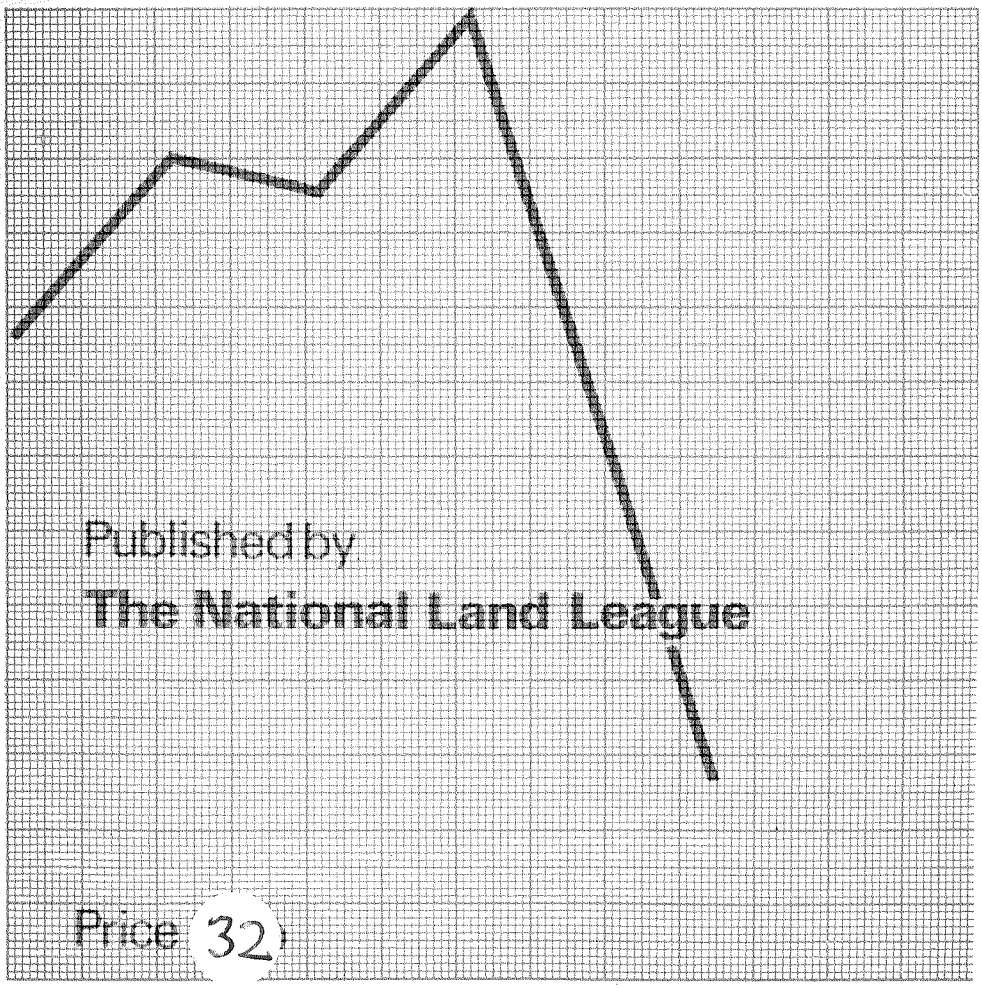
# The Cattle Crisis and the Small Farmer

by Raymond Crotty, M.Sc. (Econ.)



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# FOREWORD

The National Land League, deeply concerned over the collapse in prices for young cattle, about the prospect of large numbers of young cattle starving to death during the coming winter, and about the deep indebtedness of Irish small farmers, commissioned Raymond Crotty to study the nature and causes of the crisis in the cattle industry. The National Land League was particularly concerned that the crisis should be studied from the view of its impact on small farmers.

Raymond Crotty was required to present his report before the end of August, which was within a few months of commissioning. It was felt that whatever the report might lose from speed of compilation would be more than compensated for by timeliness. Had Raymond Crotty twelve instead of three months in which to prepare this report, it would probably be academically better. But however acadamically meritorious a report on the present crisis in the cattle industry might be in June, 1975, it would be no help to Irish small farmers in surviving the coming winter, which is now seen as likely to be one of the most difficult periods ever encountered by Irish small farmers.

The National Land League, in presenting this report to the small farmers of Ireland, is satisfied that it incorporates the results of many years study and experience by the author of the economics of cattle production in Ireland and in a score of other countries on four continents. We are proud to present the report as the most competent economic analysis of the Irish cattle industry which has ever been executed.

The National Land League, at the same time, is gravely perturbed by the report. We are perturbed by the incompetence and avarice in high places which the report shows clearly have been responsible for the present crisis. We are perturbed by the grave losses already suffered, and by the further, more grievous losses which the report shows are now imminently threatening Irish small farmers.

The purpose of this report is not merely— or even mainly— to explain what has happened, or to indicate what is likely to happen in the future. Raymond Crotty was especially directed to identify and to evaluate measures to alleviate present and future difficulties for Irish small farmers arising from the cattle crisis. The two final chapters of the report deal with a number of measures which, I believe, would substantially lessen or alleviate the harm done to Irish small farmers.

DAN McCARTHY,
President,
National Land League.

Mullingar,
21st August, 1974

# Summary and Conclusions of Report

## THE NATURE OF THE CRISIS

1– The present crisis in the cattle industry is a crisis for small farmers. Having been urged to expand cattle output, they now find that they cannot sell their greatly increased numbers of young cattle even at prices much less than half of last year's level. There is every likelihood that hundreds of thousands of young cattle belonging to small farmers will starve to death during the coming winter.

2– Meanwhile the margins which large farmers get from fattening the young cattle produced by small farmers have never been so high. Large farmers are now receiving almost as much for their fat cattle as they did a year ago, while they are paying small farmers much less than half as much for young cattle to fatten.

3– The plight of small farmers is made much graver by the great increase in their indebtedness to banks, the ACC and hire-purchase companies, which they were encouraged to incur in order to increase their output of young cattle. Because of the collapse in their incomes and the increase in their indebtedness, many small farmers are now virtually insolvent.

4– The problems confronting small farmers arose out of the greatly accelerated change which occurred in the cattle industry during the past decade, and especially during the past five years. Cattle numbers increased more during the past decade than during the preceding century. Cow numbers, which remained virtually unchanged for 140 years prior to 1960, have since almost doubled. Irish small farmers have been poorly advised and poorly serviced in adapting to rapidly changing circumstances. Twice within the decade young cattle prices have collapsed, in both cases for the same reasons.

5– The Calved Heifer Subsidy Scheme, introduced in 1963, caused a sudden acceleration in the rate of increase in cow numbers. This led to overstocking of grassland and, because of that, to a collapse in calf and young cattle prices in 1966 and 1967.

6– The cattle industry had recovered from that crisis by about 1970, but from then on it was subjected to increasingly powerful speculative forces. Small farmers were assured that on entry to the EEC prices would remain high and stable. They were encouraged to borrow heavily to increase their breeding herds. Cattle stocks, as a result, have been expanding since 1969 more than six times as rapidly as the growth in cattle-carrying capacity.

7– The excessively rapid increase in stock numbers was at first sustained by using up various fodder reserves. These have now been exhausted and the cattle industry faces the coming winter with 7½ million cattle but fodder supplies adequate for only 5 million head.

## THE RESPONSIBLE PARTIES

8– Primary responsibility for the present disaster rests on the two main farming organisations and on the banking system. Agricultural developments since 1968 have been largely dictated by the two main farming organisations. These developments have been consistently beneficial to the large farmers who control the two main farming organisations. They have obtained, through the EEC beef intervention system, high guaranteed prices for the fat cattle which large farmers produce. The expansion of young cattle supplies six times more rapidly than the demand for these has provided the large farmer buyers of these with an abundant supply at prices lower than at any time during the past decade.

9– The increase in farm indebtedness to banks and the ACC from £123 millions in 1972 to £230 millions in 1974 has been the main factor in enabling the banks to double their profits, from £20 millions to £40 millions in that time. It has also raised the corporate status of the ACC and brought higher salaries and perquisites to its senior executives.

10– The increased indebtedness of small farmers, as well as leading to the collapse in young cattle prices, has also brought about a 4% drop in milk production from over-stocked pastures and has caused crop production to decline by 10%.

11– The occurrence within a decade of a second, and much graver, crisis in the country's main industry, cattle, owes much to government policy over the past five years. The Department of Finance was remiss in not perceiving the consequences of an annual 6% build-up in cattle numbers, while the underlying capacity to carry cattle was increasing at 1% or less annually. It was remiss also in failing to ensure that the Central Bank fulfilled its responsibility of requiring the commercial banks, the ACC and the hire-purchase companies to use their credit-creating powers in a manner consistent with the welfare of Irish small farmers and of Irish society as a whole.

12– The Department of Agriculture and Fisheries has consistently followed policies which have been highly inimical to the interests of the small farmer producers of young cattle. Despite the clear lesson of the 1966/67 crisis, brought about by the over-rapid increase in cattle numbers, the Department energetically pursued policies which, for five years, have headed towards the present collapse in the cattle industry. It encouraged an annual 6% increase in the production of young cattle while simultaneously taking steps which, indirectly or directly, depressed the demand for these young cattle.

13– The EEC beef intervention system, operated by the Department of Agriculture and Fisheries, has depressed the demand for young cattle in a number of ways. Large farmers, having a guaranteed high price for their fat cattle, need no longer hasten to sell these for fear of a break in prices. Because intervention applies only to beef, and not to forward stores, large farmers keep their cattle longer than formally to get them into beef condition. Finally, the recently announced scheme of the Department of Agriculture and Fisheries, of paying a subsidy to large farmers on cattle slaughtered,

rising from £9 per head in August to £32 per head in February, which will cost Irish taxpayers £6 millions, encourages large farmers to retain fat cattle which would otherwise be sold off. All of these measures have resulted in a sharp decline in off-farm sales of cattle since Ireland joined the EEC, notwithstanding much larger cattle stocks. Off-farm sales of prime cattle in the first seven months of 1974 were 68 per 1,000 head of cattle stocks compared to 89 per 1,000 head in the first seven months of 1972.

14– The Department of Agriculture and Fisheries prohibited small farmers from exporting their young cattle prior to Ireland's entry to the EEC in February, 1973. It has since then, until recently, harassed and impeded these exports by administrative measures. The Minister for Agriculture and Fisheries, a year ago, sought and obtained from the EEC permission to impose a higher levy on exports of Irish young cattle, with the proceeds of this levy being paid to EEC funds.

15– The Department of Agriculture and Fisheries, by simultaneously pursuing policies which caused the supply of young cattle to increase by 6% annually and policies which depressed the demand for these young cattle, made inevitable the present collapse in young cattle prices. Because that collapse has been postponed by an enormous increase in bank, ACC and hire-purchase credit, it will now be more severe and protracted.

16– Bord Bainne, the Livestock and Meat Board (CBF), the Agricultural Institute, the Economic and Social Research Institute and the Universities– all in various ways failed in their responsibilities to Irish small farmers and in doing so contributed to the present crisis.

## ALLEVIATING THE CRISIS AND PREVENTING A REOCCURRENCE

17– The blunders in the cattle industry of the past five years have cost the country some £400 millions. These are losses which must be borne, mainly by small farmers in the form of lower prices for their produce and lower incomes; by other producers in the form of higher costs and less employment; by consumers in the form of higher prices; and by the public at large in the form of higher taxes. But there are steps which will alleviate the disaster, and other steps which can help to prevent a reoccurrence.

18– The inadequacy of fodder supplies can be alleviated by using those available to store, or to keep alive, a larger number of cattle through the winter instead of fattening a smaller number. This can be made economically attractive to individual farmers by measures to lower the spring price of fat cattle relative to the autumn price– as will in any case obtain as Ireland becomes more closely integrated into the common market. These measures include :

(i) payment of slaughter premia up to October and none after that;
(ii) liberalisation of EEC beef imports from November onwards;
(iii) suspension of the beef intervention system next spring;
(iv) release of beef stocks on the market next spring.

19– These measures, as well as making storing cattle more attractive than fattening them next winter, would also encourage the immediate sale of cattle fit for slaughter. Domestic demand for young cattle would be improved on both counts.

20– Large, and potentially very lucrative foreign markets are known to exist for Irish calves, young cattle, maiden heifers, young suckling cows, ewes, store lambs, and Irish-draft-type mares. It has been government policy in the past to prohibit or to discourage such exports. If losses of cattle and sheep from starvation are to be contained next winter, government policy on this matter must be changed and positive support given to developing exports of these cattle, sheep and horses. The public resources at present going to the Livestock and Meat Board (CBF) could be used productively for this purpose.

21– The increase in small farmers' indebtedness in recent years was an abuse of power by the banks, the ACC and the hire-purchase companies. If these debts, which are inequitable and amoral, are found to be lawful, small farmers should press to have the law on the matter altered.

22– The welfare of small farmers will be in jeopardy for as long as they rely on organisations controlled by large farmers to represent them. Small farmers can lessen the danger of a reoccurrence of disasters similar to the present by ceasing to be members of, and by withdrawing financial aid from, organisations dominated by large farmers and used to advance the interests of large farmers to the detriment of small farmers.

23– Small farmers, through their own small-farmer organisations, should seek to redress the imbalance against small farmers which exists across a wide spectrum of Irish public life. They should insist on having small farmers, or the nominees of small farmers, to represent them on State and semi-State bodies.

24– Ignorance of agricultural matters among economists and of economic matters among agriculturists contributed to the present disaster. It is important in an Irish context that young people with a farming background should be encouraged to train as economists. Also, appropriately designed courses in farm business management, which would include some economics, should be made available to Irish small farmers, especially those likely to be leaders of small farmers' organisations, or to represent small farmers on public bodies.

25– It is possible to provide accurate forecasts at moderate cost of key variables in the Irish cattle economy. The publication of such forecasts, which is regularly done by other governments, would have ruled out the great losses now befalling Irish small farmers. Work of a similar nature would have saved much wasted investment in milk-processing, which is likely to give rise to serious financial problems in the dairy industry in the coming years.

26– The present disastrous situation for small farmers could not have occurred had the Central Bank fulfilled its duties competently. Further serious abuses of power by the commercial banks and other credit-creating agencies are likely to occur unless the present Board of Directors of the Central Bank are replaced by persons who merit the confidence of small farmers and of the public.

27– Eternal scepticism is the price of survival for small farmers. They became credulous in recent years, and are now paying dearly for their credulity. If losses such as the present are to be avoided in future, small farmers must regain their traditional, well-justified scepticism and trust others to the extent only that they can critically and sceptically oversee them.

CHAPTER 1

# The Losses of Irish Small Farmers

Irish small farmers have suffered a series of disastrous set-backs during the past two years. Prices of young cattle, on which small farmers mainly depend, were £25 per cwt a year ago, but are now down to less than half that amount. Farmer indebtedness to the banks and the Agricultural Credit Corporation has increased from £123 million in 1972 to £230 million now and a large part of this increase is borne by small farmers. All and more of the expected decline in agricultural incomes in 1974 has been suffered by small farmers. Large farmers, who have been buying young cattle from small farmers at less than half what they cost a year ago, are selling these cattle fat at prices very little below last year's level.

A tremendous redistribution of wealth and income has occurred within agriculture during the past year or so. Small farmers have been impoverished by a collapse in their income and the value of their assets; by a doubling of their indebtedness; and by soaring production costs. Incomes of large farmers have increased because the cost of their main input, the young cattle produced by small farmers, has more than halved while the value of the fat cattle they produce has barely declined. An economic crises exists within the agricultural sector, but it is confined to the small farmer sub-sector.

Existing policies point to a continued deterioration in conditions for small farmers. The prospect of a fodder famine and mass starvation of young cattle and breeding stock becomes more imminent as winter approaches. Allowing for the exhaustion last spring of normal reserves of hay and silage, for the much barer condition of pastures throughout the 1974 grazing season, and for the larger stocks of cattle to be carried through the 1974–75 winter, production of hay and/or silage would need to have increased by 20% in 1974 to maintain the same ratio between cattle stocks and fodder supplies as existed in the 1973–74 winter.

Present indications are that hay/silage production in 1974 will at best be 80% of 1973 production. This implies that, relative to cattle numbers, fodder supplies will be one-third less in the coming winter than in the last one. Bearing in mind that large numbers of young cattle and breeding stock perished through starvation in the 1973–74 winter, it seems virtually certain that, unless vigorous counter action is taken, ten, and possibly hundreds, of thousands of young cattle will starve to death in Ireland during the 1974–75 winter.

The advice of the Department of Agriculture and Fisheries is unhelpful in this context: "Forewarned is forearmed. Every farmer should make sure he has enough winter feed for the number and type of stock he intends to carry over next winter. No farmer can afford a repetition of last winter's fodder shortage." *Farm Bulletin, May 1974.* Few farmers are foolhardy enough to wish to carry through the winter more cattle than can be maintained by their fodder supplies. The problem facing farmers is to

dispose of those cattle– amounting to approximately one-third of the national herd– which are surplus to the number which can, even with difficulty and risk, be carried through the winter. As farmers during the coming months attempt to adjust downwards their cattle stocks to the numbers they can carry through next winter, prices of young cattle will continue to decline. Incomes of small farmers which derive from the sale of these young cattle will contract in line; the value of small farmer assets will continue to drop; while their indebtedness to banks and to the Agricultural Credit Corporation will increase as unpaid interest is added to the existing debt. The net worth of many small farmers will be eroded to the point where in other industries, where the capacity to suffer and to survive is less well developed, widespread bankruptcies would occur.

The deepening crisis in the small farmer sub-sector will have prolonged, grave effects throughout the agricultural sector and in dependent industries. Farmers who are likely to get less for weanling cattle this autumn than they would have received for the same animals as calves in the spring, and farmers who will get lower prices for their calves next spring than they have received at any time since the depression of the 1930's, may be expected to reduce sharply cow numbers in 1975 and again in 1976. This reduction in cow numbers, affecting both suckling and milking cows, will almost certainly result in further declines in the production of milk for manufacture. Manufactured milk production, which at the beginning of 1974 was predicted by Bord Bainne to increase from 600 million gallons in 1973 to 1000 million gallons in 1980, has in fact decreased in 1974 by some 4% as a result of over-stocking of pastures. Production declines in 1975 and 1976 will occur as a result of a reduction in cow numbers caused by the collapse in calf prices.

Ambitious expansion programmes have been undertaken by several large creamery groups. The financial success of these programmes depends on the creameries getting rapidly expanding supplies of milk to utilise the additional plant capacity. A decline in milk supplies through three successive seasons, 1974/1976, will cause serious losses to these creameries and is likely to result in the bankruptcy of some major Irish milk-processing firms.

Plunging prices for young cattle and declining cow numbers will not continue indefinitely. Irish agricultural statistics stretching back over 130 years, record cycle after cycle of low calf and young cattle prices followed by a reduction in cow numbers; followed in turn by an increase in calf and young cattle prices; followed again by an increase in cow numbers; followed by a reduction in calf and young cattle prices; and so on. The difference between the present cycle and earlier ones is its severity. Never in the history of the Irish cattle industry have prices of calves and young cattle plunged so steeply in so short a time. Cow numbers during the next couple of years will decline far more than they ever have before during a similar period.

Calves and young cattle prices may be expected in due course to rebound in response to declining numbers, with the cycle continuing as before, except that now the cycle will have a much greater amplitude. A result of the present crises is likely to be that a cattle cycle, which was scarcely perceptable in the past, will become a source of acute instability and loss in the industry for decades to come.

Such then is the nature of the crisis affecting the cattle industry. It is a crisis which at present is confined to the small farmer sub-sector but will in time and with increasing severity spread to all parts of the agricultural sector and to dependent industries and the economy as a whole.

CHAPTER 2

# Change in the Irish Cattle Industry – Long Term

## THE REPLACEMENT OF PEOPLE BY CATTLE

The history of the Irish cattle industry and, to a large extent, of the Irish people from the beginning of the 19th century, is largely a history of the struggle between cattle and people for the possession of land. Cattle, during the first quarter of the 19th century, were on the defensive; numbers were probably declining, while the human population and crop production expanded. The human population was thrown on the defensive as the cattle population grew rapidly during the second quarter of the century. The rural population was at first stabilised and then reduced by a combination of increased death and emigration rates and a decreased birth rate between 1825 and 1850. The process of cattle substituting for people in the countryside continued at a more moderate pace through the second half of the 19th century and the first half of the 20th. The pace of substitution has accelerated during the past two decades and expecially since 1963.

Two long term changes in demand and supply conditions underlie the remarkable substitution of people by cattle on Irish farms. One of these has been a change in demand for Irish agricultural products; the other has been a change in the supple of agricultural labour in Ireland.

Demand for labour-extensive cattle has grown relative to the demand for labour-intensive tillage products in Ireland since the passing of the Irish Currency Act of 1826. This change in demand has proceeded for 150 years consistently, with one brief but revealing aberration in the 1930's.

The average price of wheat in Ireland in 1806–1810 was 212 (old) pence per cwt. The average price of beef in the same years was 422 pence per cwt, or slightly less than twice the price of wheat. The average price expected by Irish farmers for wheat in 1974 is £2.00 per cwt. Good quality cattle have recently been making 29 pence per lb. carcase weight, or £32.50 per cwt. There has, therefore, been an eightfold increase in the price of cattle relative to the price of wheat in the intervening years.

This eightfold increase in the price of labour-extensive cattle relative to the price of labour-intensive grain has implied a decline in the demand for labour in Irish farming. This decline in demand for farm-labour pressed the rewards to this labour below the subsistence level in the second quarter of the 19th century and many starved to death. The relatively poor demand for farm labour in Ireland has kept agricultural wage rates chronically low since 1850.

The virtually continuous decline in demand for farm labour has coincided, since around 1850, with an almost continuing rise in the supply price for this labour. As the

channels of emigration widened, deepened and smoothened, the standard of life acceptable to landless Irish agriculturists rose.

These two trends reinforced one another. As cattle prices rose, crop production became less profitable; the occupiers of land switched more to cattle and employed less labour, either family or hired, and caused more people to emigrate. As emigration proceeded and acceptable rates of reward to labour rose, labour-intensive tillage was replaced by labour-extensive cattle.

This process has proceeded in Ireland at times more rapidly, at times more slowly, for almost 150 years, with but one brief, revealing aberration. From 1930 to 1935 emigration from Ireland ceased; the agricultural work force increased; cattle prices declined relative to crop prices; and the Irish economy expanded more rapidly than that of most other European and north American countries.

## CONSTANT COW NUMBERS

The manner in which the Irish cattle industry expanded favoured an increase in beef cattle production rather than dairying, although rapid dairy expansion was occuring contemporaneously in other countries. Cattle expansion occurred in Ireland at the expense of a contraction in tillage. In other countries, cattle numbers and crop production expanded simultaneously. As crop production and milk production are, to a large extent, complementary, the increase in crop production in other countries favoured an expansion in milk production also; the decrease in crop production in Ireland militated against an expansion in milk output.

Crop by-products provide an abundance of winter-feed for cows, and the labour used to grow crops is available also to milk cows. The decline in tillage in Ireland from the 1830's onwards increased the supply of grass during the growing season but lowered the supply of fodder during the dormant winters. The highly seasonal pattern of fodder supply in Ireland was accentuated, with "a feast" of grass during the summer alternating with a fodder famine during the winter and spring. Bullocks reared for beef can, for basic biological reasons, cope better than cows with these "feast and famine" conditions which, for long were the distinctive characteristic of the Irish cattle industry.

The labour requirements of dairying, though low relative to those of crop production, are many times greater than those of beef production. They are peaked, with all of the labour required for brief milking periods at the beginning and end of each day. If crops are grown, this labour can be used productively throughout the day. But with few or no crops, as became increasingly characteristic of Irish farms, productive employment could not be found between requirements of dairy farming. It was sensible, under these conditions, to use otherwise idle, between-peak labour for such purposes as transporting small quantities of milk long distances to creameries. It was also sensible to increase numbers of dry cattle rather than cows.

To recapitulate; rising prices of grassland products relative to tillage products combined, after the Great Famine, with rising costs of labour and favoured a switch from tillage to grass. Declining supplies of crop by-products for winter feed and declining opportunities to employ increasingly costly farm labour between milking peaks made it profitable in Ireland to expand beef production rather than milk production, as was

occuring contemporaneously in many other countries. An abundant calf supply facilitated the expansion in beef cattle production.

Most calves were allowed to perish or were slaughtered for their hides previous to 1820, when the increase in cattle numbers commenced. This position had not changed materially by 1861; only about half the annual calf crop was reared and the remainder were allowed to perish. The position had, however, changed by the end of the 19th century; all of the calf crop was required; none was deliberately allowed to die. Calves became valuable and, because they were valuable, mortality rates dropped.

## THE ROLE OF CALF VALUES

The period from the end of the 19th century to around 1960 was, by and large, a stable one, especially by contrast with earlier and later periods. The rapid decline in tillage and the rapid expansion in cattle numbers which characterised the second half of the 19th century slowed down very much in the first half of the 20th. There were sharp changes within the period, especially during the two world wars and during the "economic war" of the 1930's. But these were aberrations, due to particular causes and when these causes were removed, old patterns and old trends, established at the beginning of the century, were reasserted. A network of product-product, factor-factor and product-factor relationships, analysed more fully elsewhere,* held Irish agriculture in long-term equilibrium during that period. A key element of that network of relationships is important for present purposes and needs to be considered in some detail. That is the price of calves.

Table 8 shows the values of calves and of 2 year old fat cattle from 1914 to date. There was no pronounced trend in calf prices relative to fat cattle prices until the 1960's. Annual average calf prices then rose rapidly from 20.80% of the current value of fat cattle in 1960 to a peak of 28.25% in 1965.

The price of calves represents an income to cow-keeping and a cost to the directly competing farm enterprise, cattle-rearing-and-fattening. It therefore plays a crucial role in determining the relative porfitability of these enterprises. Denoting :

Yd : the income from keeping a dairy cow for a year;
Yb : the income from rearing a calf to the mature bullock stage;
Pc : the value of a calf at birth;
Mk : the value of milk produced by a cow in a year;
Pm : the value of a mature bullock;

The relative incomes from the two closely competing enterprises, cows and bullocks is:

$$\frac{Yd}{Yb} = \frac{Mk + Pc}{Pm - Pc}$$

Calf prices have been observed to vary from 5% to 40% of the current price of mature bullocks during the past ten years. The effect of such a change in calf prices on the relative profitability of cows and bullocks may be seen by reference to the present

* R. D. Crotty, **Irish Agricultural Production: Its Volume and Structure.** (C.U.P. 1967), PP. 84–88.

price of mature bullocks (approx. £180) and the present value of a cow's annual milk output (approx. £120).

**Case 1:** Pc = 5% of Pm

$$\frac{Yd}{Yb} = \frac{120 + 9}{180 - 9} = 0.754$$

**Case 2 :** Pc = 40% of Pm

$$\frac{Yd}{Yb} = \frac{120 + 72}{180 - 72} = 1.778$$

An increase in calf prices from 5% to 40% of current bullock prices, at present relative milk and beef prices, more than doubles the returns from cows relative to returns from competing bullocks. A decline in calf prices from 40% to 5% of current fat cattle prices, on the other hand, halves the returns from cows relative to the returns from competing bullocks.

Calf prices acquired a powerful equilibriating role in Irish agriculture once calves became scarce and acquired value. Calves acquired substantial value at the turn of the century when, practically speaking, the entire calf crop was reared. Further expansion of cattle numbers from then on was hampered by the bottleneck of rising calf costs. A rise in the price of calves simultaneously reduced the income from dry cattle and increased that from cows. The incentive to change was thus, on both accounts, lessened. If cow numbers tended to increase, calf prices dropped and, again, incomes from the two enterprises were restored to equilibrium one with another. This equilibriating process can readily be observed, through the data of the period, operating between 1900 and 1960.

The price of calves also helped to stabilise the grassland/tillage acreages. A reduction in tillage with a corresponding increase in grassland created a demand for additional calves. This could only be achieved by expanding cow numbers. Cows, as already noted, being complementary with tillage, could not be readily increased while the tillage acreage declined. As long as this relationship existed, the fact that cow numbers could not be readily increased as tillage declined in itself helped to stabilise the tillage acreage.

The easy path of expanding cattle numbers simply by rearing more of the calves that were born each year could no longer be resorted to once, effectively, the total calf crop was being reared. A discontinuity was introduced into the system; further expansion in cattle production could not occur until pressures for change built up sufficiently to surmount the discontinuity caused by the shortage of calves. That occured during the 1960's.

CHAPTER 3

# Recent Developments in the Irish Cattle Industry

## THE PAST DECADE

Irish cattle numbers increased by almost 50% in the decade 1963–1973. This was a remarkable increase by virtually any standard.

Cattle numbers increased much more rapidly in Ireland than in any other major cattle-producing country during the 1960's. European cattle numbers increased by 18% and world cattle numbers increased by 10% during the 1960's.

The increase in cattle numbers between 1963 and 1973 was six times as great as the increase in the decade 1952–1961. It was greater than the increase in cattle numbers during the preceding century, *Table 1.*

The increase in cow numbers in Ireland during the decade 1963–1973 has been even more remarkable. Cow numbers in Ireland increased by 60% in 1963–73, whereas they had remained virtually static during the preceding 140 years.

The contrast between the expansion in cow numbers in Ireland in the decade 1963–73 and the experience of other countries also is striking. The numbers of cows in the other eight EEC countries declined slightly from 32,179,000 in 1966/67 to 31,994,000 in 1969/70. There was a rather larger decline in cow numbers in the USA during the same period, from 50,420,000 to 48,982,000. These are all countries where, until quite recently, cow numbers had been increasing fairly rapidly.

The Irish experience in relation to cow numbers has been remarkably different to that of other countries over the long term also. The number of cows in Ireland , as noted, remained virtually unchanged for more than a century prior to 1960, while in other west European and north American countries they were increasing rapidly. Cow numbers have increased dramatically in Ireland during the past decade whereas in the other countries, a fairly definite downward trend in cow numbers has become apparent. This trend has been most pronounced in the USA. Dairy cow numbers in the USA declined by half between 1950 and 1970 and are expected to halve again by the end of this century.

The composition of the national cow-herd changed during the decade, whereas previously it had been quite stable. The number of cows used for calf-rearing increased from 34% to 40% of the total cow herd. *Table 4.*

The increase in Grazing Livestock Units *(GLU)** has been less than the increase in

* One GLU is a cow or its equivalent. Other grazing animals are converted to GLU by the application of recognised coefficients.

cattle numbers, *Tables 1 and 2.* This was because of the continuing decline in numbers of horses and sheep. Horse numbers have been declining since 1921. Sheep numbers have varied in cycles over the past 100 years, but have declined since 1963.

The increase in grassland stocking density, *Table 3,* has been less than the increase in GLUs. This has been due to a continuing decline in the tillage area, with a corresponding increase in grassland. Nevertheless, the density of grassland stocking increased by as much in the decade 1963–73 as in the preceding century.

The very rapid increase in cattle numbers was associated with an acceleration in the rate of decline in the agricultural work force. The agricultural working population declined by 3% annually between 1963 and 1973, which was slightly more rapidly than in the decade 1951–1961 and more than three times as rapidly as in 1926–1951, *Table 5.*

### 1963–68 and 1968–73

There were pronounced differences in the pace and pattern of change in cattle and cow numbers and in the composition of the cow herd in the two five-year periods, 1963–68 and 1968–73. All of the increase in cattle numbers and virtually all of the increase in cow numbers which occurred in the first five year period took place between 1963 and 1966. Total cattle numbers declined between 1966 and 1968. There was virtually no difference in the number of suckling cows in 1963 and in 1968; the large increase which had occurred between 1963 and 1965 was offset by a decrease from 1965 to 1968. Suckling cows declined as a proportion of the total herd between 1963 and 1968.

Cattle and cow numbers increased by almost twice as much in the second five-year period as in the first. Increases occurred in every one of the five years 1968–73; and, with the exception of total cattle numbers in 1971, rates of increase accelerated throughout the period. The rate of increase in total cattle numbers in 1973, at 8.4%, was four times as great as in 1969; while the 1973 increase in cow numbers, at 11.1%, was almost 4½ times as great as in 1968.

Dairy cow numbers declined between 1968 and 1971 and only recovered sharply in 1972 and 1973. Most of the increase in cow numbers between 1968 and 1973 was accounted for by suckling cows. Suckling cows increased from less than 30% to over 40% of the total herd between 1968 and 1972.

It has been noted that the density of grassland stocking increased as much in the decade 1963–1973 as in the preceding century. More than two-thirds of the decade's total increase occurred in the second half, between 1968 and 1973. During those five years of rapid growth in cattle stocks, stocking densities increased thirteen times as fast as during the preceding century.

CHAPTER 4

# The Causes of Change

## INTRODUCTION

Fifteen factors, or variables, account for virtually all of the observed change in the Irish cattle industry between 1963 and the present. The interplay of these variables caused cow and total cattle numbers to increase, or decrease, at varying rates. These variables account for the changes noted in the composition of the cow herd, and they account for most of the changes which occurred in the relative prices of cattle of different ages. The variables are listed in the technical appendix to this report, which shows how variation in one item affected the others.

It is sufficient for most purposes to know and to understand the principal changes which occurred during the past decade and the key relationships between the variables. These matters are the subject of the following pages. Readers wishing to omit the somewhat complex analyses involved should pass to p. 20, where a summary of, and the conclusions from, the analysis begins.

## CHANGE IN COW NUMBERS

There are three categories of cows: those producing milk for liquid consumption *Cl*; those producing milk for manufacture *Cd*; and those cows used for suckling one or more calves *Cs*. Cl, for practical purposes, may be regarded as constant at about 145,000. The big changes have occurred in Cd and Cs (i.e. in cows used for producing milk for manufacturing and those used for suckling).

Two groups of factors caused change in Cd and in Cs. These were, in both cases, (a) the relative returns from keeping cows for milking or suckling, and from the relevant competing enterprises; and (b) a trend over time to increase cow numbers which is itself an amalgam of factors, of which a number of important ones can be identified. The second of these factors, the time trend is discussed first.

**The time trend.** T: This embraces all those factors which, with the passage of time, favour cattle expansion. Included are: higher returns from grassland than from tillage, *Tables 6 A and D;* rising labour costs and a declining work force, *Tables 5 and 6 F*, which encourage the substitution of labour-extensive grass for labour-intensive tillage; a rising grassland-product/fertilizer price ratio, *Table 7,* which encourages heavier fertilizing and heavier stocking; the continued decline in horse numbers; and a rising cattle-milk/sheep price ratio which causes cattle to substitute for sheep, *Table 6H.* These are all factors which operated with exceptional intensity in the early 1960's and which, in one way or another, have made it attractive for farmers to increase the number of cattle. They represent a demand for cattle on Irish farms. To this extent,

they also make it attractive to increase cow numbers. They create a demand for cows.

Emphasis was placed in Chapter 2 on the shortage of winter feed and the rapidly declining farm work force as factors which, for over 100 years, discouraged an expansion in cow numbers in Ireland. It is believed – though this report advances no supporting statistical evidence– that a major technological change occurred in respect of these items during the decade 1963–1973.

The widespread introduction of mechanised silage-making coupled with self-feed silage installations, and of labour-saving machine-milking plants have been two notable technical developments in Irish farming in the 1960's. The former development has made it easier to level out feed supplies over the year even as tillage declines and fewer by-products of tillage are available to supplement a hay crop which, in an Irish climate, is always hazardous. The latter development has relaxed the labour supply constraint for milking, even under conditions of a rapidly declining farm work force.

The technological nature of these developments is such that they can be most readily adopted on large farms. Self-feed silage installations are only feasible for fairly substantial quantities of silage and where fairly substantial numbers of cattle are fed. Mechanised milking lay-outs are only beneficial for herds of about 20 cows and upwards.

The greatest scope for expanding cow numbers existed on the larger farms. The density of stocking with dairy cows on larger farms has hitherto been much less than on small farms, due to the shortage of winter-feed and of labour on such farms. Recent technological developments, therefore especially favour an expansion of dairy cow numbers on large farms.

These technological developments represent an increase in the relative attractiveness of cow-keeping on Irish farms. They, and the aggregate of factors noted above as representing an increase in the demand for cows on Irish farms, are combined into the single, composite variable, T. *A priori,* the effect of T on Cs is unlikely to be as great as on Cd. This is because the technological break-through of mechanised silage-making and milking which favours dairying has affected Cs less.

The combined effect of all these factors, subsumed under the term "time trend", has been to cause dairy cow numbers Cd, to tend to increase by about 35,000 annually and suckling cows Cs, by about 22,000 annually.

Relative returns: The actual change in cow numbers in any year has been determined by a combination of the time trend and the relative returns from cows and competing farm activities. The relative competing activity for dairy cows is the conversion of calves into fat bullocks; and that for suckling cows is the conversion of young cattle into fat bullocks. The returns from these activities and their relative values between 1962 and 1973 are given in Tables 9–14. Change in the relative returns of the competing activity in any year causes change in cow numbers in the following year. A 1% increase (or decrease) in the income from a dairy cow relative to that from converting a calf into a bullock gives rise in the following year to an increase (or decrease) of about 540 dairy cows. Every 1% increase (or decrease) in the income from suckling cows relative to that from fattening young stores gives rise in the following year to an increase (or decrease) of some 1,595 suckling cows.

## THE PRICE OF CALVES

The key role of calf prices has been noted (above p. 5). The manner in which calf prices affect the relative incomes from dairying and dry cattle is shown in Tables 9, 11 and 13. The price of calves is determined mainly, though not entirely, by current prices for young cattle. Monthly average calf prices have varied from a high 35% to a low 5% of the current values of 10½ cwt bullocks during the past 10 years. It normally ranges from about 20% to 40% of the current value of 6½ cwt bullocks. But this relationship also varies, mainly in response to change in the proportion of the total cow herd *Cw,* accounted for by suckling cows *Cs.* A 1% increase (or decrease) in the numbers of suckling cows relative to the total cow population causes calf prices to rise (or decline) by about 1.5% relative to young cattle prices. This is because the greater the number of suckling cows, the greater will be the demand for calves for multiple suckling, and so the higher calf prices tend to rise relative to young cattle prices.

## THE PRICE OF YOUNG CATTLE

This is the most crucial element in the entire Irish cattle economy. It largely determines the price of calves and thus indirectly the relative incomes from dairying and competing drystock farming. These in turn determine the future population of dairy cows.

The price of young cattle, which represent the main product of suckling cows, determine the relative profitability of suckling and fattening, *Table 10, 12 and 13.* That in turn determines the future population of suckling cows.

The main determinant of the price of young cattle is of course, the current price of mature cattle. But the relationship between prices per cwt of these two categories of cattle varies considerably. The price per cwt of 6½ cwt bullocks in April 1972, for example, was 121% of the price per cwt of 10½ cwt bullocks. The price per cwt of young cattle had dropped to the same level as fat cattle by December 1973. In mid 1974, it has declined to about 80% of the current price of fat cattle. It is the relative price per cwt of young and mature cattle which determines the relative profitability of cow keeping and cattle fattening and which in turn determines the future cow population.

Four factors determine the price of young cattle, *Pc,* relative to the price of mature cattle, *Pm.* These are :

(i) farmer expectations of future prices of mature cattle, or PPm.
(ii) acreage of grassland available per Grazing Livestock Unit, or S;
(iii) prices of grassland products– which are mainly beef and milk– relative to the cost of fertilizers, or GF;
(iv) the proportion of combined total non-government bank advances and ACC advances going to agriculture, or B.

PPm : If farmers expect that mature cattle prices in the future will be higher than current prices (i.e. if the predicted price of mature cattle, PPm, is greater than the current price, Pm) they tend to bid up the price of young cattle in anticipation of the higher price they expect to get for these cattle when mature. A reasonably "good fit" has been obtained for P Pm on the basis of certain assumptions.

S. : If the acreage of grassland relative to stock numbers in the country is high ( i.e. a low stocking density) farmers will be anxious to get more stock and bid up prices for

young cattle higher than they would otherwise be; and vice versa if the stocking density is high (i.e. S low).

GF : If grassland product prices are high relative to the cost of fertilizers, farmers are encouraged to manure more heavily. This increases the stock-carrying capacity of grassland and has the same effect as an increase in the acreage of grassland relative to stock numbers. (i.e. to an increase in S). It will tend to increase the demand and raise the price of young cattle.

B. : The ability of farmers to buy young cattle or to refrain from selling those they have is affected by current bank and ACC lending policy. If policy is to lend liberally to farmers, then their buying power will be increased and they will push up the price of young cattle. A liberal agricultural credit policy also implies that farmers who own small cattle will be under less pressure to sell and this again will cause young cattle prices to rise.

A tight agricultural credit policy will have the reverse effect. By reducing farmers' buying powers, it will lessen the demand for young cattle. Simultaneously the number of these coming on the market will be increased as farmers sell young cattle to get the cash they can no longer borrow and/or repay existing debt.

CHAPTER 5

# Operating the Model

## THE 1966 CRISIS

It is now possible to understand the main changes which occurred in the cattle industry during the past decade or so. The introduction in 1963 of the Calved Heifer Scheme caused a sharp increase in the returns from cows relative to drystock in 1964, when first payments were made under the scheme. Farmers anticipated the larger income from cows and increased cow numbers sharply in that year. The increase in cow numbers was much greater in 1965, being 10.5%.

The increase of some 16% in cow numbers between 1963 and 1965 placed the cattle economy in a vulnerable position. The acreage of grassland per GLU was reduced sharply, from 2.650 in 1963 to 2.451 in 1966. The cost of fertilizers tended to rise relative to cattle and milk prices, discouraging the use of fertilizers and so accentuating the relatively high stocking density. Bank credit, which had been expanding, began to contract. These conditions were exacerbated by a decline of some 5% in mature cattle prices. Young cattle prices however dropped more, by some 12%.

Suckling cow numbers reacted quickly to the declining relative returns from this activity. The lower returns were due partly to the lower prices of young cattle and partly to the petering out of the CHSS. Numbers of suckling cows declined in 1966, 1967 and 1968.

Because the number of suckling cows had already declined in 1966, calf prices dropped even more sharply than prices of mature or young cattle. Calves declined by £8, or 40%, compared to declines of 12% for young cattle and 5% for mature cattle. However, the price of milk continued buoyant and the income from dairy cows did not decline substantially relative to that from dry cattle until 1967. Even then, numbers of dairy cows did not decline until 1969 and 1970.

## THE 1973 CRISIS

The instability which had been introduced into the Irish cattle economy by the CHSS had worked itself out of the system by around 1968. There was some run down in cattle stocks, so that S, the acreage of grassland per GLU, had risen from 2.457 in 1966, when the crisis was most severe, to 2.581 in 1968. Mature cattle prices had recovered and farmers were once again adjusting to the prospect of rising cattle prices. The long run factors which are subsumed under "the time trend" had once again begun to cause cow numbers to increase, though all the increase was limited for the time being to suckling cows.

The dairy herd had not by 1968 recovered from the set back of collapsed calf prices in 1966 and 1967 and from the petering out of the CHSS. The introduction of the tiered system of milk prices, which operated in 1969, 1970 and 1971 also contributed to a relative depression of dairying incomes on large farms in these years, so that, notwithstanding the long-run factors which caused dairy cow numbers to tend to increase by 35,000 annually, numbers declined slightly in 1969 and 1970.

The introduction of the Beef Incentive Scheme in 1969 again greatly increased the income from suckling cows relative to that from fattening cattle. As happened five years earlier, when the CHSS was introduced, numbers of suckling cows immediately commenced to increase rapidly. Calf prices also commenced to rise, as farmers with suckling cows bought more calves for multiple suckling.

Cattle stocks began to increase again quite rapidly and by 1970, S, the acreage of grassland per GLU, was well below the level of 1966, when the last crisis occurred in the industry. Young cattle prices, *Ps*, however, remained quite firm in 1970 and later years.

Three of the four independent variables contributed to the firmness of young cattle prices, *Ps*, in 1970 and subsequent years. These were GF, PPm and B. Beef and milk prices rose once more relative to fertilizer costs, encouraging farmers to use more fertilizers, thus partly offsetting the increased stocking density, or the decline in S. 1970 was the fourth consecutive year of rising prices for mature cattle and farmer confidence that prices would continue to rise was strengthened. Also in 1970, the banks and the ACC commenced once more to expand credit to agriculture relative to total bank plus ACC advances.

Cow numbers increased by over 10% between 1970 and 1972 and total cattle numbers by 8%. Grassland acreage per GLU had declined by 1972 to 2.194, compared to 2.451 in the crisis year of 1966. But despite the large numbers of cows and the high stocking density, prices of young cattle relative to prices of mature cattle rose to a record high level in 1972.

The extreme buoyancy of young cattle prices relative to mature cattle prices in 1972 continued to be due to the same three factors. First, soaring beef and milk prices raised the grassland product/fertilizer price ratio GF and made it profitable to fertilize grassland more heavily, thus partially offsetting the much heavier stocking density.

Second, mature cattle prices rose more in 1972 than in any previous recorded years. 1972 was the sixth successive year of unbroken cattle price rises, a phenomenon which had only occurred once before, from 1915 to 1920. 1972 was also the year in which Ireland voted overwhelmingly in favour of EEC membership, a principal benefit of which had been presented as guaranteed high, stable cattle prices. Farmers were clearly anticipating much of the promised rise in cattle prices by bidding up young store cattle prices to extremely high levels, notwithstanding heavily stocked grassland. A highly speculative situation had arisen. Farmers had accepted what they had been told on every hand : that the days of "boom and bust" were past and gone; that cattle prices henceforth would go one way only– up; that conditions in 1972, when Ireland had not yet joined the EEC, were only the prelude to the much greater prosperity which would be enjoyed as members of "the rich man's club" of the EEC. Believing what they had been told, farmers held on to, or bought, young cattle at prices which could

be justified only by continuing rapidly rising prices.

The third factor causing young cattle prices to rise so highly in 1972 was the rapid expansion in credit. The steep speculative rise in young cattle prices could not have occurred without the consent and assistance of the banking system. These were given readily, in large measures. Bank and ACC advances to agriculture more than doubled between early 1970 and early 1973; they increased by £56 million, or over 45% in 1972 alone. That was the year when bank managers are reputed to have invited farmers to borrow money.

The very high price of young cattle and the large numbers of suckling cows relative to the total herd in 1972 ensured that calf prices also in that year were extremely high. There was too a major increase in milk prices in 1972. The combination of high milk prices and of high calf prices made the income from dairying relative to that from drystock farming, even at current high and rapidly rising beef prices, exceptionally attractive and introduced a new speculative element into the cattle industry.

Calf prices for years prior to 1972 had followed a fairly well established "pecking order". Hereford bull calves fetched the highest price; these were followed by Friesian bull calves; and these were in turn followed by Friesian heifer calves. Largely as a result of the growth of beef exports to the continent, where beef from Friesian bullocks was preferred, Hereford bull calves in 1972 commenced to sell at lower prices than Friesian bull calves. More significent, however, was the fact that Friesian heifer calves in 1972 became the market leaders, selling at higher prices than either the Friesian or Hereford bull calves.

Farmers were so eager in 1972 to expand dairy herds that they bid up heifer calf prices to extremely high levels. These very high prices for Friesian heifer calves, caused by farmers' eagerness to expand dairy herds, thus became themselves an important factor in making dairying so attractive, and increasing still further farmers' eagerness to expand herds.

This expansion occurred in 1973. There was a 10% increase in the number of dairy cows and a 14% increase in suckling cows to give an 11% overall increase. This 11% increase in the cow herd was the fifth and much the largest successive increase since 1968, when the cow herd was already at a record high level. It contributed to reducing in that year the grassland acreage per GLU to 2.077, or 0.384 acres per GLU less then in 1966, the last crisis year in the cattle industry.

## THE ONSET OF CRISIS

Recognition came slowly for the fact that early in 1973 a crisis had already developed in the Irish cattle industry. Entry to the EEC in February 1973 did not, and could not, bring the anticipated increase in beef prices. That was partly because, as a result of rising internal EEC beef prices in 1972, all barriers had already been removed on Irish beef and cattle exports to the EEC. The failure of the expected further rise in beef prices in Ireland to materialise was also due to the fact that a turn down in EEC beef prices occurred just as Ireland joined the EEC in February 1973.

EEC beef prices rose by some 25% in 1972. That rise was to a large extent due to the witholding of cattle stocks from the markets, as EEC live-stock owners, in common with commodity producers throughout the world in 1972, chose to increase stocks

rather than cash assets.

But there is a crucial difference between the retention of livestock by farmers and the stockpiling of other commodities. Most commodities are inert; stocks witheld from the markets one year when released at a later date will normally have diminished somewhat through wastage in store. Livestock, however, gain weight or breed. If cattle are withheld from the market this year, they must arrive there next year at a higher weight; or over a number of years in the form of the progeny of cattle retained for breeding. The increase in cattle stocks and the reduction in supplies of EEC cattle arriving on the market which caused EEC cattle prices to rise by some 25% between January 1972 and January 1973 was, therefore, of an inherently transitory character.

The 25% increase in EEC cattle prices was geared up to a 56% increase in Irish cattle prices over the same period by factors which again were of an inherently transitory character. Irish cattle in 1972 got the benefit of freer access to the EEC market where prices were rising by 25%. This freer access resulted from the elimination of the EEC import levy and the halving of normal tariffs in that year in an attempt by the EEC authorities to hold the rise in beef prices to EEC consumers. Thus Irish prices could be expected to rise during 1972 by 25% plus the amount of the levy and tariff reductions.

But in 1972, Ireland was not yet a member of the EEC and therefore farmers got the benefit, in terms of higher export prices, of devaluation of the Irish currency vis-a-vis the EEC unit of account. The Irish punt, in line with the pound sterling, was devalued by 15% in 1972 and this caused cattle prices in Ireland to rise further.

Together these factors– the elimination of EEC levies and the halving of common external tariffs on cattle and beef, and the devaluation of the Irish punt– geared the EEC cattle price rise of 25% into a 56% rise in Irish cattle prices. But this upward gearing of Irish fat cattle prices was essentially "a once only" phenomenon. Whatever further price rises Irish fat cattle might get within the EEC, these could at best only be in line with general EEC price rises. With zero levies and half tariffs, as existed at the time of Ireland's access to the EEC, no further increase in cattle prices could be expected on that account. Instead, prices would, if anything decline after entry, as normal levies and tariffs were restored, and as occurred in September 1973.

The complex EEC system of Monetary Compensatory Levies was designed to ensure that farmers in countries which devalued their currency relative to the EEC unit of account would continue to get the same prices in their national currencies after the devaluation as before it. This ruled out any repetition, after January 1973, of the substantial increase to farmers in devalued Irish punts resulting from the currency devaluation of 1972.

Farmers and others in Ireland at time of entry to the EEC failed to realise what was quite clear from an examination of the data. That is, that at best Irish cattle prices had reached a plateau; and that it was more likely that they would decline rather than increase in the months ahead. Instead, when the expected increase in cattle prices did not materialise in the months following accession to the EEC in February 1973, farmers held on to their cattle in expectation of the higher prices they had been led to expect and which they had already discounted in the very high prices paid for store cattle in 1972. Cattle and beef exports in the first half of 1973 were one-third below

the 1972 level, although opening cattle stocks and cattle output were very much larger.

Reduced cattle sales, facilitated by the continued expansion of credit to agriculture, helped to maintain prices to the middle of 1973. But once cattle commenced to move in larger numbers, prices weakened considerably to the end of the year. This decline in cattle prices, which commenced within six months of Irish entry to the EEC, was the first such decline to have occurred in over six years. It marked the end of the speculative movement in prices and stocks which had gripped the cattle industry since 1970.

But the break in cattle prices came too late in 1973 materially to have altered rearing and breeding decisions in that year. Calf prices continued to be very high throughout the spring calving season due to the 14% increase in numbers of suckling cows in 1973. The price of milk increased one-third above its 1972 level. Incomes from dairying in 1973 therefore continued to be high relative to that from dry cattle and ensured a further increase in dairy cow numbers in 1974.

The price of young store cattle continued relatively high until the end of 1973 for a number of reasons. Farmers continued to expect further increases in fat cattle prices now that Ireland was within the EEC. Grassland product prices had risen sharply relative to fertilizer costs, raising GF and causing substantially more fertilizers to be used, which offset somewhat the very high density of grassland stocking. Above all, credit continued to be freely available to farmers until September 1973. That made it financially easier for farmers to hold on to mature cattle and thus postponed the break in prices until the autumn. The fact that fat cattle prices continued to be high (due largely to the continued ready availability of credit) and this availability of credit itself contributed to the continued buoyancy of young cattle prices until autumn 1973.

The continuance of high prices for young cattle until autumn 1973 appears to have caused farmers to maintain their cattle breeding stocks at a high and still increasing level. The number of cows and in-calf-heifers in December 1973 was 8% above the 1972 level, which was itself 12% above the 1971 level. Unless losses of breeding stock through malnutrition in spring 1974 were heavier than has been suspected so far, it is likely that numbers of suckling cows as well as dairy cows have increased again in 1974.

### 1974

Tillage has probably declined somewhat in 1974, causing a slight increase in grassland. The increase in grassland is likely to be much less than the increase in cattle stocks, so the acreage of grassland per GLU, $S$, is probably down from 2.077 in 1973 to around 2.000 in 1974.

Farmers are no longer confident that in buying young cattle they will be able to sell these at a future date at a higher price on a rising market for beef. On the contrary, there is now the prospect that by refraining from buying young cattle at the moment, these young cattle will be bought later at a lower price on a falling market.

A steep rise in the cost of fertilizers reduced the grassland product/fertilizer price ratio GF in 1974, after this had risen in every one of the five preceding years. This in turn reduced the profitability of applying fertilizers to the heavily stocked grassland.

The banks have commenced to tighten credit. Advances to farmers, which increased by 50% between February 1972 and February 1973, only increased by 18% during the following twelve months. More significently, while the proportion of the Associated Banks total non-government advances going to agriculture increased from 16.9% to 18.4% between February 1972 and February 1973, it declined to 18.2% in February 1974. This was the first such decline in the proportion of total non-government advances going to agriculture recorded since 1970.

All of these factors : farmers expectations on future prices of fat cattle *PPm*; the grassland stocking density *S*; the grassland product/fertilizer price ratio *GF*; and availability *B*; – all of these factors which together determine the price of young cattle relative to the price of fat cattle now, mid-1974, point firmly downward. As a result, a veritable revolution has occurred in the relationship between prices of cattle of different weight categories within the past year. Whereas a year ago young cattle of about 4 cwt sold at a price per cwt which was 50% above the current price of fat cattle, fat cattle prices per cwt are now more than 100% higher than the price per cwt of 4 cwt cattle.

Calf prices understandably dropped in line with young cattle prices in 1974. The drop in calf prices, however, was not as severe early in the season as might have been expected, probably because of an increase in the number of suckling cows *Cs*. Owners of suckling cows continued to buy calves for multiple suckling early in 1974, during the main calving season, and before the major drop in young cattle prices had occurred.

## OUTLOOK

The increased stocking density in 1974– i.e. the reduction in S from 2.481 in 1968 to 2.077 in 1973 and probably to around 2.000 in 1974– is of greater significance than might appear. The Irish cattle industry normally operates with a considerable margin of safety represented by substantial fodder reserves at the commencement of the grazing season; by an accumulation of grass on under-grazed pastures during the grazing season; and by the good condition of cattle at the close of the grazing season. These reserves have now been exhausted as a result of the high and rising stocking densities of recent years.

Because all hay and silage stocks were exhausted by the commencement of 1974 grazing season, the larger cattle herd was put to graze earlier than usual. Earlier grazing by a larger cattle herd has prevented the normal accumulation of grass on pastures, which have been grazed unusually bare throughout the season. Less than the normal acreage has been spared for meadowing or silage, or it was spared later than is usually the case. The result is that production of hay/silage is probably 20% less in 1974 than in 1973.

Irish cattle normally end the grazing season in good condition. It is possible– and normal under natural conditions – for cattle to loose some of this accumulated fat during the dormant winter season without suffering serious, permanent harm. Cattle, and especially young cattle, are likely to end the 1974 grazing season in unusually poor condition as a result of the overstocked condition of most pastures during the present grazing season. There is evidence of this over-stocking in the 4% decline in milk output notwithstanding a probable 5% increase in the number of dairy cows;

and in the reduced off-farm sales of cattle in 1974 notwithstanding much higher opening stocks than in 1971 and 1972. Cattle entering the dormant winter season in poor condition can tolerate less well poor standards of nutrition without suffering permanent or fatal injury.

Allowing for the exhaustion of hay/silage stocks last winter, the barer condition of pastures throughout the 1974 grazing season, and this year's larger cattle stocks, an output of some 20% more hay/silage would be needed in 1974 to maintain last winter's level of fodder supplies relative to cattle stocks. With hay/silage production some 20% less in 1974 than in 1973, fodder supplies relative to cattle stocks will in fact be about one-third down on the 1973/74 winter. Bearing in mind the cattle losses from malnutrition which occurred at the end of last year's comparatively mild winter and the poorer condition of cattle generally and of young cattle in particular at the end of the 1974 grazing season, much heavier losses, particularly of young cattle and old cows, seem unavoidable during the coming winter.

Anticipation of such losses, reflected in extremely high prices for hay, coupled with increasingly tight credit conditions, will induce farmers to dispose of more young cattle as winter approaches and will deter others from buying them. Continued and much worse depression of young cattle prices, until the approach of spring 1975 therefore seems inescapable.

A recovery in young cattle prices from very low levels will occur in spring 1975 but prices are likely to continue lower relative to fat cattle prices than has normally been the case in recent years. This will be because of farmers' less optimistic assesment of the future course of fat cattle prices, *PPm;* a continuing high level of stocking density, *S,* though this will be less than in 1974 and will be declining; a further decline in the grassland products/fertilizer price ratio *GF;* and continuing tightening of credit to agriculture *B.*

The collapse this year in young cattle prices and the less serious decline in calf prices will cause a sharp decrease in cow numbers in 1975. Suckling cow numbers in particular seem likely to drop back to, or below, their 1969 level. A decline of 36% in artificial inseminations of cows in the first quarter of 1974 is a preliminary indication of the sharp drop in cow numbers which is likely to occur in 1975.

Low prices for young cattle in spring 1975 and a much reduced demand for calves for suckling seem likely to result in further steep depression of calf prices in 1975, notwithstanding a reduced dairy herd. Calf prices even lower in 1975 than they have been in 1974 are likely to result in a further reduction in dairy cow numbers in 1976.

Dairy cow numbers may also be depressed by continuing rapid inflation, due in no small measure to the great increase in credit to agriculture which has caused output to decline rather than to increase. Inflation has a more seriously adverse on dairying, where costs are relatively high, than on dry cattle production, where costs are low. Milk processing costs in particular are likely to escalade as a result of high interest rates on loans for milk processing plant, which will remain greatly underutilised during the next three to four years. It seems likely, therefore, that milk production, which has already declined in 1974 will continue to do so in 1975 and 1976.

The 4% reduction in creamery milk production in 1974 occurred notwithstanding an increase of 5% in dairy cow numbers. Reduced production per cow has resulted from under-feeding cows during the 1973/74 winter, and heavier stocking of pastures which have been less well fertilised than in 1973. Inadequate fodder supplies during the coming winter will also depress milk yields in 1975; fertilizer prices will continue to be expensive and so discourage their use. Against these yield– depressing factors, downward adjustments in cattle stocks in 1975 and 1976 will reduce the density of stocking and help to maintain milk yield per cow. The predicted decline in milk production is therefore likely to be fairly slight; higher yield per cow will partly offset declining cow numbers. But if production is unlikely to drop very sharply, it is even less likely to rise between now and 1980 by anything like 10% annually, as has been assumed by many major milk-processers.

## SUMMARY AND CONCLUSIONS OF THE ANALYSIS

The traditional equilibriating mechanism of the Irish cattle industry, in which the price of calves played a key role was under a severe strain for a number of reasons in the early 1960's. Cow numbers, after remaining virtually static for 140 years, had commenced to increase before the introduction of CHSS in 1963.

The CHSS caused a sharp increase in cow numbers and in the supply of calves for three years. But the supply of calves outstripped the demand, as indicated by the grassland acreage per GLU,or S. This resulted in a collapse in calf and young cattle prices in 1966/67, which caused cow numbers to decline.

Continuously rising cattle prices from 1967 onwards restored confidence in the cattle industry. That and the Beef Incentive Scheme encouraged renewed growth in cow numbers at a fairly moderate pace until about 1970. The increase in cow numbers became more rapid from then onward, and speculative elements came increasingly into play. Farmers were assured repeatedly and categorically, as the EEC referendum approached, that the current prosperity and rising prices were but a foretaste of conditions in the EEC. Farmers were repeatedly assured that within the EEC "a brand new ball game" would obtain where the old relationships in Irish agriculture would cease to hold good. There were authoritative projections of a doubling within a decade of milk and beef output at rising prices. Credit was given to farmers, more or less on request, to enable them "to increase output".

There was a one-sided preoccupation with increasing the supply of young cattle, which, in the highly speculative circumstances of the time, were seen as the sole constraint on an otherwise limitless expansion of fat cattle and beef production. The highly differentiated and specialised character of the Irish cattle industry was ignored as was the consequent need for balanced growth within the industry. These matters were ignored although the data showed unmistakably that the industry from 1970 onwards was heading rapidly for a repetition of the 1966 crisis.

The increase in the stock-carrying capacity of Irish grassland has, over the long run, been much less than 1% per annum. There have been short run increases in annual productivity in excess of 1%, but these have been associated with particular circumstances, such as recovery from a low stocking level; or at times when the grassland product/fertilizer price ratio has been particularly favourable. Individual farmers achieve stocking densities far higher than the national average; but the corrolary of

this is that other farmers achieve stocking rates much lower than the national average. In the absence of weighty evidence of profound structural change taking place within the industry so as indeed to create "an entirely new ball game", it must prudently be assumed that grassland productivity continues, over the long run, to increase at 1% or less annually. Hence, any sustained increase in stocking density in excess of that (i.e. a 1% or greater annual decline in S) must properly give rise to concern that the supply of young cattle is outstripping demand. No such concern was felt, or publicly expressed, by those responsible for developments in the Irish cattle industry from 1968 onwards.

As the supply of young cattle increased prodigiously, no attempt was made either to control that growth of supply or to achieve an offsetting expansion in demand. On the contrary, policy restrained demand for young cattle, directly or indirectly. Exports of young cattle were prohibited, until entry to the EEC in February 1973 required the lifting of the export prohibition. Even then administrative measures were taken to delay and to harass exports of young cattle. The Minister for Agriculture and Fisheries travelled to Brusells in July 1973, on the eve of the collapse of young cattle prices, and obtained permission from the EEC to raise the levy payable to EEC funds on exports of young Irish cattle. Not until summer 1974 was there official recognition that there was an over-supply of young cattle and an indication given that, for the time being, their export would be tolerated.

Just as in relation to young cattle there was a completely one-sided approach— to expand their supply without regard for demand— so, in relation to demand: all attempts to expand demand were confined to fat cattle and beef without reference to demand for young cattle. The Livestock and Meat Board — *CBF,* with a government-provided annual budget of £500,000, seeks mainly to expand demand for Irish beef. Entry to the EEC was dictated largely by concern to secure markets for beef and fat cattle. (Markets for young cattle would have been quite secure if Ireland had remained outside the EEC).

Many of the measures which have been taken to expand, or to secure demand, for beef and fat cattle have had, and continue to have, a contrary effect on the demand for young cattle. The operations of the Livestock and Meat Board, aimed mainly at strengthening the demand for Irish beef, in so far as they have had any effect, encouraged the retention of cattle beyond the store stage at which they might otherwise be sold. In so doing these operations delay the off-farm sale of cattle and depress the demand for young replacement cattle.

The EEC beef intervention scheme places a floor under the losses which beef producers can suffer and thereby weakens one of the incentives to beef producers to sell fat cattle, which must then be replaced by young store cattle. This is the fear of losses from a decline in fat cattle prices. Producers are thus left with only one incentive to sell fat cattle— the prospect of making more money by selling and replacing them with young cattle. Especially in a situation where, as since mid-1973, young cattle prices have been declining, it is reasonable to delay selling fat cattle and replacing them with young cattle as these can probably be bought more cheaply at a later date.

The intervention system, as well as removing the fear of loss, also delays the offtake of cattle from Irish farms in that it applies only to beef. Thus to get the benefit of intervention, Irish farmers must retain their cattle until they are fat and fit for intervention-buying and until meat factories can get additional storage space in "the

beef mountain" for the slaughtered carcases. Exports of store cattle which are thus discouraged were only 152,000 head in the first seven months of 1974 compared to 274,000 head in the first seven months of 1972.

The pursuit of various adjustments in the intervention system, aimed at raising returns for fat cattle, such as the introduction of the "Green Pound" and the system of slaughter premia which rise from £9 per head of cattle slaughtered in August to £32 per head in February, similarly encourage the retention of cattle on farms. Intervention buying ensures that fat cattle prices will not decline, so farmers cannot loose by retaining cattle. They can, however, win by doing so if any of the proposed adjustments are adopted.

All of these measures aim at improving returns for beef producers: the Livestock and Meat Boards emphasis on promoting beef rather than store cattle; the elimination of the fear of loss by the EEC beef intervention system; the application of intervention buying to beef only; and efforts to secure adjustments in the intervention system favourable to beef producers. All of these measures make it more attractive for large farmers to retain cattle, and so reduce the demand for the young cattle produced by small farmers. Exports of prime cattle, alive and dead, were 861,000 in 1971; 893,000 in 1972; but down to 704,000 in 1973, the first year of EEC membership. Exports of prime cattle alive and dead in the first seven months of 1972 were 488,000 but were down to 434,000 in the first seven months of 1974. Per thousand head of opening cattle stocks, exports of prime cattle, live and dead, were 140 in 1971; 139 in 1972; and 101 in 1973. Exports per 1,000 head of opening stocks were 89 in the first seven months of 1972 but only 68 in the first seven months of 1974.

Two sets of directly conflicting policies were therefore followed with considerable energy in the years immediately preceding entry to the EEC and since entry. Supplies of young cattle were being expanded at an unprecedented rate, while simultaneously measures were being taken which, directly or indirectly, had the effect of reducing the demand for these young cattle. It was only a question of when, and by how much, prices of small cattle would collapse. The longer the collapse was delayed, by speculative anticipations of higher prices for fat cattle fueled by abundant credit, the greater would be the density of stocking at the time of collapse, and therefore the more severe the collapse would be.

The collapse came in 1973, seven years after the preceding collapse and for precisely the same reason— the supply of young cattle was expanded quite out of line with current demand. It is difficult to realise that the economy's main industry, cattle, could have got into a second, and much more severe crisis for the same reasons within a decade. That it did so was due to an almost incredible series of errors by all of the main parties involved. The nature and source of these errors are the subject of the next chapter.

CHAPTER 6

# The Responsible Parties

## INTRODUCTION

The concept of change at an accererating pace is commonplace in modern life. Yet even by modern standards of rapid change, the statistics quoted earlier make it clear that the decade 1963—1973 was, in a special sense, a period of great change and adjustment in the Irish cattle industry.

There is a plausible case for leaving such change, even in a major sector, to work itself out without central direction. If the State and other agencies adopted a neutral, or agnostic, attitude to such developments, market forces conceivably could, under a free enterprise system, evolve under the stimulus of the outside, or exogenous, factors, changing product prices and changing input costs. Such a process of adjustment implies highly decentralised decision-making by large numbers of imperfectly informed entrepreneurs. Although many of these decisions would be incorrect, on balance correct decisions would be expected to outweigh incorrect ones. The system would, more or less, shuffle in the correct direction.

Such a *laissez faire* approach might appear to be unduly pessimistic. It would imply man's inability to control his social environment and to achieve by conscious, social action, socially desirable ends. Enlightened central decision-making and action by government and other agencies responsible to the community as a whole would appear to have obvious advantages over the blind working-out of atomistic market forces.

There are however, two fundamental problems with such centralised decision-making. First, there is the standing risk that the decision-makers, though nominally responsible to society, will in fact take decisions favourable to themselves and detrimental to society's interests. Second, because of the great potential harm resulting from wrong decisions taken by a central authority. It is important that these decisions be well informed. A system of centralised decision-making, such as to an increasing extent is used in Ireland, therefore requires (a) a high degree of integrity on the part of the decision-makers, and (b) that they should be well informed.

There are elements in the Irish situation which make it more than usually unlikely that the central decision-makers will be well informed persons of integrity. Every other person born in Ireland during the past 150 years has emigrated permanently. *A priori,* the less contented half has left; the more contented, or more complacent half, has remained. The effect of this heavy, protracted draining away of discontent and protest is clearly evident in most aspects of Irish life. Politics are about people, not policies. The debate is not on what is to be done, but on who is to do it. Irish Governments change rarely, because Irish Oppositions oppose only; they do not offer alternatives.

Controversy, other than about who shall implement policies evolved by administrators, and not politicians, is rare in Ireland. Where other countries cherish controversy in public affairs as the vital element which tests assumptions, reveals flaws, and maintains standards, in Ireland controversy is frowned upon as contrary to the public well-being. Controversy in Ireland is "rocking the boat", not the leven that makes democracy work.

Public actions in Ireland, in the absence of – or at least with exceptionally little– controversy, are peculiarly likely to be ill-informed. Fallacies remain uncovered; assumptions remain untested; vested interested go unchallenged. There is less than usual concern for the public wellbeing.

Government expenditure in Ireland is equivalent to about 50% of national income. Agriculture accounts for 23% of national income. There are countries where government expenditure relative to national income is as high as, or higher than, in Ireland. There are other countries where agriculture accounts for as high, or a higher, proportion of national income as it does in Ireland. But apart from the communist bloc countries, there is no country where government expenditure is so high relative to national income and where agriculture contributes so high a proportion of national income as in Ireland. Many decisions in relation to agriculture are therefore likely to be centralised in Ireland, and, because of the relatively great importance of agriculture in the Irish economy, it is exceptionally important that these decisions be well based.

Centralised decision-making relies above all on an understanding of economics. This provides insights into the effects of decisions and price movements on entire sectors and on entire economies, where accounting provides similar insights into the effects of these on individual firms.

Economics is an urban-based discipline, and economists normally operate on the basis of assumptions proper to persons and firms living and operating under urban conditions. Few economists have agricultural backgrounds, such as would enable them to see the limitations implicit in orthodox economics as applied to agriculture. Because economists know little of agriculture, their advice to central decision-makers on agricultural matters is likely to be defective.

Agriculturists, on the other hand, rarely know much about economics. Their professional training is in agriculture, which is concerned with techniques of productions. Such subsequent education as they may receive in economics focuses mainly on the management and profitability of the individual farm firm. Sectoral or national considerations tend to be of secondary importance. Because agriculturists know little of economics, their advice to central decision-makers on economic matters is also likely to be defective.

Because economists know little about agriculture and because agriculturists know little about economics, the information and advice available to central decision-makers on matters pertaining to agriculture, in general, tend to be faulty. Because of the lack of controversy in Ireland, associated with the loss through emigration over 150 years of the less complacent half of the nation, the integrity of centralised decision-making and the quality of the information on which it is based are especially likely to be faulty. Because of the many decisions relating to Irish agriculture which are centralised, and because of the great importance of agriculture in the Irish economy, it is a matter of grave import to Irish society that these decisions are peculiarly liable to be partial and ill-informed.

This is the background which makes it possible to understand how, seven years after the last serious crisis in the cattle industry, the economy's main industry should, in 1973, for similar reasons have moved into a similar, though much graver, crisis. It is the background against which the actions and the responsibilities of the parties involved should be judged.

## DAIL EIREANN

A 34% increase in cow numbers could not have been achieved between 1967 and 1973 had one Dail Deputy recognised the implications for young cattle prices, incomes of small farmers and the stability of agriculture, and had he/she effectively evaluated the policies which were bringing about that increase. The issues were so clear cut, the dangers of such a rapid expansion of cow numbers so obvious in the light of the 1966–67 crisis, that any Deputy concerned for the prosperity of small farmers could scarcely have failed to notice them. That many concerned deputies did fail to see the crisis before it was upon the industry appears to be due to their committing the common error of assuming that what is good for agriculture's principal spokesmen must also be good for the majority of small farmers.

Large farmers, whose livelihood is derived from buying the young cattle produced by small farmers and fattening these, had every reason to be satisfied with the development of agricultural policy between 1966 and 1974. Evolving policy ensured for them prices for fat cattle which would not drop below a guaranteed, high level. It also offered the prospect of an accelerating increase in the supply of young cattle and declining costs of these. Those who regarded the wellbeing of Irish agriculture as synonymous with the wellbeing of large farmers had every reason to be satisfied with the progress of events and had no reason to complain. Deputies and others concerned primarily with the welfare of the agricultural sector as a whole and especially with the welfare of small farmers, failed to recognise the conflict between the interests of large farmers and of the agricultural sector as a whole. Deputies whose constituents are overwhelmingly small farmers, took their cue from the spokesmen in Dail Eireann of large farmers and allowed the crisis to develop and to break upon the industry without protest or attempt at prevention.

## GOVERNMENT

The present and the preceding governments bear the major responsibility for the cattle crisis. Within the Government, the Minister for Agriculture and Fisheries and the Minister for Finance are particularly responsible.

The Department of Agriculture and Fisheries encouraged in many ways the rapid expansion in the cattle breeding herd and failed to recognise the threat of this to prices of small cattle and to small farmers' incomes, notwithstanding the experience of the 1966 crisis. The Department has been committed to the rapid expansion of dairying, notwithstanding the lagging growth of demand for dairy products in developed economies. This commitment is based on an unjustified assumption that Ireland has a comparative advantage in milk production. Ireland has no such comparative advantage in milk production. The Irish dairy herd, at normal calf prices and within a common market, is more likely to contract than to expand from its present size.

The Department of Agriculture and Fisheries, through its nominees on the board of the ACC, was responsible in large measure for the expansion of credit to agriculture

that fueled the speculation which ended in the 1973 crash.

While doing everything possible to expand demand for beef and fat cattle, the Department first forbade and then hampered exports of young cattle, although the supply of these was expanding far more rapidly than domestic demand. The Department's doctrinaire preoccupation with processing cattle as far as possible prior to export, so as, in the crudest form of autarchism, "to obtain maximum value added", was responsible for this hostile attitude to exports of young cattle produced by small farmers. But the Department of Agriculture and Fisheries at the same time drew the line at impeding exports of fat cattle, which are produced mainly by large farmers, who are more vocal and politically influential than small farmers.

It is considered desirable to facilitate exports of fat cattle in order to maintain competition with the meat trade for fat cattle, although there is no evidence of a surplus of fat cattle arising. Such competition from an export trade was, however, deemed to be undesirable for the Irish cattle-fattening industry, although it has for long been obvious that a serious over-supply of young cattle was developing and leading to a worse crisis than that of 1966.

The Department of Agriculture and Fisheries managed little more than a symbolic "washing of hands" when the collapse in small cattle prices which it had done so much to provoke occurred. The Minister for Agriculture and Fisheries indicated that, while the crisis lasted, exports of young cattle would not be discouraged. No help has been offered to the trade, from the Livestock and Meat Board's budget or elsewhere. Those buyers and shippers who might engage in the trade have been given clear notice that a trade in young cattle is regarded by the Department as an unfortunate measure necessary to cope with a disastrous situation, which will be discouraged once more as soon as the crisis passes.

A campaign by the Department in June and July 1974 advising farmers of the need to increase fodder supplies could achieve nothing other than a defence for the Department against criticism when stock losses become embarrassingly great next winter. It is on a par with the advice given in its May *Bulletin* which appeared in mid-June : "Forewarned is forearmed. Every farmer should make sure that he has enough winter feed for the number and type of stock he intends to carry over next winter. No farmer can afford a repetition of last winter's fodder shortage".

The only initiative that could be taken in mid-summer to restore the balance between the demand and the supply of young cattle, between fodder supplies and cattle numbers which the Department's action had done so much to disrupt, was action in relation to cattle stocks and not fodder supplies. Action by the Department of Agriculture and Fisheries on this score has been entirely directed at increasing, rather than reducing, cattle stocks.

The Department is now operating a system of premia paid at increasing rates on cattle slaughtered from August to February. This system is aimed at reducing the number of autumn slaughtered cattle, so as to lessen the risk of a collapse in the intervention system, which would be embarrassing for the designers and operators of the system and might be costly for farmers with fat cattle to sell. It will do so, however, at a cost of some £6 million to Irish tax-payers and at the cost of retaining more fat cattle longer on Irish farmers. The Department's move to get a "Green Pound" for Ireland

also hold the promise of higher prices for fat cattle. At least until the issue is settled, cattle-owners have an incentive to retain fat cattle in the hope of benefiting from the introduction of the "Green Pound". These measures– the slaughter premia rising to February and the campaign to procure a "Green Pound"– encourage large farmers to hold on to fat cattle which have reached slaughter stage. They thereby increase still further the number of Irish cattle to be held over the winter, although fodder supplies are already quite inadequate. They are, above all, measures which are likely further to depress prices of young cattle and to result in more of these perishing during the coming winter.

The policies of the Department of Agriculture and Fisheries are based on the assumption that what's beneficial to fat cattle producers is also beneficial to young cattle producers. The Department has failed to appreciate that the proportion of the finished price which he gets for his young cattle is more important for the small farmer than the price which the large farmer gets for the finished animal. 60% of a finished price of £100 is better for the small farmer than 30% of a finished price of £200. His cash income in both cases is the same, but in the former case the price of beef, and probably of other items also, is lower, so his real income is higher.

Failing to appreciate the conflict of interest between small farmers and larger farmers, between the sellers of young cattle and the buyers of these, and failing to appreciate the complex, highly diversified and highly specialised character of the cattle industry, the Department of Agriculture and Fisheries pressed ahead with policies which greatly disrupted the balance between supply and demand for young cattle and, while resulting in great benefit to large farmers by way of extremely low costs for young cattle, have brought great loss and hardship to small farmers.

It is possible that if the present and recent incumbents of the office of Minister for Agriculture and Fisheries had been themselves small farmers, or had their political roots firmly implanted in small farmer constituencies, they would have been more keenly aware of where the small farmer's interest lie. As things were, they pursued policies tailored to the needs of large farmers and in doing so wrecked havoc on the economy of Ireland's small farmers.

The Department of Finance, through its general control of expenditure in all Departments, including Agriculture and Fisheries, and especially through its control of ACC and banking policy, bears a large measure of responsibility for the harmful policies pursued by the Department of Agriculture and Fisheries and by the credit institutions. It is not easy to understand how economists in the Department of Finance, trained to think in terms of dynamic equilibrium, could have failed to recognise the great and rapidly growing disequilibria in the country's cattle industry, as cattle numbers increased by 6% annually while the capacity to carry these increased by less than one-sixth this rate. A competent economist, lacking all knowledge of livestock husbandry matters, from a perusal of basic data on cattle stocks and prices, would have recognised long before 1973 that the policies being pursued by the Department of Agriculture and Fisheries and by the banking system were leading the cattle industry towards disaster.

## THE BANKING SYSTEM

Banks profit by lending money at high interest rates to borrowers; who use the money to buy goods and services from other people; who then deposit the money with the banks at zero or low interest rates. The more money banks advance, the more profits they make.

**Advances and Profits of Associated Banks**

| YEAR | ADVANCES | PROFITS |
|---|---|---|
| | £m | £m |
| 1971 | 466 | 21 |
| 1972 | 623 | 28 |
| 1973 | 734 | 41 |

Effectively the only limitation on the banks increasing the amount they advance and so their profits is that imposed by the Central Bank. It is the Central Bank's responsibility to ensure that commercial banks and other credit creating institutions, such as the ACC, use their money-creating powers in a socially responsible manner and so not abuse it for private profit or institutional aggrandizement. It is the function of the Central Bank in particular to ensure that the commercial banks use their money-creating powers to maximise the economy's output over the long-term while maintaining the value of the currency, at least within acceptable limits.

A continuous conflict exists between the commercial banks, which want to expand advances so as to raise their profits, and institutions such as the ACC, which want to grow in size and prestige with higher salaries and status for their staff, on the one hand, and, on the other hand, the Central Bank which has the duty to restrict the supply of money so as to preserve its value and to encourage sustainable economic growth. The banks search out activities which they can persuade the Central Bank are such that if they advance money to them, national product will be increased at least by the value of the new money created. The economy will, in that case, benefit by the amount of the new wealth created, with no inflationary side-effects. Agriculture, and especially cattle production, were presented by the banks as such an activity from 1968 onwards.

Providing abundent capital for agriculture by the banking system is a familiar populist appeal. It appeared to acquire financial respectability in recent years as cattle prices moved apparently inexorably upwards and as cattle output expanded more rapidly than ever before. It was, nevertheless, a major error of judgement, understandable in the layman but inexcusable in central bankers.

The individual farmer, especially at times of rising prices, frequently profits by borrowing money to increase output. But the logical error of composition is involved in proceeding to deduce that what is good for an individual farmer will also be good for the sector as a whole. If a single farmer gets credit, the expenditure of the loan in buying additional resources will not affect the price of these resources. Neither will the slight additional output which he achieves as a result of getting the loan affect the price of the farmer's product. But if 100,000 Irish farmers get £40 million from the banks and £17 million from the ACC, as they did in 1972 and in 1973, then both the cost of what they buy and the value of what they produce are certain to change dramatically. In the present case, what the farmers mostly bought was young cattle; which was also

what, after an interval, they also mostly produced.

Farmers, in seeking to buy more of a supply of young cattle, which is fixed in the short term, drove their price up to dizzy heights, which made farmers even more eager to produce more of them. When the increased supply of young cattle reached a market that for other reasons had plateaued out, prices collapsed. Incredible as it may seem, neither the Commercial Banks and the ACC, which doubled lending to agriculture in 1972/73, nor the Central Bank, which sanctioned this doubling of credit, appears to have contemplated the effect of this massive expansion of credit on the cost of farmers' inputs or the value of their outputs. Had they done so they would have found ample evidence that lending to agriculture on the proposed scale would reduce total agricultural output and add to the going rate of inflation.

The speculative upsurge in cattle prices made possible by the expansion of agricultural credit encouraged the rapid expansion in cattle numbers, both by reducing disposals of cattle and by increasing the breeding herd in 1972 and 1973. This led to overstocking, which has caused a decline in milk yields and output in 1974 and probably also to a reduction in rates of cattle weight-gain. The smaller output of prime cattle in 1974, notwithstanding much larger cattle stocks— indeed, because of these larger cattle stocks— is probably in part accounted for by the decline in the rate of weight gain of cattle on over-stocked pastures.

The speculative boom in cattle prices and the expansion in cattle stocks which were encouraged by the rapid expansion in credit also contributed to the exceptionally steep decline of 6% in tillage in 1973, which continued into 1974. This decline in tillage, at a time of exceptionally high crop prices, reduced the value of crop output while output on the overstocked grassland also declines. The tillage decline in turn affected adversely agricultural based industries, including especially the beet-suger industry.

The desire of commercial banks to increase advances and thereby profits, and of the ACC to increase advances and thereby its corporate status and the status and salaries of its executives, are understabdable if not commendable. Much less understandable is the licence which the Central Bank gave for this credit expansion at a time of rapid inflation and of rampant speculation in the cattle industry.

The banking system, instead of choking off dangerous speculative increases in cattle stocks and in cattle prices, fed the speculation by injections of abundant credit, like a person who sets about extinguishing a fire by pouring petrol on it. In doing so the banking system caused serious waste of capital, disruption in the cattle industry, and great financial loss among cattle producers. It aggravated inflation and created the present need for severe credit restrictions which are bound to slow growth and cause serious unemployment. The explosion in credit for Irish agriculture under inherently speculative circumstances was a classical case of the manner in which a modern, privately-owned, commercial banking system, free from the discipline of currency convertability and inter-bank competition, can pursue profit from its money-creating capacity regardless of social consequence. It was also an example of the executive of a State-owned organization, the ACC, expanding the scale of the organization's activities for corporate aggrandizement, regardless of the impact on the public wellbeing. It was also a classical example of a central bank, failing to monitor developments in a major sector, being deluded by the general hysteria and feeding that hysteria instead of nipping it in the bud through timely and prudent application of credit restraint. The

instance provided a crucial test for the Central Bank, and the Bank failed utterly in that test.

To summarise, the injudicious expansion of credit to agriculture in recent years has caused the following losses, primarily to small farmers but also to the economy as a whole :

(i) a loss of capital to farmers caused by the expansion of cattle stocks by about one-third in excess of what can safely be carried through the winter;

(ii) a reduction in milk and beef output from overstocked pastures;

(iii) a reduction of crop output of about 10%.

(iv) the introduction of a major new element of instability and sharp cyclical fluctuation in the cattle and dairy industries;

(v) reduced activities in agricultural processing industries;

(vi) an increase in inflation of at least 8% during the past two years, which has necessitated the present severe credit squeeze, which is already leading to rapidly increasing unemployment throughout the economy.

## MARKETING BODIES

**Bord Bainne :** Bord Bainne predictions of an increase in manufacturered milk production from 600 million gallons in 1973 to 1,000 million gallons in 1980 were imprudent and were more likely to engender recklessness than confidence. It is extremely unlikely that these predictions will be validated (a) because demand for dairy products in developed countries is either static or declining; and (b) because, by any recognised standard, Ireland has a **comparative disadvantage** and not a **comparative advantage**, in milk production as has frequently been claimed by persons who do not understand the concept of comparative advantage.

These much published predictions by a national marketing board encouraged farmers to expand dairy cow numbers in accordance with plans formulated when calf prices were equal to 40% of the current price of mature cattle. These high calf prices were the result of powerful speculative factors, including the unwarranted assumption of continued 50% increases annually in beef prices. These high calf prices could not possibly be maintained if cow numbers were to continue to increase at 10% annually, as implied by the Bord Bainne predictions.

Had Bord Bainne considered the implications of a continued annual 10% growth in cow numbers on calf prices and on the relative returns from dairying and dry cattle, it would have been forced to recognise that such a rate of growth in cow numbers was unsustainable. A more realistic, internally consistent prediction of future milk production by the Bord would have contributed an element of realism into a highly speculative situation, which owed not a little to the Bord's ill-founded prediction of an increase in milk production from 600 million to 1,000 million gallons between 1973 and 1980.

**Livestock and Meat Bord** *CBF*; A protracted increase of 6% per annum in cattle numbers in circumstances where the capacity to carry cattle was increasing at some 1% annually was bound to result in severe dislocation. Such dislocation would inevitably cause instability in exports of fat cattle and beef and was therefore a proper concern

of a national marketing bord whose function it was to promote exports of such fat cattle and beef. The Livestock and Meat Board, concerned with promoting exports of fat cattle and beef, failed to warn of the extremely unbalanced development occurring within the cattle industry.

The Livestock and Meat Board had the resources and the status to pinpoint and to curb this socially undesirable development. That it failed to do so is probably due to the fact that the Board is composed of people who benefit as much from cheap young cattle as from expensive beef. Developments in the Irish cattle industry since 1968 ensured for those farmers which the Livestock and Meat Board represents an abundance of low-priced young cattle.

By using its considerable,publicly provided resources solely to sell fat cattle and beef, most of which in any case is going into a beef mountain; by failing to make any effort to develop exports markets for the young cattle and breeding stock which were obviously and rapidly becoming greatly surplus to local requirements; and by failing to draw attention to the serious imbalance between supplies of young cattle and breeding stock and the demand for these, the Livestock and Meat Board served the interests of those represented on the Board to the great cost of the majority of farmers engaged in cattle production in Ireland, and of the long run interest of the cattle industry as a whole.

## RESEARCH BODIES

The failure of the Agricultural Institute, the Economic and Social Research Institute and the universities to warn of unstable development in the country's principal industry, cattle, indicates a very low level in Irish academic circles in the art of economics as it pertains to agriculture. Many factors contribute to this.

Ireland, as a small, poor country, has less resources available than larger, richer countries for such social overheads as research into national economic policy. An exceptionally large proportion of Irish public funds is pre-empted for expenditures which are uncalled for in other countries. Thus, the cost of servicing Ireland's national debt, which is growing more rapidly than in any other country in the world, is higher relative to GNP than in any other country. This national debt has been, and is being, incurred purportedly to create additional jobs, which have not materialised. Again, purportedly to create additional jobs, many industries pay no taxes. This implies either higher taxes elsewhere, or reduced public expenditure, especially on the type of social overhead where the effects of current scrimping will not be felt for a long time ahead. Economic research falls under this heading.

But the quality of resources engaged in economic research in Ireland is likely to be a more limiting factor than the quantity of resources. Ireland, as a small country, lacks the diversity of views of larger countries, which is conducive to the evolution of critical, well-tested thought. The fact that Ireland regularly loses up to half its oncoming population stream through emigration, and that almost by definition, the more critical, less contented half, must also seriously militate against the development here of critical thought.

It is therefore not surprising that Irish economic thought is dull and conformist. Economic research, in so far as it takes place, is closely blinkered; attention focuses exclusively on the minutiae of policy, where scope for disagreement and for manoeuvre

hardly exists. There is no place in Irish economics for those who would question the premises on which policy is based. Only such questioning can hope to avert disasters like that which has now occurred in the cattle industry.

## FARMERS' ORGANIZATIONS

The two main farmers' organisations used their considerable influence to encourage (a) a rapid expansion of cattle numbers; (b) the rapid growth in farmers indebtedness; (c) exclusive concentration on securing export markets for beef, fat cattle and milk. They discouraged attempts to secure export outlets for the young cattle which the majority of small farmers were producing in numbers well in excess of any likely increase in local demand.

The contribution of the Irish Farmers' Association towards creating and accentuating the present crisis is exemplified by its pamphlet **Expansion of the Livestock Industry.** The IFA, in this leaflet, published in December 1973, stated: "The projection here is merely to double the numbers (of cattle) . . . . . over the coming decade . . . . . This is a modest projection." The publication elsewhere states that over the decade 1973–1983 capital requirements of Irish agriculture will be £1,011 million and that "much of this capital will have to be borrowed". Cattle from the already over-expanded national cattle herd died of starvation in large numbers within a few months of the pamphlet in question being published and the banks, at time of publication, had already begun attempting to reduce advances to farmers. More than mere incompetence underlay this remarkably inept publication.

Securing guaranteed high prices for fat cattle had been a main consideration in causing Ireland to join the EEC. To maximise the benefits from this situation it was necessary that fat cattle producers should have an ample supply of young cattle at low prices. The IFA, in the publication referred to, and by other means, aimed at achieving this. Small farmers were encouraged greatly to expand their output of young cattle and to borrow heavily to do so. Such an expansion in young cattle supplies ensured their availability for fattening at low prices to large farmers. The combination of low prices for young cattle and high guaranteed prices for fat cattle yielded maximum profits to the large farmers who control the two major farming organisations.

The two major farming organisations did not, of course, consciously and deliberately set about achieving an expanded supply of young cattle so that these would become available to large farmers at a price which would be disastrously low for small farmers. Issues are rarely as clearcut and unambiguous as that. Rather, the two main farming organisations, being dominated by large farmers, pursued and urged on government and the banks, policies which were certainly advantageous to large farmers. The organisations neglected to consider the implications of these policies for the small farmers who constitute the bulk of their membership but have little influence on their policies. Or if the organisations did consider the implications of their policies for the small farmers who constitute the bulk of their members, they must either have done so incompetently, or supressed their findings. Whatever the balance of self-interest and incompetence underlying the actions of the two main farming organisations, as exemplified by the IFA's publication **Expansion of the Livestock Industry**, there is no doubt that the actions of these organisations were a major factor in bringing about the collapse in prices of the young cattle which small farmers produce.

## THE FARMER

The small farmer, in the last analysis, was the person who expanded cow numbers six times more rapidly than the rate of increase in the country's grassland cattle-carrying capacity and who borrowed the money from the banks and the ACC to do so. The severe losses which he is now suffering might be regarded as the appropriate penalty for reckless, ill-considered actions. As the Department of Agriculture and Fisheries in its *Bulletin* puts it : "Forewarned is forearmed. Every farmer should make sure he has enough winter feed for the number and type of livestock he intends to carry over next winter." A second IFA pamphlet **Winter Feed: Weak link in Livestock Expansion,** published six months after **Expansion of the Livestock Industry,** also recommends to farmers: "Reduce your dependence on somebody else purchasing your stock and relieving you of your wintering responsibility; they may be once again short of winter feed this winter and leave you in the lurch." Such a view can only be sustained by disregarding the essentially social, interdependent character of the Irish cattle industry.

Few farmers have willingly or recklessly placed themselves in the position of having less than two-thirds of the fodder necessary to carry their stocks of cattle through the winter. Yet, collectively, this is the position for all the farmers of Ireland. That it should be so is due to the highly specialised character of Irish cattle production, which specialisation normally is a source of great strength and efficiency. One farmer breeds the calf; another rears it to the weanling stage; another winters it; another grazes it as a store; and so on up to the final fattening stage. Each farmer concentrates on that stage of production for which his circumstances are best suited. The effective operation of the industryrequires that all of these phases should work in harmony so that, for example, if the calf breeder decides to breed 6% more calves, others in the chain will simultaneously decide to increase their throughput also by 6%. What in effect has happened however, is that small farmers, in response to urgings from all sides (including for example the IFA's pamphlet **Expansion of the Livestock Industry,** in December 1973, and a message from the Minister for Agriculture and Fisheries in the Department's *Bulletin* of January 1973) have increased both their breeding herds and their capacity to carry these larger herds. But having done so, they now find that large farmers have reduced the throughput of fat cattle and so require fewer, rather than more, replacement cattle. Belatedly, small farmers are finding out that the very process of guaranteeing a market for the fat cattle which large farmers produce has had the effect of reducing the market for the small farmers' young cattle. No longer able to sell his young cattle, the small farmer has to carry not merely a larger herd of breeding cattle, but their produce, for which he had been assured there would be a secure, lucrative market.

The individual small farmer had, in practice, little choice in desisting from borrowing to expand his cattle output. He was urged on all sides to do so and credit facilities were made temptingly available to him. If the Central Bank was unable to forsee the calamitous effect of a massive increase in credit to agriculture, it is understandable that most Irish small farmers did not understand that, by their collective use of the credit resources made liberally available to them, they were tying a millstone of indebtedness around their necks which would undermine their solvency.

As credit was forced upon farmers, cattle prices soared. Financially prudent farmers who sold their young cattle rather than borrow to meet current outgoings, or who refrained from borrowing to buy additional breeding cows or calves, saw that their

prudence and financial rectitude cost them dearly as cattle prices soared in 1971 and 1972. Very exceptional qualities of financial self-discipline and foresight indeed would have been required to resist being dragged into the speculative surge to borrow and to expand cattle stocks.

Finally as cattle prices were forced up by uncontrolled speculation, many farmers had no option but to borrow the additional amounts required to buy cows and calves. reckless expansion of credit to agriculture placed prudent farmers in the position where they had to cut back on their output, or borrow in order to pay the inflated costs of the breeding cattle and calves which were their main input.

Farmers who collectively since 1968 increased cattle stocks and breeding herds six times more rapidly than their capacity to hold such stocks and who trebled their indebtedness to banks and to the ACC in order to do so, are individually as much responsible for the present crisis in the cattle industry as are the members of an audience who trample one another to death in attempting to escape through a narrow exit from a blazing theatre. The individuals in an audience act predictably and rationally in attempting to escape from the burning theatre. But the predictable and rational actions of individuals are disastrous when they become the collective action of a panicking audience. Responsibility does not rest with the individual members of a panicking audience who trample one another to death. It rests in the first instance on the theatre-owners for failing to provide adequate emergency exits; and in the second instance, on the responsible fire-authority for failing to ensure that such facilities were provided.

Likewise, responsibility for the present crisis cannot be attributed to the 200,000 farmers who collectively borrowed to breed more cattle than the country can carry. That responsibility rests in the first instance on those bodies— government, banks, media, research and educational institutions, national marketing boards and the two main farmers' organisations— which urged farmers to do so. Responsibility in the second place rests with the Central Bank for sanctioning a major expansion in agricultural credit, without which the present disaster in the cattle industry could not have occurred.

Nevertheless, small farmers cannot be completely exonerated from responsibility for the present débâcle in the cattle industry. When a society fails to insist on the provision of adequate safeguards for the life and limbs of its members, and when it fails to enforce these safeguards, ultimate responsibility rests on that society for the inevitable calamities, such as heavy losses in theatre fires, which arise as a result of the thoughtless avarice of individuals. Irish small farmers have, in a similar sense, brought upon themselves the present disasters by neglecting to take effective action to ensure a minimal degree of protection of their interests. Irish small farmers abdicated collective responsibility for their interests. They have relied on institutions and organisations dominated by large farmers, or responsive to pressures from large farmers, to protect and advance the interests of small farmers. These institutions and organisations have pursued policies and adopted measures designed exclusively for the betterment of large farmers. These policies and measures have resulted in catastrophicly low prices for, and the likelihood of the mass starvation of, the young cattle which small farmers sell and which large farmers buy. They have caused small farmers to incur debts of hundreds of millions of pounds to banks and to the ACC. They have impoverished small farmers while enriching large farmers. Small farmers, in so far as they permitted themselves to be manipulated by organisations and institutions dominated by large farmers, are responsible for their own impoverishment.

CHAPTER 7

# Alleviating the Crisis

## INTRODUCTION

Resources to the value of some £400 million have been lost as a result of incorrect policies pursued in relation to agriculture during the past six or seven years. These are real resources whose loss involves real impoverishment of Irish people. The value of small farmers' assets has been lowered, their incomes depressed, and their indebtedness to banks and the ACC greatly increased. Consumers must pay, as a result of these losses, higher prices. Non-agricultural producers must pay through the higher operating costs caused by the loss of £400 million of resources. Many of these producers will be forced out of business or employment by these rising costs. Many other producers will be forced out of business by the credit squeeze which is now necessary after the massive credit expansion of recent years, which has done so much harm to the economy but which has resulted in a doubling of bank profits between 1972 and 1974. These are losses which have already been incurred and the effect of which will be experienced with increasing severity, though with uneven instance, throughout the economy during the coming months. These losses cannot now be avoided. The concern of this chapter is with how their effects on small farmers may be alleviated.

## THE FODDER SHORTAGE

Fodder supplies are inadequate to carry the country's cattle stocks through the coming winter. The result of this will be that very many cattle will starve to death; prices of young cattle will drop lower and lower; incomes of small farmers will decline still further; and their indebtedness will increase still further as interest charges on existing debts accumulate and as current, unavoidable outgoings exceed farmers' depressed incomes.

Advice from the Department of Agriculture and Fisheries and from the Irish Farmers' Association to the small farmers who own young cattle, not to keep more cattle through the winter than their feed supplies will sustain is unhelpful. Largely due to the work of these institutions, the situation now exists where feed supplies are at least one-third less than are required to carry existing cattle stocks through the winter without serious losses. Given this situation, in so far as one individual brings his feed supplies/cattle stocks situation into balance, it creates greater imbalance elsewhere in the country. If all farmers attempted to implement the advice given by the Department of Agriculture and Fisheries and by the Irish Farmers' Association, the result would be that about one-third of the country's cattle stocks would be turned on to the roads, with no one to buy them.

Fodder supplies for next winter for practical purposes are fixed, and have been so from the beginning of the year. Given the grassland acreage and the livestock population,

the amount of fodder produced in any year in the form of ungrazed pastures, hay and silage, is virtually determined. Effective action to alleviate the industry's grave fodder shortage– as distinct from shifting one farmer's problems off on to another, less fortunate one– must therefore turn on (a) using the available fodder supplies more effectively, and (b) reducing livestock numbers nearer to the level which can be carried through the winter without mass starvation.

## MORE EFFECTIVE USE OF FODDER

Two extremes of fodder utilisation may be noted :

A. Feeding the available fodder ad lib to gain maximum weight gain from a small number of cattle.
B. Rationing the available fodder so as to carry the maximum number of cattle through the winter without serious losses from starvation.

The former system of feeding is almost universally recommended by cattle technologists, particularly those with little practical experience of farming conditions. It is economically justifiable under certain very limited conditions as to (a) the cost of winter fodder; (b) autumn prices of cattle; (c) spring prices of cattle. More generally, conditions are such that a feeding regime lying somewhere between the extremes of A and B is the economically optimum. Farmers, for the most part, operate closer to that optimum than they would if they followed the ill-conceived advice of most cattle technologists, who are normally concerned with maximising output rather than profit.

It is probable that, as part of the general chronic mismanagement which has characterised the Irish cattle industry since 1968, farmers have been induced in recent years to operate closer to the A regime of wintering cattle than was economically justifiable. It will certainly in future be profitable for Irish farmers to operate closer to the B regime than has been the case recently. This is because within the EEC, due to the relative scarcity of summer grass and relative abundance of winter keep on the continent,* the margin between autumn and spring cattle prices is considerably less than has obtained, even in recent years, in Ireland and Britain.

A deliberate move next winter, therefore, away from the regime of feeding large quantities of fodder to small numbers of cattle and towards a regime of feeding small quantities of fodder to large numbers of cattle would help to reduce losses of cattle from starvation. It would also improve the incomes of small farmers. Finally, it would be in line with a trend which will in any case develop here in future years as the Irish cattle industry becomes more closely integrated into the common market.

The economic reasoning underlying the foregoing recommendation is illustrated by the following highly simplified illustration. It is assumed that there are two types of winter cattle activities. One is buying 8 cwt store cattle in the autumn and fattening them to 11 cwt for sale in the spring. The other is buying similar cattle in the autumn and holding them at the same weight to sell as stores in the spring. It is further assumed that twice as much fodder is required to fatten as to store cattle so that for every animal fattened, two can be stored.

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* This also underlines the continent's comparative advantage over Ireland in milk production and Ireland's comparative advantage in store cattle production. See **Irish Agricultural Production**, R. D. Crotty, PP. 74–77.

Three situations are considered, labelled respectively Past, Future and Present. In the Past a combination of autumn store, spring store and spring fat cattle prices is assumed such that a higher return is obtained from fattening than from storing cattle.

The Future differs from the Past in that the price of spring fat cattle declines relative to the price of autumn store cattle. This is the type of situation which is expected to arise in the EEC, as the margin between autumn and spring fat cattle prices narrows.

The Present differs from the Past in that autumn store cattle prices are assumed to be exceptionally low, as will be the case throughout autumn 1974.

## PAST

| | | PRICE PER CWT | PER HEAD | | TOTAL |
|---|---|---|---|---|---|
| **Fattening** | | | | | |
| 1 | Autumn Store | 100 | 800 | | 800 |
| 1 | Spring Fat | 120 | 1320 | | 1320 |
| | | | | Margin | 520 |
| **Storing** | | | | | |
| 2 | Autumn Stores | 100 | 800 | | 1600 |
| 2 | Spring Stores | 130 | 1040 | | 2080 |
| | | | | Margin | 480 |

Advantage to fattening : 520 – 480 = 40

## FUTURE

| | | PRICE PER CWT | PER HEAD | | TOTAL |
|---|---|---|---|---|---|
| **Fattening** | | | | | |
| 1 | Autumn Store | 100 | 800 | | 800 |
| 1 | Spring Fat | 110 | 1210 | | 1210 |
| | | | | Margin | 410 |
| **Storing** | | | | | |
| 2 | Autumn Stores | 100 | 800 | | 1600 |
| 2 | Spring Stores | 130 | 1040 | | 2080 |
| | | | | Margin | 480 |

Advantage to storing : 480 – 410 = 70

## PRESENT

| | | PRICE PER CWT | PER HEAD | | TOTAL |
|---|---|---|---|---|---|
| **Fattening** | | | | | |
| 1 | Autumn store | 94 | 752 | | 752 |
| 1 | Spring fat | 120 | 1320 | | 1320 |
| | | | | Margin | 568 |
| **Storing** | | | | | |
| 2 | Autumn Store | 94 | 752 | | 1504 |
| 2 | Spring Stores | 130 | 1040 | | 2080 |
| | | | | Margin | 576 |

Advantage to storing : 576 – 568 = 8

These highly simplified examples illustrate the point which few cattle technologists appreciate: relative autumn and spring prices of cattle are crucial in determining whether fattening or storing cattle is more profitable. Given a decline in spring fat cattle prices relative to autumn prices, as will occur here over the long-term as a result of joining the common market, fattening cattle will be less profitable and storing will be more profitable during the winter. A similar shift in the relative profitability of fattening and storing cattle will occur during the coming winter as a result of an exceptional decline in store cattle prices this autumn. Some amelioration of the harm that has been done to the cattle industry and to the welfare of small farmers can be achieved by vigorous efforts now to explain these matters to farmers and to draw attention to the economic desirability of storing large numbers of cattle rather than fattening small numbers of them during the coming winter.

It is most regretable that the Irish Government has introduced a system of premia, payable on cattle slaughtered between August and February. The premia rise from £9 per animal in August to £32 in February. The effect of this system of premia, which will cost Irish taxpayers about £6 million, will be to raise fat cattle prices in the spring. This will tend to make fattening more profitable than store cattle, and so cause more young store cattle to starve and/or depress their price still further in order to make it attractive to farmers to store rather than to fatten cattle.

The point is illustrated as follows: The system of premia payments on fat cattle announced by the Department of Agriculture and Fisheries on the 2nd August 1974 will cause the price of spring fat cattle to rise above what they would otherwise be. It is assumed that the price rises from 120 (see illustration above, Present) to 140. Autumn store cattle prices will then have to drop from 94 to 67 in order to make it attractive for large farmers to keep large numbers of young cattle alive during the winter, rather than to fatten a small number of them, while allowing large numbers of them to starve to death.

**PRESENT (with slaughter premium system of the Department of Agriculture and Fisheries)**

| | | PRICE PER CWT | PRICE PER HEAD | | TOTAL |
|---|---|---|---|---|---|
| **Fattening** | | | | | |
| 1 | Autumn store | 67 | 536 | | 536 |
| 1 | Spring fat | 140 | 1540 | | 1540 |
| | | | | Margin | 1004 |
| **Storing** | | | | | |
| 2 | Autumn Stores | 67 | 536 | | 1072 |
| 2 | Spring Stores | 130 | 1040 | | 2080 |
| | | | | Margin | 1008 |

At a price of 68 per cwt, or higher, for autumn stores and with spring fat cattle at 140 instead of 120, fattening would be more profitable than storing cattle.

The fat cattle premium system of the Department of Agriculture and Fisheries has been designed to increase the profits of large farmers and, by encouraging large farmers to hold on to beef cattle until next spring, to save the Department the embarrasment of

a collapse in the ill-conceived and inefficiently operated beef-intervention system. It will do so at a cost of £6 million to Irish taxpayers, and, as the above example illustrates, at the cost of further serious depression of young cattle prices for small farmers, and of greatly increased losses of young cattle through starvation during the coming winter.

It would be difficult to conceive a scheme more likely to do more harm to Irish small farmers and to cause more starvation of more young cattle next winter, than that introduced by the Department of Agriculture and Fisheries on 2nd August, 1974, and which will cost Irish taxpayers many millions of pounds. Appropriate action for the Government to take now to mitigate the harm which has been done to small farmer producers of young cattle is :

1. To reverse the present system of premia payments, paying a high premium per animal in August; declining in September; and terminating in October.
2. To suspend, at least temporarily, the beef-intervention system which has caused tremendous instability in supplies and prices of beef to consumers; has brought about a collapse in young cattle prices; has involved EEC taxpayers in enormous costs for storing and dumping "the beef mountain"; and which has greatly antagonised the EEC's trading partners, incurring the risk of such retaliatory measures as a ban by the USA on cow-beef imports from Ireland.
3. To urge the EEC to announce its intention of (a) liberalising beef imports from November onwards and (b) releasing on the EEC market all stockpiled beef from January onwards.

These measures would have the following effects :

(1) Encourage farmers to dispose immediately of cattle fit for slaughter, and so reduce cattle stocks during the coming winter.

(2) Discourage fattening and encourage storing cattle over the winter and thereby raise the price of young cattle, increase small farmers' incomes and reduce the number of young stock which will starve to death next winter.

(3) Benefit taxpayers, by reducing the cost of intervention on the beef market and directing this intervention towards reducing the price of beef rather than stock-piling it in a beef mountain.

## REDUCING STOCK NUMBERS

The measures suggested in the previous section would also have the effect of reducing the numbers of fat cattle and so help to bring cattle stocks closer into line with the number which can be carried through next winter without disastrous losses from starvation. The main hope of mitigating such losses must, however, lie with an extremely belated but urgently necessary reversal of official attitudes towards the export of young cattle.

Irish small farmers, who constitute 75% of the total farmer population, have been urged on all sides to increase output. They have done so in a dramatic fashion and are entitled now to dispose of that increased output on the most lucrative available markets. It is also important for the economy that Irish small farmers should be permitted to market their produce on the most lucrative market, and that they should not be compelled to sell their young cattle on the home market at bankrupt prices to a small number of large farmers.

It is insufficient for the Minister for Agriculture and Fisheries, who, until July 1974, bitterly opposed the export of small farmers' young cattle, to indicate now that such exports will be tolerated while young cattle cannot be sold on the home market, with the clear implication that the trade, if established, will subsequently be harassed and impeded as a matter of Government policy, as it was prior to July 1974. Such an attitude denotes not so much a shift from hostility to neutrality as a shift from overt hostility to one of covert hostility. The interests of the economy, of the cattle industry and of the small farmers who constitute the vast majority of the farming population, require an immediate change to a policy of developing actively exports of young cattle through appropriate, adequately endowed, imaginative and vigorously pursued action.

Large, lucrative export markets are known to exist for calves, young feeder cattle, in-calf and maiden heifers, young suckling cows, store lambs, ewes and Irish draft mares. These markets have been deliberately supressed by Government so as to compel small farmers to sell their cattle, sheep and horses at low prices to large farmers on the home market. The large and lucrative export markets, which have been carefully researched and are known to exist, cannot be expected to develop overnight now that the Minister for Agriculture and Fisheries has shifted from a position of overt hostility to these markets to one of less bitter opposition . Positive, joint action is necessary to develop these export markets immediately so that they can absorb Irish livestock which will otherwise starve to death during the coming winter.

The returns from such joint action may be gauged from the fact that for every 1,000 young cattle exported now, the value of those remaining will rise by some 50p per head. Thus exports of some 20,000 young cattle would raise the value of the two million odd cattle less-than-one-year-old remaining in the country by some £10 each, or by £20 million in total. No action can at this stage do so much to offset the harm that has been caused to small farmers as the vigorous promotion of young cattle exports.

More than sufficient resources for this joint action have already been made available by Irish taxpayers in the form of an annual allocation of £500,000 to the Livestock and Meat Board. The benefits achieved to date by the Board, according to any reasonable criteria, have been zero if not negative. An annual expenditure of £500,000 of public funds is patently not justified if the results, *inter alia,* are that some three-quarters of Irish beef goes into the EEC's "beef mountain" and two million young Irish cattle are virtually unsalable. It is urgently necessary that the present members of the Livestock and Meat Board and the present management be changed; that the Board be reconstituted to represent the interests of the vast majority of farmers, who are small farmers producing young cattle; and that the Board immediately set about exploiting the lucrative export markets which are known to exist for Irish calves, young cattle, in-calf and maiden heifers, young suckling cows, store lambs, ewes, and Irish draft mares.

## THE PROBLEM OF DEBT

Tens of thousands of small farmers have, during the past two years, seen the value of their assets greatly decreased. Young cattle which a year ago were worth £100, are now worth £25 if they can be sold at all. At the same time the indebtedness of small farmers to banks, the ACC and hire-purchase companies has increased enormously. Enough has been written in earlier chapters to make it clear that the transformation in

fortunes which has occurred in Ireland over the past two years, whereby small farmers are impoverished and the banking system has attained an unprecedented level of prosperity, has not been due to recklessness, feckleness, sloth, or extravagance on the part of small farmers. This transformation has been brought about by the abuse by the Irish banking system, including the ACC, of the powers society entrusts to it; which abuses were sanctioned and condoned by a Central Bank that failed in its task of ensuring socically responsible action on the part of the commercial banks.

It is imperative that Irish small farmers should realise clearly —

(a) that the commercial banks and the ACC, for profit and prestige, forced farmers to incur debt;
(b) that the incurring of this debt could only cause loss to small farmers, by depressing agricultural output and by lowering the price of young cattle;
(c) that all citizens, including small farmers, were bound to lose as a result of the inflation caused by the banks expanding credit so as to double bank prodits between 1972 and 1974.

The action of the banks and of the ACC in this matter fall far below normal standards of equity and morality. The debts which small farmers incurred to the banks and to the ACC during this period cannot, for that reason, be regarded as equitable or moral, even if they are lawful. It is conceivable that the debts may not even be lawful, in that they were incurred as a result of the banking system abusing powers conferred upon it by the State for the social wellbeing. But even if the courts find that, under the law as it stands, these debts are lawful, small farmers have a right to insist on such legal changes as are necessary to cancel out those debts to banks and the ACC, which have no basis in equity or morality. The banking system has done great harm and great injustice to Irish small farmers. Irish small farmers should take whatever measures are necessary to ensure that a socially irresponsible banking system causes them no further harm, commits no further injustice to them.

CHAPTER 8

# Preventing a Recurrence

## POLITICAL ACTION

The disastrous situation now confronting small farmers producing calves and young cattle was predictable and preventable. That it was not prevented was due to a blend of avarice, ignorance and moral turpitude on the part of those responsible for national policy in relation to agriculture and cognate matters. But the situation could not possibly have arisen had Irish small farmers, the main sufferers, individually and collectively paid due regard to the formulation and implementation of policies relating to their livelihood. More than to any other single cause, the present debacle in the cattle industry is the result of small farmers delegating to organizations and institutions dominated by large farmers the power to influence, to formulate and to implement policy in relation to the agricultural sector. The present crisis is the result of large farmers using these delegated powers in a manner highly beneficial to themselves and disastrous to small farmers.

It is hardly conceivable that the same disaster as the present could reoccur within the foreseeable future. Irish small farmers are unlikely to listen to, or to pay much attention to, those who led them into their present difficulties. But even if it is unlikely that a similar disaster will occur for similar reasons in the foreseeable future, the present crisis does underline a grave weakness in the organization of the public affairs of small farmers. While this weakness exists, the welfare of small farmers is in jeopardy.

If it is unlikely that small farmers will be again readily misled into borrowing heavily to expand the output of small cattle far beyond the power of existing markets to absorb them, it remains highly likely, as long as large farmers are delegated to protect the welfare of small farmers, that that welfare will continue to be exposed to attacks no less severe than the present. These attacks may take the form of "Modernization Plans" under which small farmers, accounting for 75% of the total farmer population, are deemed to be "transitional", and therefore to be encouraged to move out of agriculture to make their land available to the largest 25% of farmers who are classified as "development farmers". They may take the form of schemes whereby public resources are made available only to especially large farmers, as was proposed in the Mansholt Plan for pig and poultry production. But most of all, the welfare of small farmers is vulnerable while that welfare is entrusted to the hands of large farmers whose interests are more often than not diametrically opposed to the interests of small farmers, and who are likely to interpret to the public, to government and to others the needs of farmers in terms of the needs of large farmers, and not in terms of the entirely different needs of small farmers.

The present crisis in the cattle industry caused by the over-stimulation of the supply of young cattle while the demand for these was depressed as an act of policy, clearly

illustrates the sharp conflict of interest between large and small farmers. The conflict of interest between small farmers who sell young cattle and large farmers who buy these is normally more acute than the conflict of interest between food producers and food consumers. It is, for example, as already noted, more advantageous for small farmers, as well as for consumers, that fat cattle should cost £100 while small farmers get £60 for young animals, than that fat cattle should cost £200 while small farmers still only get £60 for their young cattle.

Small farmers, despite this conflict of interests, have been largely content to subscribe to organisations which are effectively controlled by the minority of large farmer members. They have subscribed to these organisations in the belief, which the present crisis has clearly shown to be mistaken, that their interests and those of the large farmers who control these organisations are identical. Once in the organisations, by and large, small farmers leave the running of them to the minority of large farmers, because these are frequently more articulate, can usually better afford the time and money to hold positions of power, and because their wealth confers upon them a special status in rural society.

The present disastrous situation for small farmers depending on the sale of young cattle makes more than usually clear the conflict of interests which has always existed between large and small farmers. It should, to that extent, stimulate small farmers to join existing, or to create new, organisations to serve exclusively the interests of small farmers and open exclusively to membership by small farmers.

Should membership of such small farmers' organisations not be possible or acceptable to individual small farmers, the clear lesson of the present crisis is that such persons should at least cease to be members of, and contribute funds to, existing organisations dominated by large farmers. Small farmers by withdrawing from membership of these organisations can benefit in two ways. First and immediately, they can save themselves membership fees and levies on milk, cattle and grain, which are a matter of some importance at the present time of acute financial stringency. Second and more important, they can, by reducing the membership and the financial resources of these large-farmer-dominated organisations, reduce the influence of these organisations which, as the present cattle crisis demonstrates, has been and will continue to be, used for the benefit of large farmers to the detriment of small farmers. That is to say, if small farmers are unable or unwilling to join small farmer organisations, they can at least spare themselves the cost of membership of organisations dominated by large farmers and using the political power of a mass membership of small farmers to further policies beneficial to the large farmer leadership and detrimental to the mass, small farmer membership. Small farmers can at least cease to allow themselves to be the pawns of large farmers in a game played for the aggrandisement of large farmers and the impoverishment of small ones

There is an undoubted bias in favour of large farmers in Dail Eireann and in the Department of Agriculture and Fisheries. In both institutions "the big" is mistakingly regarded as synonymous with "the good", or "the efficient". It should be the concern of small farmers to rectify this imbalance. They can do much to do so by withdrawing political support from Dail Deputies of all parties with large farm backgrounds, or with records of serving the interests of large farmers. They should seek alliances with, and offer support to, Deputies of all parties who have small farmer backgrounds, who come from predominently small farmer constituencies, and who are prepared to

recognise the conflict of interest between small and large farmers and who are prepared, in the best interest of the country, to commit themselves unequivocably on the side of small farmers.

It should be the particular concern of small farmers to ensure that no large farmer ever again becomes Minister for Agriculture and Fisheries, bringing to that office, consciously or unconsciously, a bias in favour of large farmers, to reinforce and to perpetuate the inherent bias in favour of large farmers which has for long existed in the Department. Small farmers should insist that future Ministers for Agriculture and Fisheries should be themselves small farmers, or should have distinguished themselves by special and notable efforts to redress the imbalance which at present exists throughout the Irish economy against small farmers.

Small farmers must assume that large farmers who act as delegates to Government, to Departments or to others, will present a large farmer case, even though they may purport to speak and to act on behalf of all farmers. Small farmers must recognise that only small farmers can present and interpret the small farmer case.

Farmers are represented on many State and semi-State boards, including the Central Bank, the ACC, Bord Bainne, the Livestock and Meat Board, the Agricultural Institute, and Radio Telefis Eireann. The farmer representative on these boards have either contributed to orienting the policies of these boards and institutions in favour of large farmers to the detriment of small farmers, or they have condoned such orientation. Some indications of the manner in which these organisations have operated to the detriment of Irish small farmers have been given earlier in this report. It is important for small farmers to realise that these organisations will continue to serve exclusively the interests of large farmers, regardless of the effect of this on small farmers, unless the present farmer representatives on these boards are replaced by small farmers or the nominees of small farmers.

## EDUCATION

The measures so far suggested to prevent a recurrence of the type of disaster which now confronts Irish small farmers are political in nature. They are aimed at ensuring that in public affairs the views and needs of small farmers are not suppressed and sacrificed to the normally conflicting views and needs of large farmers. This political action needs to be complemented by action of an educational nature to ensure that if, by political action, the present bias in public affairs against small farmers and in favour of large farmers is rectified, centralised decision-makers will have the knowledge and the understanding to appreciate the national need for, and to formulate and to implement, policies favourable to small farmers.

Reference has already been made to the quite general phenomenon of economists being ignorant of matters agricultural and agriculturists being ignorant of matters economic. Why this should be and its especially serious implications for Ireland have been explained. An improvement in this situation should be sought by encouraging persons with a farming background to train as economists. Such persons, in public service and elsewhere, would certainly have recognised the dangerous trend of agricultural matters which has existed here since 1968, (though without a simultaneous improvement in the standards of integrity acceptable in the Irish public service, there is no assurance that they would have spoken out against, or otherwise have attempted

to stem, a patently disastrous development).

Small farmers, and especially those who would accept positions of responsibility in small farmer organisations, or accept the duty of representing small farmers in public bodies, would benefit from formal training through suitably devised courses in economics. Such courses could be based on the London City and Guilds Course in Farm Business Management, appropriately adapted to meet the needs of Irish small farmers. The curriculum at present being used by the London City and Guilds for its Farm Business Management course is given in an appendix to this report.

## ECONOMIC INTELLIGENCE

The Irish cattle industry, as emphasised throughout this report, operates in a readily predictable manner. Commencing in June, 1973, predictions for each of twelve months in advance have been made and updated from time to time of four key variables :

(i) the price of young store cattle;
(ii) the price of calves;
(iii) off-farm sales of prime cattle;
(iv) off-farm sales of cows.

None of these predictions has had an error in excess of 10%; only a small number have erred by 5% or more.

The data existed more than a year ago which made it possible to predict with considerable confidence the present slump in young cattle prices. Had this and other relevant predictions been made available at that time to small farmers by an agency meriting their confidence, they could easily have taken action to ensure that they were not now encumbered with large numbers of young cattle for which they cannot find buyers.

The estimated cost of producing, month by month, updated predictions of the variables mentioned for each of twelve months in advance is £20,000 annually. Such a service would have saved small farmers tens, and perhaps hundreds, of millions of pounds in 1973 and 1974. It is inconceivable that anything approaching the present disruption in the cattle industry and, indeed, in the whole economy, could have occurred if competently worked out predictions of cattle prices and disposals had been made regularly available. Such predictions are made available to farmers by governments or semi-official agencies in other countries, including Britain, the USA and West Germany.

Creamery Investment : It is clear that decisions to invest in the dairy industry based on assumptions that national milk supplies would increase from 600 million gallons in 1973 to 1,000 million gallons in 1980 were ill-advised. The 4% decline in milk supplies in 1974, the collapse in calf prices this year and the prospect of even lower calf prices in 1975, a 36% decline in cow inseminations in the first quarter of 1974, are all indications that milk supplies will tend to decline rather than to increase over the coming years. This in turn is likely to lead to serious financial difficulties for major milk-processing firms. It is desirable, in view of this prospect, that small farmers should press for an improvement in the management of, and in the quality of the economic intelligence available to, the dairy industry.

## CONTROLLING THE BANKING SYSTEM

Recent developments highlight the remarkable contrast which has existed for almost a century-and-a-half between the fortunes of the Irish banking system and of Irish society. Few banking systems in the world have enjoyed such protracted, unbroken prosperity as the Irish banking system. By contrast, no country in the world can match Ireland's record of political and social decay– with its population less than half what it was 130 years ago, and its work force 30% less than it was when the State was founded fifty years ago. The Irish banking system has grown rich and powerful as Irish society has shrunk and decayed.

A century-and-a-half of Irish economic and social history demonstrates that the great wealth and power of the Irish banking system is not a sufficient condition for the welfare of Irish society. There are cogent reasons to believe too that the extraordinary wealth and power of the Irish banking system are not a necessary condition for the welfare of Irish society.

Irish small farmers, who have been impoverished by the actions of the banks in expanding credit in order to double profits between 1972 and 1974, should press for radical measures to ensure that the banking system in future operates in a socially responsible manner. These measures should be pressed through if necessary– indeed, preferably– at the cost of reducing the wealth and profits of the banking system. Ireland would be a better, more prosperous place if its banks had less wealth and made smaller profits.

The actions of the commercial banks, which have brought havoc on small farmers, would not have been possible had the Central Bank fulfilled its responsibility of ensuring that the commerical banks, in pursuing profits, did not act contrary to national interests. It is of the utmost importance to Irish small farmers and to Irish society as a whole that the banking system should in future act in accordance with the needs of society. To ensure that, it is necessary that the present Board of Directors of the Central Bank should be replaced by persons who have the confidence of small farmers and of the public at large.

## THE FARMER'S RESPONSIBILITY

A succession of relatively prosperous years, which were due to a buoyant demand for cattle abroad and inflationary policies at home, dulled the natural and well-founded scepticism of small farmers. Six years of rising cattle prices made them receptive to advice and recommendations from sources which they would normally and justifiably treat with scant respect, as being incompetent; as failing to comprehend the problems of small farmers in all their infinite complexity; and as being irresponsible, in that, while, for example, they were ready to advise small farmers to produce more young cattle, they incurred no obligation whatever to buy these young cattle at reasonable prices once they were produced, but rather pursued simultaneously policies which depressed both export and home demand for them.

Irish small farmers have paid, and will long continue to pay, dearly for dropping their defensive scepticism and for allowing themselves to be misled by those who either have not the competence to lead well, or who, like large farmers and the banks, stand to benefit from the mistakes and misfortunes of the small farmers whom they mislead.

If eternal vigilance is the price of freedom, eternal scepticism is the price of small farmer survival and prosperity. Nothing that has been suggested in this report can absolve Irish small farmers from the need for this eternal scepticism. Whatever new organisational forms, whatever adaptations to existing institutions, whatever policy initiatives may arise as a result of the present crisis in the cattle industry, the prosperity and well-being of the small farmer must, in the last analysis, depend on his own efforts on his own behalf.

It may, on occasion and to an extent, be convenient and expedient for small farmers to rely on others, including small farmer organisations and the consultants and others employed by these organisations. But the bitter lesson of the past two years is that these can be trusted only in so far as the small farmers who have recourse to them can, critically and sceptically, oversee their actions.

## TECHNICAL APPENDIX

The variables which have been identified as having caused Irish cattle stocks to increase from less than 5 millions in 1963 to nearly 7½ millions in 1974 and the statistically significant relationships between these variables are as follows :

1. $Cd = 655 + 0.540\ (Yd^{i}/Yb^{i}) + 35.12T$

   where in any year :

   Cd is the number of dairy cows in thousands;

   $Yd^{i}$ is the income from dairy cows in the preceding year *Table 9;*

   $Yb^{i}$ is the income from rearing and fattening cattle in the preceding year *Table 11;*

   T is the year, increasing in value from 1 in 1963 to 11 in 1973.

2. $Cs = 101 + 1.595\ (Ys^{i}/ Yf^{i}) + 22.16T$

   where in any year :

   Cs is the number of suckling cows in thousands;

   $Ys^{i}$ is the income from suckling cows in the preceding year, *Table 10.*

   $Yf^{i}$ is the income from fattening cattle in the preceding year, *Table 12.*

   T is as in 1 above.

3. $Pc/Ps = -14.7 + 1.468\ (Cs/Cw)$,

   where, in any year :

   Pc/Ps is the percentage of the value of calves to the current value of 6½ cwt bullocks;

   Cs/Cw is the percentage of the total cow herd accounted for by suckling cows.

4. $Ps/Pm = -260 + 2.29\ PPm/Pm + 106S + 0.098\ GF + 3.03B$

   where in any month :

   Ps/Pm is the value of a 6½ cwt bullock expressed as a percentage of the current value of a 10½ cwt bullock;

   PPm/Pm is the value farmers expect fat cattle to be in future as a percentage of the current value of fat cattle;

   S is the acres of grassland per Grazing Livestock Unit;

   GF is the ratio of the price of grassland products to the cost of fertilizers;

   B is the percentage of total Associated Bank non-government advances plus ACC advances which have been made to agriculture.

## EDUCATIONAL APPENDIX

**The following syllabus of the Farm Business Management 1974—75 course of the City and Guilds of London Institute is reproduced by kind permission of the Institute.**

### FARMING OBJECTIVES

This section is concerned with creating an awareness of the role of the farmer or farm manager with special reference to his personal and farming objectives, and to his responsibilities to others. It will lend itself especially to class participation in tutorial style.

1 The role of the farmer/manager as a co-ordinator of resources. Personal and professional objectives. An appreciation* of management by objectives. Responsibilities to owners of capital and to employees. The selection of a farming system that is compatible with available natural, human and financial resources. Responsibilities to the community. An appreciation of the importance of conservation and the dangers of pollution. The organization of one's own time and office routine.

### BASIC ECONOMIC CONCEPTS

This section is concerned with establishing an understanding of a limited number of economic concepts which underlie decision-making on the farm. These concepts could be introduced individually as they become relevant in the syllabus.

2 The question of choice in the face of limited resources; opportunity cost; comparative advantage; diversification and specialization; economies of scale; the nature of costs: fixed and variable. Competitive, supplementary and complementary enterprises; increasing and diminishing returns; supply and demand; marginal costs and returns; least-cost combinations; equi-marginal returns.

### FINANCIAL ASSESSMENT

This section aims to give students an understanding of how to collect, assemble and interpret financial and physical data to permit a meaningful assessment of what has been happening within a farm business, and within individual farm enterprises, with a view to correcting faults and to forward planning. It lends itself to case study work, and it is expected that students will have acquired a knowledge of at least two crop and two livestock enterprises of local importance. Grassland may be considered as a crop enterprise. Examination questions will permit a degree of choice in regard to individual enterprises.

3 Financial and physical information to facilitate meaningful analysis of performance for (a) the whole farm, and (b) selected individual enterprises. The profit and loss account and its translation into input and output terms. Definable measures of profit. Comparative analysis and gross margin analysis of annual results. Contrasting of these techniques with full cost accounting, and the advantages and disadvantages of each of these systems. Factors affecting the profitability of individual farm enterprises.

### BUDGETING, PLANNING AND CONTROL

This section expresses much of the philosophy underlying the course, and should therefore constitute a major part of it and should provide opportunity for case study.

4 The object of budgeting; its inherent difficulties and the opportunities for its use. Types of budget, partial budgets, whole-farm budgets, break-even budgets. Degrees of sophistication

in farm planning, from traditional budgeting to the simple use of gross margins and 'programme planning' methods. The gearing of farm planning to available resources, personal inclination and assessment of market opportunities. Special resource budgets, e.g. labour and capital. The combined use of forward budgets and/or cash flows with the appropriate farm records to facilitate effective control over the whole-farm business, individual enterprise or a particular farm resource.

CAPITAL

This section is designed to show the relationship between profitability and the amount of capital employed. The concept of 'alternative use' should underlie this section which lends itself to case-work.

5 Capital as a stock; landlord and tenant-type capital. Interpretation of the balance sheet. Return on landlord and tenant capital. Capital as a 'flow', cash flows. Planning the use of capital (a) for a whole-farm system (b) for a marginal investment. Investment appraisal; pay-back and rate of return. An appreciation* of discounting. Taxation and taxation allowances. Sources of credit: their cost and appropriate uses. An appreciation* of business structures: sole proprietor, partnership, companies.

LABOUR PLANNING AND CONTROL

This section assumes a certain knowledge of legislation in this sphere and concentrates on recruiting, managing and controlling labour.

6 Job description; recruitment and selection procedures; in-service training – objectives, methods and opportunities. Delegation, communication and motivation. Labour and machinery planning. Method study. Remuneration, incentive schemes, and promotion prospects. Working conditions and human relations.

BUYING AND SELLING

This section is concerned with providing an awareness that production is merely a part of a chain of processes which culminate with the consumer; that farmers are inevitably involved in the function of buying and selling, and that they have a choice in the extent to which they involve themselves in these functions.

7 Identifying and providing the resource requirements of the farm. Identifying and meeting the requirements of the market. Types of marketing organization for farm produce. Farmer participation in buying and selling through co-operation, groups and contracts. The use of market intelligence data. Price determination.

CURRENT AGRICULTURAL POLICIES AND TRENDS

This section provides a consideration of the longer-term political, social and commercial background within which farmers and managers have to make decisions. Inevitably the treatment will be brief but should offer scope for tutorial discussion.

8 The place of agriculture in the United Kingdom economy. Recent and current government policies for agriculture. Recent trends in the structure of British farming; its future prospects.

*By 'appreciation' it is intended that students will be provided only with an introduction to the main principles or facts that underlie the topic. One lecture would be regarded as adequate for the purpose, and no examination question will be set which requires a more detailed knowledge.

## INDEX TO TABLES



Note : Except where otherwise stated, data are obtained from CSO, **Irish Statistical Bulletin.**

## TABLE 1

**CATTLE ON IRISH (26 Counties) FARMS, 1861–1974** — **THOUSANDS**

| | 1861 | 1951 | 1961 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | (Est) 1974 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cows | 1208 | 1189 | 1284 | 1323 | 1400 | 1547 | 1582 | 1568 | 1607 | 1657 | 1713 | 1782 | 1895 | 2104 | 2200 |
| Heifers-in-calf & bulls | n.a. | 105 | 140 | 176 | 217 | 208 | 180 | 191 | 196 | 193 | 211 | 242 | 266 | 269 | 250 |
| 2yr old & over | 743 | 1131 | 1101 | 1055 | 993 | 1029 | 1120 | 1141 | 1110 | 1115 | 1140 | 1152 | 1121 | 1145 | 1220 |
| 1–2 years | 447 | 974 | 1077 | 1139 | 1120 | 1216 | 1325 | 1349 | 1295 | 1322 | 1403 | 1409 | 1535 | 1614 | 1750 |
| Less than 1 year | 406 | 977 | 1101 | 1168 | 1233 | 1359 | 1382 | 1337 | 1364 | 1402 | 1489 | 1549 | 1622 | 1844 | 1900 |
| TOTAL | 2803 | 4376 | 4713 | 4860 | 4962 | 5359 | 5590 | 5586 | 5572 | 5688 | 5957 | 6134 | 6438 | 6977 | 7320 |

## TABLE 2

**GRAZING LIVESTOCK UNITS (GLU's) ON IRISH (26 Counties) FARMS, 1861–1974** — **THOUSANDS**

| | 1861 | 1951 | 1961 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | (Est) 1974 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cattle | 1828 | 2779 | 2972 | 3064 | 3147 | 3389 | 3507 | 3529 | 3532 | 3605 | 3758 | 3884 | 4082 | 4401 | 4603 |
| Horses | 475 | 367 | 224 | 190 | 180 | 172 | 158 | 143 | 134 | 125 | 124 | 117 | 112 | 103 | 100 |
| Sheep | 336 | 262 | 453 | 469 | 495 | 501 | 466 | 424 | 408 | 401 | 408 | 419 | 426 | 422 | 420 |
| TOTAL | 2639 | 3408 | 3649 | 3723 | 3822 | 4062 | 4131 | 4096 | 4074 | 4131 | 4290 | 4420 | 4620 | 4926 | 5123 |

## TABLE 3

Total Grassland and Grassland per GLU, 1861–1974

| | Total Grassland ('000 acres) | Acres per GLU |
|---|---|---|
| 1841 | 8,641 | 3.274 |
| 1951 | 9,871 | 2.896 |
| 1961 | 9,669 | 2.650 |
| 1963 | 9,900 | 2.659 |
| 1964 | 9,975 | 2.610 |
| 1965 | 10,018 | 2.466 |
| 1966 | 10,151 | 2.457 |
| 1967 | 10,111 | 2.471 |
| 1968 | 10,107 | 2.481 |
| 1969 | 10,141 | 2.455 |
| 1970 | 10,098 | 2.354 |
| 1971 | 10,091 | 2.283 |
| 1972 | 10,153 | 2.198 |
| 1973 | 10,230 | 2.077 |
| 1974 (est.) | 10,250 | 2.001 |

## TABLE 4

Irish Cow Herd, 1953–1963, and annually to 1974.

| Year | Cows for Creamery milk production (CD) (000) | Cows for liquid milk production (CI) (000) | Total milch cows (000) | Suckling cows (Cs) (000) | Total cows (Cw) (000) |
|---|---|---|---|---|---|
| 1953 | 625.4 | 107.1 | 732.5 | 440.2 | 1,173.7 |
| 1963 | 741.4 | 126.2 | 867.6 | 454.9 | 1,322.5 |
| 1964 | 791.0 | 132.2 | 923.2 | 476.7 | 1,399.9 |
| 1965 | 854.1 | 142.3 | 996.4 | 551.0 | 1,547.4 |
| 1966 | 894.9 | 144.6 | 1,039.5 | 542.8 | 1,582.3 |
| 1967 | 955.3 | 142.1 | 1,097.4 | 470.5 | 1,567.9 |
| 1968 | 1,000.3 | 140.4 | 1,140.7 | 466.7 | 1,607.4 |
| 1969 | 998.9 | 144.6 | 1,143.3 | 513.8 | 1,657.1 |
| 1970 | 955.2 | 147.5 | 1,102.7 | 610.4 | 1,713.1 |
| 1971 | 962.8 | 145.5 | 1,108.3 | 673.6 | 1,781.9 |
| 1972 | 1,041.5 | 145.5 | 1,187.0 | 707.9 | 1,894.9 |
| 1973 | 1,145.7 | 145.5 | 1,291.2 | 812.8 | 2,104.0 |
| 1974 | 1,241.5 | 145.5 | 1,387.0 | 813.0 | 2,200.0 |

Source : D. J. Buttimer, "Supply Response in the Irish Dairy and Beef Herds, 1953–1970", **Irish Journal of Agricultural Economics and Rural Sociology**, Vol. 4, No. 1, to 1970. Department of Agriculture and Fisheries 1971 and 1972. Own estimates 1973 and 1974.

## TABLE 5

**Persons Engaged in Agriculture in Certain Years**

| Year | Persons in Agriculture (Thousands) |
|---|---|
| 1926 | 652 |
| 1951 | 496 |
| 1963 | 363 |
| 1966 | 334 |
| 1972 | 267 |
| 1973 | 261 |

Source : Report on Full Employment (Pr. 9188) and Review of 1973 and Outlook for 1974, (Prl. 3774).

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## TABLE 6

**SOME AGRICULTURAL INDEX NUMBERS**

| YEAR | A. Cattle and Milk Prices | B. Crop product Prices | C. Value of Crop Output per Acre |
|---|---|---|---|
| 1959 | 100.00 | 100.00 | 100.00 |
| 1960 | 99.33 | 86.73 | 88.49 |
| 1961 | 103.96 | 87.95 | 86.91 |
| 1962 | 102.13 | 87.95 | 90.69 |
| 1963 | 103.39 | 93.22 | 84.08 |
| 1964 | 114.19 | 100.13 | 91.63 |
| 1965 | 118.68 | 96.18 | 80.57 |

| YEAR | D. Grassland Product Prices (A)/Value of Crop Output per Acre (C) | E. Consumer Price Index | F. Agricultural Wages |
|---|---|---|---|
| 1959 | 100.00 | 100.00 | 100.00 |
| 1960 | 112.25 | 102.32 | 103.89 |
| 1961 | 119.62 | 104.59 | 106.82 |
| 1962 | 112.61 | 111.68 | 119.19 |
| 1963 | 122.97 | 115.01 | 119.19 |
| 1964 | 124.62 | 124.29 | 141.32 |
| 1965 | 147.30 | 131.01 | 156.38 |

H. Lamb and Fat Cattle Prices

| YEAR | 2 yr Old Fat Cattle | Lambs |
|---|---|---|
| 1950 | 100.00 | 100.00 |
| 1956 | 114.81 | 93.57 |
| 1960 | 132.42 | 90.69 |
| 1961 | 136.63 | 84.26 |
| 1962 | 139.53 | 83.81 |
| 1963 | 134.92 | 93.13 |
| 1964 | 150.00 | 114.41 |
| 1965 | 163.17 | 100.44 |

## TABLE 7

**Grassland Product/Fertilizer Price Ratio**

| | |
|---|---|
| 1959 | 100.00 |
| 1960 | 111.57 |
| 1961 | 125.95 |
| 1962 | 123.73 |
| 1963 | 123.03 |
| 1964 | 132.73 |
| 1965 | 130.75 |

## TABLE 8

**Calf Prices and 2–3 Year Old Fat Cattle Prices, 1914 – 1972**

| | (1) CALF PRICE shillings | (2) 2–3 Yr CATTLE shillings | (3) (1) as per cent of (2) % |
|---|---|---|---|
| 1914–18 | 75.70 | 468.5 | 16.16 |
| 1918–22 | 76.50 | 622.25 | 12.29 |
| 1922–26 | 62.25 | 411.50 | 15.13 |
| 1926–30 | 67.00 | 373.50 | 17.94 |
| 1927–31 | 66.75 | 364.50 | 18.31 |
| 1931–35 | 44.75 | 237.75 | 18.82 |
| 1936–40 | 58.75 | 296.75 | 19.80 |
| 1941–45 | 69.50 | 474.00 | 14.66 |
| 1945–49 | 100.75 | 659.50 | 15.28 |
| 1950 | 173.50 | 850.50 | 20.40 |
| 1956 | 208.50 | 976.50 | 21.35 |
| 1960 | 234.25 | 1126.25 | 20.80 |
| 1961 | 244.00 | 1162.00 | 21.00 |
| 1962 | 264.75 | 1186.67 | 22.31 |
| 1963 | 277.00 | 1147.50 | 24.14 |
| 1964 | 336.25 | 1275.75 | 26.36 |
| 1965 | 392.00 | 1387.75 | 28.25 |
| 1966 | 261.75 | 1272.50 | 20.57 |
| 1967 | 206.85 | 1286.50 | 16.08 |
| 1968 | 326.20 | 1507.78 | 21.63 |
| 1969 | 426.02 | 1572.61 | 27.09 |
| 1970 | 498.61 | 1690.56 | 29.49 |
| 1971 | 547.47 | 1861.31 | 29.41 |
| 1972 | 800.40 | 2213.10 | 36.17 |

## TABLE 9

**Estimated Annual Income of Dairy Cows (Yd), 1962 – 1973**

| | VALUE OF MILK PER GALLON | MILK OUTPUT PER COW | VALUE OF CALF | CALVED HEIFER SUBSIDY SCHEME | TOTAL INCOME PER COW |
|---|---|---|---|---|---|
| | p | £ | £ | £ | £ |
| 1962 | 8.35 | 49.27 | 14.33 | | 63.60 |
| 1963 | 8.70 | 51.33 | 14.99 | | 66.32 |
| 1964 | 9.52 | 56.17 | 17.86 | 15.00 | 89.03 |
| 1965 | 9.73 | 57.41 | 21.27 | 12.50 | 91.18 |
| 1966 | 10.35 | 61.07 | 13.78 | 10.00 | 84.85 |
| 1967 | 11.00 | 64.90 | 10.89 | 7.50 | 83.29 |
| 1968 | 11.10 | 65.49 | 17.17 | 5.00 | 87.66 |
| 1969 | 11.00 | 64.90 | 22.42 | | 87.32 |
| 1970 | 10.50 | 61.95 | 26.24 | | 88.19 |
| 1971 | 11.73 | 68.62 | 28.81 | | 97.43 |
| 1972 | 15.22 | 89.80 | 42.12 | | 131.92 |
| 1973 | 20.10 | 125.16 | 53.00 | | 178.16 |

Source : Value of milk per gallon is derived from CSO annual estimates of the value of agricultural output, except for the years 1969, 1970 and 1971. A slight downward adjustment is made in those years to take account of the effect of the multi-tier milk price system, which caused large scale producers– who had the greatest potential to expand output – to get less than the average price per gallon.

Average yields per cow are taken as 590 gallons per annum throughout.

Calf values are obtained from the Department of Agriculture and Fisheries' monthly *Farm Bulletin,* which quotes monthly ranges of calf prices. The mid-point in the range has been taken as the current value of calves.

The Calved Heifer Subsidy Scheme had a decreasing effect on income per cow after the initial year, as opportunities further to expand cow numbers declined. This consideration underlies the declining income per cow from this source up to 1968, when the scheme ceased to operate.

## TABLE 10

**Estimated Annual Income of Suckling Cows (Ys), 1962 – 1973**

| | Value of 6½ cwt bullock | Income per cow from Calved Heifer Subsidy Scheme or Beef Incentive Scheme | Total income per cow |
|---|---|---|---|
| | £ | £ | £ |
| 1962 | 43.56 | | 43.56 |
| 1963 | 43.16 | | 43.16 |
| 1964 | 50.59 | 15.00 | 65.59 |
| 1965 | 53.70 | 10.00 | 63.70 |
| 1966 | 47.14 | 5.00 | 52.14 |
| 1967 | 45.52 | | 45.52 |
| 1968 | 57.01 | | 57.01 |
| 1969 | 62.23 | 18.00 | 80.23 |
| 1970 | 66.67 | 18.00 | 84.67 |
| 1971 | 73.38 | 18.00 | 91.18 |
| 1972 | 94.94 | 18.00 | 112.94 |
| 1973 | 125.45 | 18.00 | 143.45 |

Source : CSO, Irish Statistical Bulletin for price of 6½ cwt bullocks. See note to Table 9 for treatment of effect of Calved Heifer Subsidy Scheme.

## TABLE 11

**Estimated Income from Rearing a Calf to 10½ cwt BULLOCK (Yb)**

| | Value of 10½ cwt bullock | Cost of calf | Value Added |
|---|---|---|---|
| | £ | £ | £ |
| 1962 | 66.39 | 14.33 | 52.06 |
| 1963 | 64.02 | 14.99 | 49.03 |
| 1964 | 76.50 | 17.86 | 58.64 |
| 1965 | 82.02 | 21.27 | 60.75 |
| 1966 | 77.28 | 13.78 | 63.50 |
| 1967 | 78.12 | 10.89 | 67.23 |
| 1968 | 91.55 | 17.17 | 74.38 |
| 1969 | 95.46 | 22.42 | 73.04 |
| 1970 | 102.61 | 26.24 | 76.37 |
| 1971 | 113.48 | 28.81 | 84.67 |
| 1972 | 134.88 | 42.12 | 92.76 |
| 1973 | 183.30 | 53.00 | 130.30 |

## TABLE 12

**Estimated Income from Fattening a 6½ cwt Bullock to 10½ cwt (Yf)**

| | Value of 10½ cwt bullock | Cost of 6½ cwt bullock | Value Added |
|---|---|---|---|
| | £ | £ | £ |
| 1962 | 66.39 | 43.56 | 22.83 |
| 1963 | 64.02 | 43.16 | 20.86 |
| 1964 | 76.50 | 50.59 | 25.91 |
| 1965 | 82.02 | 53.70 | 28.32 |
| 1966 | 77.28 | 47.14 | 30.14 |
| 1967 | 78.12 | 45.52 | 32.60 |
| 1968 | 91.55 | 57.01 | 34.54 |
| 1969 | 95.46 | 62.23 | 33.23 |
| 1970 | 102.61 | 66.67 | 35.94 |
| 1971 | 113.48 | 73.38 | 40.10 |
| 1972 | 134.48 | 94.94 | 39.94 |
| 1973 | 183.30 | 125.45 | 57.85 |

## TABLE 13

**Relative Incomes Dairying and Cattle Rearing (Yd/Yb); and Suckling and Cattle Fattening (Ys/Yf), 1962–1973**

| | Yd/Yb | Ys/Yf |
|---|---|---|
| | % | % |
| 1962 | 122 | 193 |
| 1963 | 135 | 207 |
| 1964 | 152 | 253 |
| 1965 | 154 | 225 |
| 1966 | 142 | 173 |
| 1967 | 113 | 140 |
| 1968 | 111 | 165 |
| 1969 | 120 | 241 |
| 1970 | 116 | 236 |
| 1971 | 115 | 227 |
| 1972 | 142 | 283 |
| 1973 | 137 | 248 |

## TABLE 14

**Annual Average Prices, 1963–1973, of Calves, 6½ cwt Bullocks and 10½ cwt Bullocks**

| | Calves less than 1 month | Bullocks 6½ cwt | Bullocks 10½ cwt |
|---|---|---|---|
| | £ | £ | £ |
| 1963 | 14.99 | 43.16 | 64.02 |
| 1964 | 17.86 | 50.59 | 76.50 |
| 1965 | 21.27 | 53.70 | 82.02 |
| 1966 | 13.78 | 47.14 | 77.28 |
| 1967 | 10.89 | 45.52 | 78.12 |
| 1968 | 17.17 | 57.01 | 91.55 |
| 1969 | 22.42 | 62.23 | 95.46 |
| 1970 | 26.24 | 66.67 | 102.61 |
| 1971 | 28.81 | 73.38 | 113.48 |
| 1972 | 42.12 | 94.94 | 134.48 |
| 1973 | 53.00 | 125.45 | 183.30 |

## TABLE 15

**Bank and ACC Advances to Agriculture, 1964 – 1974**

| Financial Year ending | (1) Associated Banks total non-govt. advances | (2) Of which to agriculture | (3) ACC advances | (4) (1) + (3) | (5) (2) + (3) | (6) (5) as % of (4) |
|---|---|---|---|---|---|---|
| | £mn | £mn | £mn | £mn | £mn | % |
| 1964 | 253.8 | 44.0 | 7.0 | 260.8 | 51.0 | 19.54 |
| 1965 | 288.5 | 47.8 | 11.3 | 299.8 | 59.1 | 19.73 |
| 1966 | 278.1 | 46.6 | 16.1 | 294.2 | 62.7 | 21.32 |
| 1967 | 295.2 | 48.4 | 18.2 | 313.4 | 66.6 | 21.26 |
| 1968 | 334.6 | 53.5 | 20.1 | 354.8 | 73.6 | 20.75 |
| 1969 | 405.9 | 62.7 | 20.1 | 427.9 | 84.8 | 19.82 |
| 1970 | 422.3 | 62.1 | 24.9 | 447.2 | 87.0 | 19.45 |
| 1971 | 505.9 | 76.6 | 28.4 | 534.3 | 104.9 | 19.64 |
| 1972 | 466.1 | 85.5 | 37.3 | 503.4 | 122.8 | 24.40 |
| 1973 | 623.0 | 125.1 | 54.3 | 677.3 | 179.4 | 26.49 |
| 1974 | 734.0 | 146.7 | 83.4 | 817.4 | 230.1 | 28.15 |

Source : Annual Reports of Irish Central Bank and ACC.

## TABLE 16

**Summary of Data Determining Young Cattle Prices (Ps), 1963 – 73**

| | Ps Price of 6½ cwt bullocks in preceding year | Pm Price of 10½ cwt bullocks in preceding year | S Acres of grassland per GLU | GF Grassland product/ fertilizer price ratio | B Proportion of total non-govt. advances for agrl. |
|---|---|---|---|---|---|
| | £ | £ | Acres | % | % |
| 1963 | 43.56 | 66.39 | 2.650 | 118.9 | 19.54 |
| 1964 | 43.16 | 64.02 | 2.659 | 130.1 | 19.73 |
| 1965 | 50.59 | 76.50 | 2.466 | 130.0 | 21.32 |
| 1966 | 53.70 | 82.02 | 2.451 | 126.5 | 21.26 |
| 1967 | 47.14 | 77.28 | 2.469 | 128.2 | 20.75 |
| 1968 | 45.52 | 78.12 | 2.481 | 127.9 | 19.82 |
| 1969 | 57.01 | 91.55 | 2.448 | 134.0 | 19.45 |
| 1970 | 62.23 | 95.46 | 2.353 | 142.6 | 19.64 |
| 1971 | 66.67 | 102.61 | 2.282 | 145.1 | 24.40 |
| 1972 | 73.38 | 113.48 | 2.194 | 171.7 | 26.49 |
| 1973 | 94.94 | 134.48 | 2.077 | 205.0 | 28.15 |