebted, who are not making losses and who are still looking to growth as the way ahead while, second, and conversely, there is a heavily indebted minority who find the cost of moving out unacceptably high – they are the locked-in minority. Correspondingly, the repeat survey (detailed in Errington & Tranter, 1991) shows that farmers are finding it increasingly difficult to identify and employ means other than retirement to reduce their dependence on farming for their livelihoods. The industry is becoming more and

Table 3

The size of the farm labour force<sup>1</sup>, England, 1985-1992 (thousands)

Main labour categories	1985	1986	1987	1988	1989	1990	1991	1992	Change (%) 1985-1992
Total labour force (inc farmers and spouses)	498.0	492.4	483.2	469.9	457.4	455.9	445.0	440.2	-11.6
Farmers, partners and directors (doing farm work)	189.2	189.6	188.4	183.5	182.4	181.9	180.3	181.5	-4.1
Wives/husbands of farmers, partners and directors (doing farm work)	51.9	52.0	51.9	51.2	50.7	50.5	49.6	49.8	-4.0
Whole-time regular family workers	20.7	22.5	21.8	20.4	19.4	18.5	18.1	17.5	-15.5
Part-time regular family workers	11.8	12.5	12.3	12.3	11.3	11.4	11.8	11.4	-3.4
Total regular family workers	32.5	35.0	34.1	32.7	30.7	29.9	29.9	28.9	-11.1
Whole-time regular hired workers	104.0	96.6	91.5	87.3	84.1	81.5	77.5	74.2	-28.7
Part-time regular hired	35.6	35.1	34.5	35.1	33.9	34.3	33.3	31.9	-10.4
Total regular hired workers	139.6	131.7	126.0	122.4	118.0	115.8	110.8	106.1	-24.0

<sup>1</sup> At June each year with horticultural holdings included.

Source: GSS (1988a, 1990b &amp; 1992b).

more polarised. Thus, although in the follow-up survey there were 36 % (against 32 % in the earlier) who had experienced no change or an improvement in farm income, there were 3 % more in the second study (23 % against 20 %) who had suffered serious income falls. Moreover, some 35% of those with income reductions in the more recent study had serious falls in income against 29% in the earlier. Both studies showed that farmers who believed they could increase income while at the same time cutting costs were in the majority; however, as we have seen, while labour costs can be reduced quickly and directly, capital costs work more slowly via their effects on the net stock of assets which has fallen only a little in real terms. In addition, as shown in Table 4, the more recent study reveals a notable fall in the numbers of farmers who thought they could keep on making the same sorts of changes that they had already made. Farmers in the category who had 'already done' have come greatly to exceed those who have 'done and still plan to do'; yet the perceived pressure to change has become greater. Whereas there were 34.4% in the planned no-change category (ie 'carry-on as before') in the earlier survey, there were only 5.8% in that category in the later survey.

However, the contrast between the two surveys shown in Table 4 does not end there. Thus, the 25.3% who, in the original study planned to 'increase output' were down to 23.5% in the second; the 12.7% who proposed to 'introduce a more profitable enterprise' had fallen to 7.3%; originally only 8.6% had managed to 'borrow more cheaply' whereas 10.1 % were doing so by the time of the second enquiry. But financial restructuring is still not regarded as a major way to improve business viability and performance although there has been a slight shift towards selling machinery to settle debts (4.3 % up to 4.9 %) and towards selling buildings for the same purpose (4.2 % up to 7.3 %).

Although the changes identified above are all relatively small and the differences are not always significant statistically speaking, collectively, they mark an interesting development in farmers' attitudes towards change and in their assessment of the room they have to improve their fortunes. Fewer were involved, but it is surely no less a sign of the times that over twice as many respondents in the second survey had taken up paid employment outside the farm as in the first and half as many again planned to do so; about 60% more had set-up a non-farming enterprise on the farm and there had been a corresponding increase in the numbers setting up a non-farming enterprise off it. Anecdotal evidence and observation suggests that both developments are likely to have increased in more recent years.

Collectively the second survey's figures of small-scale adjustments emphasize the extent to which farmers planning to make wholesale alterations in their business arrangements are in the minority (Errington & Tranter, 1991). There is no reliable evidence of mass exodus; what farmers are doing is both logical and practical while at the same time it reflects their limited opportunities to effect 'beneficial' changes. By the same token, the figures just identified imply that there is a substantial majority that is not under such financial pressure as to feel

Table 4

Action<sup>1</sup> taken or planned to counteract the effects of the recession in farming - comparison of 1986/87 and 1990 survey results in England

	Proportion (%) of respondents <sup>2</sup> who had ...			
	Not taken or planned	Have taken	Plan to take	Taken and planned
<b>Steps to increase income</b>				
Increase output from existing enterprises	(29.6) 31.6	(45.1) 44.9	(11.4) 8.2	(13.9) 15.3
Introduce a more profitable enterprise	(73.9) 78.7	(13.4) 14.0	(10.7) 6.2	(2.0) 1.1
Cut out an unprofitable enterprise	(69.4) 72.0	(20.0) 19.9	(8.7) 6.3	(1.9) 1.8
Take-up paid employment outside the farm	(95.9) 91.7	(2.3) 5.2	(1.6) 2.4	(0.2) 0.7
Set up a non-farming enterprise on the farm	(85.0) 80.8	(7.2) 11.6	(6.7) 1.5	(1.1) 1.5
Set up a non-farming enterprise off the farm	(95.0) 93.1	(2.4) 4.2	(2.3) 2.6	(0.3) 0.1
<b>Steps to cut the direct costs of farming</b>				
Reduce the amount of inputs used	(47.1) 55.1	(32.1) 29.0	(12.5) 9.6	(8.3) 6.3
Reduce labour costs	(62.0) 57.4	(25.8) 30.8	(8.0) 7.4	(4.2) 4.4
Reduce machinery costs	(48.7) 49.5	(28.8) 34.4	(15.6) 10.3	(6.9) 5.8
<b>Steps to cut the cost of borrowing</b>				
Lengthen the repayment period of loans	(92.2) 94.8	(4.9) 3.7	(2.8) 1.3	(0.1) 0.2
Borrow from cheaper/lower interest sources	(84.4) 84.6	(8.0) 9.3	(7.0) 5.3	(0.6) 0.8
Sell land to pay off debts/reduce overdraft	(89.3) 88.3	(5.6) 6.0	(4.2) 4.8	(0.9) 0.9
Sell machinery to pay off debts/reduce overdraft	(93.7) 92.8	(3.8) 4.5	(2.0) 2.3	(0.5) 0.4
Sell buildings to pay off debts/reduce overdraft	(93.0) 87.5	(3.6) 6.0	(2.8) 5.2	(0.6) 1.3
Sell non-farm assets to pay off debts/reduce overdraft	(91.7) 92.9	(5.0) 4.3	(2.4) 2.2	(0.9) 0.6
<b>Other steps</b>				
Carry on as before	(57.1) 91.0	(8.5) 3.2	(28.6) 3.5	(5.8) 2.3
Take advice on financial matters	(69.4) 70.5	(16.8) 16.0	(8.0) 6.6	(5.8) 6.9
Increase farm area to spread costs	(81.0) 80.8	(7.8) 9.3	(9.8) 8.0	(1.4) 1.9
Leave farming altogether	(94.9) 93.8	(0.3) 1.2	(4.8) 5.0	(0.0) 0.0

<sup>1</sup> Figures in brackets are for the 1986/87 survey. Note that the 1986/87 survey had 22 steps and asked what action was taken in the last two years and what was planned for the next two years whereas the 1990 survey had 19 steps and used three years as the period in question.

<sup>2</sup> The 1986/87 survey had 1276 respondents to the above questions; the 1990 survey had 793 respondents.

Source: Reproduced from Errington & Tranter (1991).

Table 5

The distribution and characteristics of farm businesses in the Farm Business Survey in Central Southern England and the South West Midlands by financial pressure groups, 1986-1992

Farm business characteristics for each financial pressure group	Farm businesses experiencing in 1986/87:-			Farm businesses experiencing in 1987/88:-			Farm businesses experiencing in 1988/89:-		
	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure
Number of farms in the group	166	56	13	184	59	10	201	61	13
Number of farms as a proportion of total (%)	70.6	23.8	5.6	72.7	23.3	4.0	73.1	22.2	4.7
Mean farm area (ha)	138.7	160.1	117.3	161.4	125.1	137.6	168.4	180.2	121.1
Mean liabilities per farm (£)	55 698	150 505	116 164	67 334	138 057	209 641	73 561	146 959	197 184
Mean liabilities per ha (£)	401.6	940.2	990.0	417.2	1 103.6	1 523.7	436.9	815.7	1 627.9
Liabilities as a proportion of assets on the mean farm (%)	9.4	32.7	42.2	9.1	29.2	41.0	8.8	31.9	41.9
Change in the level of liabilities on the mean farm in the year (%)	-2.2	-5.1	-8.6	-1.5	+8.1	+7.4	+0.6	+4.2	+8.3
Proportion of the group having a decrease in liabilities in the year (%)	58.4	55.4	53.8	52.7	44.1	30.0	50.7	37.7	38.5

Table 5 (continued)

The distribution and characteristics of farm businesses in the Farm Business Survey in Central Southern England and the South West Midlands by financial pressure groups, 1986-1992

Farm business characteristics for each financial pressure group	Farm businesses experiencing in 1989/90:-			Farm businesses experiencing in 1990/91:-			Farm businesses experiencing in 1991/92:-		
	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure	Low <sup>1</sup> pressure	High <sup>2</sup> pressure	Very high <sup>3</sup> pressure
Number of farms in the group	174	59	20	181	61	19	140	50	11
Number of farms as a proportion of total (%)	68.8	23.3	7.9	69.3	23.4	7.3	69.6	24.9	5.5
Mean farm area (ha)	166.6	155.9	124.7	138.5	135.1	124.3	164.7	158.8	137.6
Mean liabilities per farm (£)	68 623	162 491	167 186	54 891	132 600	175 631	63 080	146 771	200 303
Mean liabilities per ha (£)	412.0	1 042.6	1 340.3	396.3	981.3	1 413.0	383.0	924.3	1 455.7
Liabilities as a proportion of assets on the mean farm (%)	7.6	30.3	26.7	7.8	27.0	29.6	7.9	27.0	33.9
Change in the level of liabilities on the mean farm in the year (%)	+8.3	+1.5	-11.8	+2.9	-0.2	+14.5	+1.0	-0.4	-2.6
Proportion of the group having a decrease in liabilities in the year (%)	48.3	39.0	50.0	46.4	50.8	15.8	51.4	48.0	36.4

<sup>1</sup> Fixed financial charges (rent and interest) <25% of gross margin.

<sup>2</sup> Fixed financial charges (rent and interest) 25-49.9% of gross margin.

<sup>3</sup> Fixed financial charges (rent and interest) 50% and over of gross margin.



driven to make radical alterations to their business arrangements. That is indeed the case; our 1990 survey showed that not only did 35% of farmers not have overdrafts in the three years covered but, a further 25 % had overdrafts which either fell or remained at about the same level as they were in 1986-87. Not surprisingly this absence of serious financial pressure made many farmers in this period incline towards expansion as the way in which to combat falling incomes and deteriorating terms of trade.

In marked contrast to this significant fraction of farmers with a low debt level is the minority who are not only heavily indebted but who are finding it hard to reduce that indebtedness; 17% of farmers experienced increases in their overdrafts of a half, or even more, in the three years before the survey. The result is that the level of indebtedness of the industry as a whole has continued to increase at a rate that is alarming to both debtors and creditors alike given the way in which income is deteriorating. Yet only 10 % of the farmers surveyed informed us that their bank managers were 'putting pressure' on them to reduce their borrowing. This possible explanation of lack of creditor pressure is borne out by individual farm business financial records on farms in the Farm Business Survey in 12 counties in Central Southern England and the South West Midlands over the six year period 1986/87 to 1991/92. Details of the distribution and characteristics of these businesses by financial pressure groups are shown in Table 5.

The numbers of farms in each of the years, beginning in 1986/87, were 235, 253, 275, 253, 261 and 201; there was a year to year carry-over of some 80% of the sample. Each farm was assigned to a financial pressure group according to the fraction of total farm gross margin which financial charges (rent and interest) represented - low pressure if under 25%; high if 25 to 49.9%; and very high if 50% or above.

Very high pressure farms were always smaller (on average) than low pressure farms and, for five of the six years, smaller than high pressure farms but the differences in sizes were not great. Numbers of high pressure farms remained little changed at between 22.2% and 24% of the sample over the period but there was some evidence of very high pressure farms becoming more numerous, 4% or 5% in the first three years rising to between 7% and 8% in two of the final three. Liabilities per hectare were regularly over two and a half times as great on very high pressure farms as on low pressure ones with this ratio reaching almost four times as great for most years. Liabilities as a proportion of assets were consistently around four times as high in the very high pressure group as in the low one.

Over the six-year period, low financial pressure farms either reduced their borrowing or restricted increases to modest amounts (with the exception of 1989/90 when their liabilities rose by over 8%). However, the time pattern of change of indebtedness of very high pressure farms is far from straightforward with reductions in liabilities alternating with increases. In 1986/87 the more indebted farms achieved the biggest percentage reduction in borrowing then,

two years later and somewhat unexpectedly, suffered increases, only to achieve again their biggest reductions in borrowing (11.8%) in 1989/90, followed by the largest rise of the period (14.5%) in 1990/91.

But, the group averages shown in Table 5 - in addition to being sometimes perverse - conceal the important fact that over the whole period, within each pressure group, the number of farms on which borrowing increased regularly exceeded the number of those on which it fell. Moreover, this has been particularly the case with those in the very high pressure group - no fewer than three out of every five farms in this heaviest pressure group stepped up their borrowing in 1991/92 in spite of the 2.6% reduction in borrowing achieved by the group as a whole.

The ultimate destinies of the farm businesses in the very high pressure group are of interest but can not be traced adequately from the samples of farms employed. The number of individual businesses in this category for all or part of the period 1986-1992 was 47. Of these 47, 21 left the Farm Business Survey over the period, one sold up and retired and, perhaps surprisingly, none went bankrupt. Of the remaining 25 who were still in the Survey in 1993, almost half remained in the very high pressure group and virtually all the rest in the high pressure group - both groups showing remarkable resilience in the face of such continuing financial pressure.

Table 5 shows that, over the period 1986-1992, some 70% of farmers in the sample were not under serious financial pressure (ie their fixed financial charges were less than 25% of their gross margin). Reassuring as this is, it is evident that the great majority of those who were under severe financial pressure have kept going only by further adding to their debts. Few farmers have undertaken a radical restructuring of their financial arrangements. This was one of the more striking conclusions reached in our first report (Harrison & Tranter, 1989) and it might well be thought a matter for further examination as to why that should be the case.

## 4 Financial adjustment and land prices

Although farm income trends do not justify granting additional borrowing on investment grounds, they immediately suggest reasons why some farmers might be likely to seek to borrow more. However, if growing indebtedness is not to be dismissed as either perverse or spurious, attention has to be focussed on the possible belief by landowners that future benefits from land ownership from whatever sources will be more buoyant than more narrowly farming income in recent decades justifies. Moreover, if that is the case, then it will serve to explain not only the somewhat perverse recent movements in land prices but to emphasize their collateral enhancing effects so reassuring to both farmers and bankers alike.

As is shown in Table 6, although land prices per hectare in England fell from £3129 in 1980 to £2100 in 1988, they rose again to £2379 in 1989 and to £2477 in 1990 - all in real (1980) terms. Since then they have fallen again sharply but, in 1992, were less than £2000 per hectare for only the first time in the period since 1978. They stand in marked contrast therefore to the purchasing power of farm incomes which has halved (see Appendix A). Rents also have risen though only in current terms, and at a reducing rate. As detailed in Appendix J, farm rents peaked in real terms in the mid-1980s but have fallen by some 25% since - probably reflecting the frequently commented on tendency for rents to lag behind land price movements on both the 'up' and the 'down' cycles. Certainly, recent trends in prices and incomes suggest that the observation that 'farmland prices are a function of farm incomes' is in need of significant revision if it is not to lose its empirical relevance entirely.

The factors supporting land prices seem to be essentially political, embracing on the one hand the likelihood that planning permission for development purposes - housing, rural industries and leisure premises and land uses - will be

Table 6

The price, the area and the number of transactions of agricultural land sales<sup>1</sup>, England, 1978-1992

Years ending at 30th September	Price of land sold in current terms (£/ha)	Price of land sold in real terms <sup>2</sup> (£/ha)	Total area sold (ha)	Number of transactions
1978	1 909	2 612	170 407	5 292
1979	2 434	2 911	145 420	4 310
1980	3 129	3 129	162 781	4 940
1981	3 316	2 978	125 243	4 319
1982	3 283	2 741	147 473	4 854
1983	3 535	2 800	149 117	5 209
1984	3 631	2 749	143 924	4 689
1985	3 788	2 716	117 621	4 162
1986	3 654	2 532	119 712	4 531
1987	3 311	2 185	111 466	3 836
1988	3 398	2 100	120 517	3 593
1989	4 108	2 379	133 052	3 941
1990	4 562	2 477	109 312	3 269
1991	4 429	2 263	128 504	3 559
1992	4 010	1 961	82 475	2 720

<sup>1</sup> All parcels of agricultural land over 5 ha from the statutory Inland Revenue series. It excludes gifts and inheritances and land sold for development. There is thought to be a time-lag between a sale and it being included in the series of, on average, 9 months.

<sup>2</sup> In 1980 prices, deflated by the implied GDP deflator.

Source: Derived from GSS (1989b & 1993c).

granted more readily, and, on the other, the belief that farmers will be gainers not losers as society in general searches for more conservation and environmental protection in addition to more open access to the countryside. Certainly, sales statistics indicate that farmers are not looking to reduce their land holdings. As Table 6 shows, offerings (in terms of both area and number of parcels) of farmland for sale in England have reduced steadily over the last 15 years so indicating the failure of market prices to match farmers' reserve values; thus, while annual sales ran at some 170 000 ha in 1978, they have fallen steadily since then to less than half of that figure in 1992. Moreover, these relatively buoyant prices have been achieved without the price enhancing effects of active competition for land by the financial institutions and have applied particularly to lower grades of farmland. For example, Appendix K shows that whilst in England, in 1978-1986, property companies and financial institutions were net *buyers* of around 65 000 ha of farmland, during 1987-1992 they were net *sellers* of some 40 000 ha. Correspondingly, individuals (ie mainly farmers) moved from being net *sellers* of some 115 000 ha to net *purchasers* of just over 20 000 ha between these two time periods.

Where are the signs of changing fortunes for landowners? First, there is widespread concern that population is in danger of outstripping the growth in

food supplies in many parts of the world so that the developed world phenomenon of land 'surplus' is seen as being likely to prove short-lived - perhaps lasting only a decade or so. Second, there is growing anxiety over the longer-term sustainability of both developed and less-developed world lifestyles leading to the conclusion that these will have to give way in due course to the use of more renewable energy and factor input sources. On both scores economic rents from land can be expected to rise. Hitherto, these areas of concern have not generated much in the way of policy modification likely to help farmers in the short-run. Rather, policy makers have become enmeshed in more immediate trade issues and attempts to move towards lower 'world' prices on both product and factor fronts, though these have yet to be finally determined and have been branded as prejudicial to larger (eg British) farmers' interests. More helpful to landowners in the shorter-term, though not in the longer-term if the concerns expressed prove well-founded, are the signs that there will be fewer constraints on the release of farmland for residential, industrial, trade and leisure purposes. These new attitudes are reflected in the recent Department of the Environment and Welsh Office Planning Policy Guidance note on *The Countryside and the Rural Economy* (DOE & WO, 1992) which sets out the Government's policy on this issue and how it relates to the preparation of development plans and the consideration of planning applications.

To the extent that this view of development is correct it will lead to the generation of massive capital gains for the fortunate - presumably a random process with regard to how hard or otherwise farmers have been hit by the recession and stand in need of assistance. In any event, the release of permits to develop land for such purposes will itself be strongly constrained by the significant steps already taken to zone patterns of land use nationally. Thus, in England and Wales more capital intensive farming is virtually restricted to nearly 17% of the total agricultural area, namely MAFF Agricultural Land Classification Grades One and Two of land, some 2 million hectares (MAFF, 1977). A somewhat larger area (22% of total agricultural land) is already devoted to National Parks and Areas of Outstanding Natural Beauty in England and Wales (DOE, 1991) with restrictions on use being placed on farmers according to official codes of practice. The recently-retired Director of the Countryside Commission has pointed out that there are already 28 'instruments for the protection of special places' bearing directly on farming practices in the UK (Phillips, 1993).

There has, as yet, been no radical shift towards granting the public free access to private land nor has there been a comprehensive thinking-through of policies based on achieving market responses to taxes on environmental damage, either directly or by penalising surrogate factors (like fertilisers or large-scale animal production units). On balance nevertheless, the signs are that policy makers are set to treat farmers as vested with full proprietary interests in their land holdings both as producers and as the sellers of environmental attributes. The rest of the community is, therefore, being placed in the position of seeking to buy injunctions

from them; indeed, the principle of cross-compliance is now well-established with Schemes like Environmentally Sensitive Areas and Countryside Stewardship in full operation whereby farmers have to farm less intensively in return for financial recompense (MAFF, 1993a). In these terms recent trends in land prices in the face of continuing deterioration in farming fortunes are more readily understandable.



# Appendix A

## Agricultural Output, Input and Farming Income, UK, 1973-1992<sup>1</sup> (£M)

Year	Gross Output	Gross Input	Gross Product	GP/GO (%)	Farming Income <sup>2</sup>	FI/GP (%)
1973	10 768	5 606	5 160	48	2 501	48
1974	10 725	5 983	4 741	44	1 888	40
1975	9 810	5 216	4 594	47	1 856	40
1976	10 414	5 625	4 791	46	2 010	42
1977	10 466	5 667	4 798	46	1 920	40
1978	9 994	5 307	4 686	47	1 730	37
1979	9 777	5 297	4 482	46	1 371	31
1980	8 999	4 844	4 155	46	1 044	25
1981	8 837	4 624	4 214	48	1 222	29
1982	9 345	4 906	4 440	48	1 460	33
1983	9 192	5 089	4 104	45	1 121	27
1984	9 565	4 998	4 566	48	1 567	34
1985	8 601	4 712	3 889	45	778	20
1986	8 534	4 516	4 017	47	989	25
1987	8 173	4 272	3 902	48	951	24
1988	7 747	4 223	3 523	46	624	18
1989	7 847	4 039	3 808	49	853	22
1990	7 578	3 822	3 756	49	798	21
1991	7 189	3 659	3 530	49	759	22
1992 <sup>3</sup>	7 039	3 552	3 488	50	898	26

<sup>1</sup> In 1980 prices deflated by the implied GDP deflator.

<sup>2</sup> The return to farmers (and their spouses) for their labour, management skills and own capital invested after providing for depreciation.

<sup>3</sup> Forecast.

Source: Derived from MAFF (1978 & 1993b) and MAFF Statistics (Agricultural Commodities) Division (1988).

# Appendix B.1

## Capital formation<sup>1</sup> in UK Agriculture - All Assets, 1973-1991 (£M)

Year	Gross Capital Formation	Retirements	Gross Stock	Capital Consumption	Net Capital Formation	Net Stock
1973	1 767.6	903.9	20 867.6	1 167.0	600.7	12 188.4
1974	1 523.7	907.4	21 483.9	1 200.5	323.3	12 511.7
1975	1 337.2	927.8	21 893.3	1 220.1	117.0	12 628.7
1976	1 366.3	943.1	22 316.5	1 236.1	130.2	12 758.9
1977	1 368.6	948.7	22 736.3	1 254.8	113.9	12 872.7
1978	1 496.9	955.5	23 277.7	1 277.1	219.8	13 092.6
1979	1 368.0	977.3	23 668.4	1 296.7	71.2	13 163.8
1980	1 198.9	1 011.3	23 856.0	1 300.7	-101.8	13 062.0
1981	1 053.6	1 037.1	23 872.5	1 290.3	-236.7	12 825.3
1982	1 308.0	1 067.9	24 112.6	1 281.9	26.0	12 851.3
1983	1 412.8	1 095.7	24 429.7	1 282.8	129.9	12 981.3
1984	1 381.8	1 110.4	24 701.1	1 284.3	97.5	13 078.8
1985	1 040.0	1 117.2	24 624.0	1 273.3	-233.3	12 845.4
1986	1 019.4	1 131.5	24 511.8	1 253.9	-234.5	12 610.9
1987	1 052.3	1 134.6	24 429.6	1 236.5	-184.2	12 426.9
1988	1 105.5	1 134.1	24 400.9	1 223.6	-118.2	12 308.7
1989	1 079.1	1 141.7	24 338.4	1 214.9	-135.7	12 173.0
1990	933.9	1 139.0	24 133.3	1 201.2	-267.4	11 905.6
1991	830.3	1 123.5	23 840.0	1 179.7	-349.4	11 556.2

<sup>1</sup> In terms of 1985 prices.

Source: CSO (pers comm).

## Appendix B.2

### Capital formation<sup>1</sup> in UK Agriculture - Buildings, Transfer Costs and Tenants' Fixtures, 1973-1991 (£M)

Year	Gross Capital Formation	Retirements	Gross Stock	Capital Consumption	Net Capital Formation	Net Stock
1973	728.0	114.1	10 456.0	342.1	385.9	6 800.1
1974	644.4	126.3	10 974.1	361.0	283.3	7 083.4
1975	539.7	136.1	11 377.7	376.4	163.3	7 246.7
1976	472.6	143.6	11 706.7	388.5	84.1	7 330.8
1977	469.4	153.3	12 022.7	399.2	70.2	7 401.0
1978	562.7	161.4	12 424.0	411.2	151.5	7 552.4
1979	552.3	172.4	12 803.9	424.2	128.2	7 680.6
1980	587.9	183.1	13 208.8	437.3	150.7	7 831.2
1981	500.0	192.2	13 516.6	449.2	50.7	7 881.9
1982	622.7	203.7	13 935.6	461.5	161.3	8 043.2
1983	663.5	218.8	14 380.3	476.1	187.5	8 230.6
1984	702.1	232.8	14 849.5	491.5	210.6	8 441.1
1985	515.0	245.7	15 118.9	503.8	11.2	8 452.3
1986	417.4	258.9	15 277.4	510.8	-93.4	8 358.9
1987	474.0	274.4	15 477.0	516.6	-42.5	8 316.4
1988	418.9	293.1	15 602.8	521.7	-102.8	8 213.6
1989	406.1	314.7	15 694.2	524.9	-118.9	8 094.7
1990	403.2	331.7	15 765.7	527.3	-124.1	7 970.6
1991	406.9	355.4	15 817.2	529.0	-122.1	7 848.5

<sup>1</sup> In terms of 1985 prices.  
Source: CSO (pers comm).

### Appendix B.3

#### Capital formation<sup>1</sup> in UK Agriculture - Plant, 1973-1991 (£M)

Year	Gross Capital Formation	Retirements	Gross Stock	Capital Consumption	Net Capital Formation	Net Stock
1973	843.7	639.1	8 855.7	671.4	172.3	4 553.8
1974	703.8	638.1	8 921.4	681.9	21.8	4 575.6
1975	636.6	649.2	8 908.8	683.6	-47.0	4 528.6
1976	759.1	657.3	9 010.6	686.9	72.1	4 600.8
1977	742.6	657.0	9 096.2	694.3	48.3	4 649.1
1978	756.5	661.2	9 191.5	701.4	55.1	4 704.2
1979	653.2	660.6	9 184.1	704.8	-51.6	4 652.7
1980	498.0	670.0	9 012.2	697.3	-199.3	4 453.2
1981	421.1	676.0	8 757.2	679.6	-258.5	4 194.8
1982	553.9	685.6	8 625.6	663.6	-109.7	4 085.1
1983	609.1	688.8	8 545.8	654.8	-45.7	4 039.4
1984	540.8	701.5	8 385.2	644.9	-104.1	3 935.3
1985	458.0	706.8	8 136.4	628.2	-170.2	3 765.3
1986	489.6	711.6	7 914.4	609.0	-119.4	3 645.8
1987	471.1	701.7	7 683.9	591.0	-120.0	3 525.8
1988	575.0	692.1	7 566.8	577.6	-2.6	3 523.3
1989	553.0	678.5	7 441.3	568.8	-15.7	3 507.6
1990	385.0	663.9	7 162.3	553.9	-168.9	3 338.7
1991	293.0	632.2	6 823.1	530.8	-237.8	3 100.9

<sup>1</sup> In terms of 1985 prices.

Source: CSO (pers comm).

# Appendix B.4

## Capital formation<sup>1</sup> in UK Agriculture - Road Vehicles, 1973-1991 (£M)

Year	Gross Capital Formation	Retirements	Gross Stock	Capital Consumption	Net Capital Formation	Net Stock
1973	195.9	150.7	1 555.8	153.4	42.5	834.5
1974	175.6	143.0	1 588.4	157.5	18.1	852.6
1975	160.9	142.5	1 606.8	160.1	0.7	853.4
1976	134.6	142.3	1 599.2	160.7	-26.1	827.3
1977	156.7	138.4	1 617.4	161.3	-4.6	822.7
1978	177.8	132.9	1 662.2	164.6	1.5	835.9
1979	162.4	144.3	1 680.4	167.8	-5.3	830.5
1980	113.0	158.2	1 635.1	166.1	-53.1	777.5
1981	132.5	168.9	1 598.7	161.5	-28.9	748.5
1982	131.3	178.5	1 551.5.	156.8	-25.4	723.1
1983	140.1	188.1	1 503.7	151.9	-11.8	711.3
1984	138.9	176.2	1 466.4	147.9	-9.0	702.2
1985	67.0	164.7	1 368.7	141.4	-74.4	627.8
1986	112.0	161.1	1 320.0	134.0	-21.6	606.3
1987	107.2	158.5	1 268.8	128.8	-21.6	584.6
1988	111.5	148.9	1 231.4	124.3	-12.8	571.9
1989	120.1	148.5	1 203.0	121.1	-1.1	570.8
1990	145.7	143.4	1 205.2	120.1	25.6	596.4
1991	130.4	135.9	1 199.7	120.1	10.3	606.7

<sup>1</sup> In terms of 1985 prices.

Source: CSO (pers comm).

# Appendix C.1

## Indices<sup>1</sup> of prices of major inputs employed on farms, UK, 1978-1992

	Weights	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Inputs currently consumed	100	80	89	100	110	118	126	131	133	131	131	137	145	151	157	161
of which:-																
Animal feeds	46	84	94	100	108	114	124	127	123	124	125	131	139	140	142	146
Fertilisers, etc	14	79	86	100	110	116	117	120	128	116	106	109	118	120	117	110
Energy & lubricants	9	64	77	100	121	137	151	155	169	134	131	125	138	156	162	158
Plant protection	4	82	86	100	107	112	112	116	121	124	129	134	139	153	171	179
Maintenance & repairs																
- plant & machinery	6	77	86	100	109	119	128	139	152	161	169	179	189	207	229	247
- buildings	4	74	85	100	110	119	128	136	145	153	157	164	179	188	194	195

Inputs contributing to investment	100	76	86	100	108	117	124	131	139	146	153	168	173	183	194	201
of which:-																
Tractors	23	81	89	100	107	114	123	134	144	152	156	164	169	177	184	190
Buildings	36	72	83	100	109	118	127	135	142	148	156	165	179	191	202	209

<sup>1</sup> 1980 = 100.

Source: Derived from Harrison & Tranter (1989) and GSS (1993d).

## Appendix C.2

Indices<sup>1</sup> of producer prices of agricultural products and retail prices, selected items, UK, 1978-1992

	Weights	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
All agricultural products	100	86	95	100	111	120	126	126	124	127	129	129	139	140	140	141
of which:-																
All crop products	34	87	100	100	112	121	137	132	121	129	130	122	131	138	140	133
of which:-																
Cereals	16	88	98	100	110	119	132	122	116	116	115	112	113	115	121	123
Potatoes (main crop)	3	77	124	100	131	159	214	197	100	184	196	138	195	231	202	167
Sugar beet	2	87	100	100	105	116	116	117	110	115	108	109	114	118	127	131
Fresh vegetables	6	80	102	100	110	113	133	131	141	132	147	142	144	158	159	140
Fresh fruit	2	110	98	100	126	133	142	144	152	179	165	174	183	208	207	181
Animal and animal products	66	86	92	100	110	119	120	123	125	125	128	132	148	140	139	146
of which:-																
Animals for slaughter	37	89	95	100	111	120	122	126	125	125	126	129	139	134	129	139
Milk	23	83	88	100	110	120	123	122	129	134	139	149	158	159	166	170
Eggs	6	79	88	100	106	108	96	111	104	85	95	81	97	111	97	95
Retail prices:-																
Food	-	80	89	100	108	117	121	127	131	136	140	145	153	165	173	177
All items	-	74	85	100	112	121	127	133	142	146	152	160	172	189	200	208

<sup>1</sup> 1980 = 100.

Source: Derived from CSO (1993b), Harrison &amp; Tranter (1989) and GSS (1993d).

## Appendix D

### Capital to Income ratios in UK farming, selected years, 1973-1991

	Net Stock <sup>1</sup> of Capital (All Assets) (£M)	Farming Income <sup>1,2</sup> (£M)	Capital to Income Ratio <sup>3</sup>
1973	12 188	3 488	3.5
1975	12 629	2 591	4.9
1977	12 873	2 679	4.8
1979	13 164	1 914	6.9
1981	12 825	1 705	7.5
1983	12 981	1 565	8.3
1985	12 845	1 085	11.8
1987	12 427	1 327	9.4
1989	12 173	1 189	10.2
1991	11 556	1 058	10.9

<sup>1</sup> In 1985 prices deflated by the implied GDP deflator.

<sup>2</sup> The return to farmers (and their spouses) for their labour, management skills and own capital invested after providing for depreciation.

<sup>3</sup> ie how much capital was needed to generate £1 of income.

Source: Derived from Appendices A and B.



# Appendix E

## Insolvencies in the agricultural and horticultural sectors, England and Wales, 1980-1992

	Individuals <sup>1</sup> : bankruptcies and deeds of arrangement		Company <sup>2</sup> insolvencies		All insolvencies	
	Number	% of total	Number	% of total	Number	% of total
1980	50	1.3	34	0.5	84	0.8
1981	70	1.5	51	0.5	121	0.8
1982	78	1.5	54	0.6	132	0.9
1983	98	1.5	74	0.6	172	0.9
1984	155	2.0	77	0.6	232	1.1
1985	136	2.1	102	0.7	238	1.1
1986	130	1.9	128	0.9	258	1.2
1987	172	2.4	126	1.1	298	1.6
1988	163	2.1	73	0.8	236	1.4
1989	142	1.7	78	0.7	220	1.2
1990	198	1.6	111	0.7	309	1.1
1991	266	1.2	135	0.6	401	0.8
1992	313	1.0	191	0.8	504	0.9

<sup>1</sup> Self-employed individuals.

<sup>2</sup> Including partnerships.

Source: Department of Trade and Industry figures presented by the Association of British Chambers of Commerce (1983, 1991 & 1993).

## Appendix F

### Interest rates and agricultural credit, UK, 1978-1992

	Interest rates (%):-		Credit outstanding to agriculture (£M current)			
	Average base lending rate (%)	Average interest rate on bank advances to agriculture (%)	Bank advances <sup>1</sup>	AMC, LIC and SASC <sup>2</sup>	Instalment credit <sup>3</sup>	Total
1978	9.1	11.6	1 705	365	73	2 143
1979	13.7	16.1	2 234	396	86	2 716
1980	16.3	18.7	2 844	417	101	3 362
1981	13.3	15.6	3 380	422	106	3 908
1982	11.9	14.3	3 997	438	115	4 550
1983	9.8	12.2	4 718	486	140	5 344
1984	9.7	12.2	5 275	549	162	5 986
1985	12.3	14.7	5 543	589	188	6 320
1986	10.9	13.3	5 909	609	200	6 718
1987	9.7	12.1	5 908	633	200	6 741
1988	10.1	12.5	6 142	664	232	7 308
1989	13.9	16.2	6 548	711	268	7 527
1990	14.8	17.1	6 894	834	295	8 023
1991	11.7	14.3	6 946	900	340	8 186
1992 <sup>4</sup>	9.6	12.3	6 751	977	374	8 102

<sup>1</sup> Based on returns by the banks.

<sup>2</sup> Derived from quarterly information supplied by the Agricultural Mortgage Corporation, the Lands Improvement Company and the Scottish Agricultural Securities Corporation. In 1991 and 1992, no information was supplied by the Lands Improvement Company.

<sup>3</sup> That outstanding on June 30 based on returns by finance houses to DTI and on farm accounts data.

<sup>4</sup> Forecast.

Source: Derived from Johnson (1986), MAFF (pers comm), MAFF (1993b) and MAFF Statistics (Agricultural Commodities) Division (1988).

## Appendix G

## Farming's total interest burden, UK, 1978-1992 (£M in current prices)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992 <sup>1</sup>
Total bank interest <sup>2</sup>	178.1	321.7	475.2	472.0	494.2	462.0	537.7	676.0	656.5	595.2	635.6	880.5	978.0	826.0	687.0
Instalment credit	10.4	16.3	22.8	20.8	20.8	22.2	24.3	33.1	30.4	29.2	33.8	48.2	54.0	48.0	47.0
Agricultural Mortgage Corporation	3.5	4.5	5.1	4.7	4.8	4.7	6.3	6.8	6.2	6.9	6.6	9.3	15.0	20.0	19.0
Other credit <sup>3</sup>	5.6	10.9	17.2	20.7	29.1	43.1	44.5	55.4	61.1	45.6	53.6	69.7	62.0	52.0	42.0
Less interest on Deposits <sup>4</sup>	14.0	35.1	55.9	50.0	48.3	38.4	44.1	67.0	54.4	39.9	34.0	52.2	58.0	63.0	54.0
Total interest charges	183.5	318.4	464.4	468.2	500.6	493.5	568.7	704.3	699.8	637.0	695.6	955.5	1052.0	883.0	741.0

<sup>1</sup> Forecast.<sup>2</sup> On advances for current farming purposes and buildings/works.<sup>3</sup> Including DANU loans fund, Agricultural Credit Corporation charges, leasing charges, and borrowings from private sources.<sup>4</sup> Interest earned on money from the farm business held on short term deposits.

Source: MAFF Statistics (Agricultural Commodities) Division (1988) and MAFF (1993b).

## Appendix H

### Farming's total interest burden in comparison with farming income, UK, 1978-1992

	Farming's total interest charges <sup>1</sup> (£M)	Farming Income <sup>1</sup> (£M)	Farming's total interest charges <sup>2</sup>	Farming Income <sup>2</sup>
1978	251	1 730	100	100
1979	381	1 371	152	79
1980	464	1 044	185	60
1981	420	1 222	167	71
1982	418	1 460	167	84
1983	391	1 121	156	65
1984	431	1 567	172	91
1985	505	778	201	45
1986	485	989	193	57
1987	420	951	167	55
1988	430	624	171	36
1989	553	853	220	49
1990	571	798	228	46
1991	451	759	180	44
1992 <sup>3</sup>	362	898	144	52

<sup>1</sup> In 1980 prices, deflated by the implied GDP deflator.

<sup>2</sup> Indices in 1980 terms.

<sup>3</sup> Forecast.

Source: Derived from Appendices A and G.

# Appendix I

**Loans<sup>1</sup>, to agriculture, forestry and fishing and all sectors, charged-off by four<sup>2</sup> of the main clearing banks, in comparison with net loans, UK, 1987-1992**

Years <sup>3</sup> ending 31st December	1987	1988	1989	1990	1991	1992
<u>Loans to the 'agriculture, forestry and fishing' sector:-</u>						
Net total (£M)	2 678	2 732	2 708	2 584	2 479	2 267
Loans charged-off:-						
Total (£M)	11.2	8.4	7.8	7.4	13.7	25.3
As proportion of sector net total (%)	0.4	0.3	0.3	0.3	0.6	1.1
<u>Loans to all sectors:-</u>						
Net total (£M)	65 990	80 580	87 675	87 776	82 776	80 362
Loans charged-off:-						
Total (£M)	471	405	565	935	1 520	2 123
As proportion of all sectors net total (%)	0.7	0.5	0.6	1.1	1.8	2.6
<u>Loans to 'agriculture, forestry and fishing' charged-off as a proportion of all loans charged-off (%)</u>						
	2.4	2.1	1.4	0.8	0.9	1.2

<sup>1</sup> In real, 1980 prices, deflated by the implied GDP deflator.

<sup>2</sup> Barclays Bank plc, the Midland Bank plc, the National Westminster Bank plc and the Royal Bank of Scotland Group plc.

<sup>3</sup> With the exception of the Royal Bank of Scotland Group plc which has a year end of 30th September. Source: Barclays Bank (1992 & 1993), Midland Bank (1992 & 1993), National Westminster Bank (1992 & 1993) and Royal Bank of Scotland (1992 & 1993).

**Appendix J**  
**Farm rents<sup>1</sup> in England, 1978-1992 (£/ha)**

Years ending in mid-October	Rent in current terms	Rent in real <sup>2</sup> terms	Change (%) from previous year in current terms
1978	40.20	54.99	+17.7
1979	47.90	57.29	+19.2
1980	56.79	56.79	+18.6
1981	64.19	57.64	+13.0
1982	72.25	60.33	+12.6
1983	79.57	63.02	+10.1
1984	85.97	65.08	+7.1
1985	92.07	66.01	+7.1
1986	95.55	66.22	+3.8
1987	96.29	63.55	+0.8
1988	96.20	59.45	-0.1
1989	99.03	57.34	+2.9
1990	99.41	53.98	+0.4
1991	99.90	51.05	+0.5
1992	100.87	49.33	+1.0

<sup>1</sup> Weighted average of all farms in the annual rent enquiry including (since 1987) those due a rent review.

<sup>2</sup> In 1980 prices, deflated by the implied GDP deflator.

Source: Derived from Harrison & Tranter (1989) and GSS (1993b).

#### 44 Appendix K

### Sales and purchases<sup>1</sup> of vacant possession and tenanted agricultural land by type of vendor/purchaser, England, 1978-1992<sup>2</sup>(ha)

	1987			1988			1989			1978-1986	
	VP	T	All	VP	T	All	VP	T	All	All sales	All sales
Individual	+3 526	+655	+4 181	-54	+1 273	+1 219	+4 052	+2 884	+6 936	-114 745	
Property Company	na	na	-445	na	na	+1 415	+571	+2 260	+2 831	+11 945	
Financial Institution	-2 398	-409	-2 807	-9 746	-121	-11 867	-8 562	-4 871	-13 433	+53 467	
Other Company	+2 344	+129	+2 473	+9 083	+844	+9 977	+5 127	-19	+5 108	+53 632	
Public Authority	na	na	-314	na	na	-373	-1 188	-254	-474	-4 299	
Other <sup>3</sup>	na	na	-3 088	+53	-424	-371			-968		
	1990			1991			1992			1987-1992	
	VP	T	All	VP	T	All	VP	T	All	All sales	All sales
Individual	+6 602	+1 294	+7 896	-330	+2 278	+1 948	+148	+317	+465	+22 645	
Property Company	-5 504	-750	+298	+449	-1 895	-1 446	na	na	+299	+2 952	
Financial Institution			-6 552	-2 305	-4 057	-6 362	na	na	-3 778	-44 799	
Other Company	+593	+657	+1 250	+3 023	+1 588	+4 611	+2 075	+706	+2 781	+26 200	
Public Authority	-149	-573	-722	-837	+2 086	+1 249	na	na	-940	-6 998	
Other <sup>3</sup>	-1 542	-628	-2 170						+1 173		

<sup>1</sup> Sales in terms of aggregate area; + indicates net purchasers; - indicates net sellers; all parcels of agricultural land from the statutory Inland Revenue series are included with the exception of gifts and inheritances and land sold for development.

<sup>2</sup> Years ending at 30th September; there is thought to be a time-lag between a sale and it being included in the series of, on average, 9 months.

<sup>3</sup> Includes not known.

Source: Derived from Harrison & Tranter (1989) and GSS (1988a, 1989a, 1990a, 1991, 1992a & 1993a).

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