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Livestock

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SOME IMPLICATIONS OF THE HERD BASIS METHOD OF VALUING LIVESTOCK

Second (Revised) Edition

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It must however be stressed that interpretations in the report represent the author's own views.

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SOME IMPLICATIONS OF THE HERD BASIS METHOD OF VALUING LIVESTOCK

INTRODUCTION

During the period 1971-73 the market value of cattle has risen rapidly in contrast to the preceding 12 years which had seen only a very slight increase in price levels.

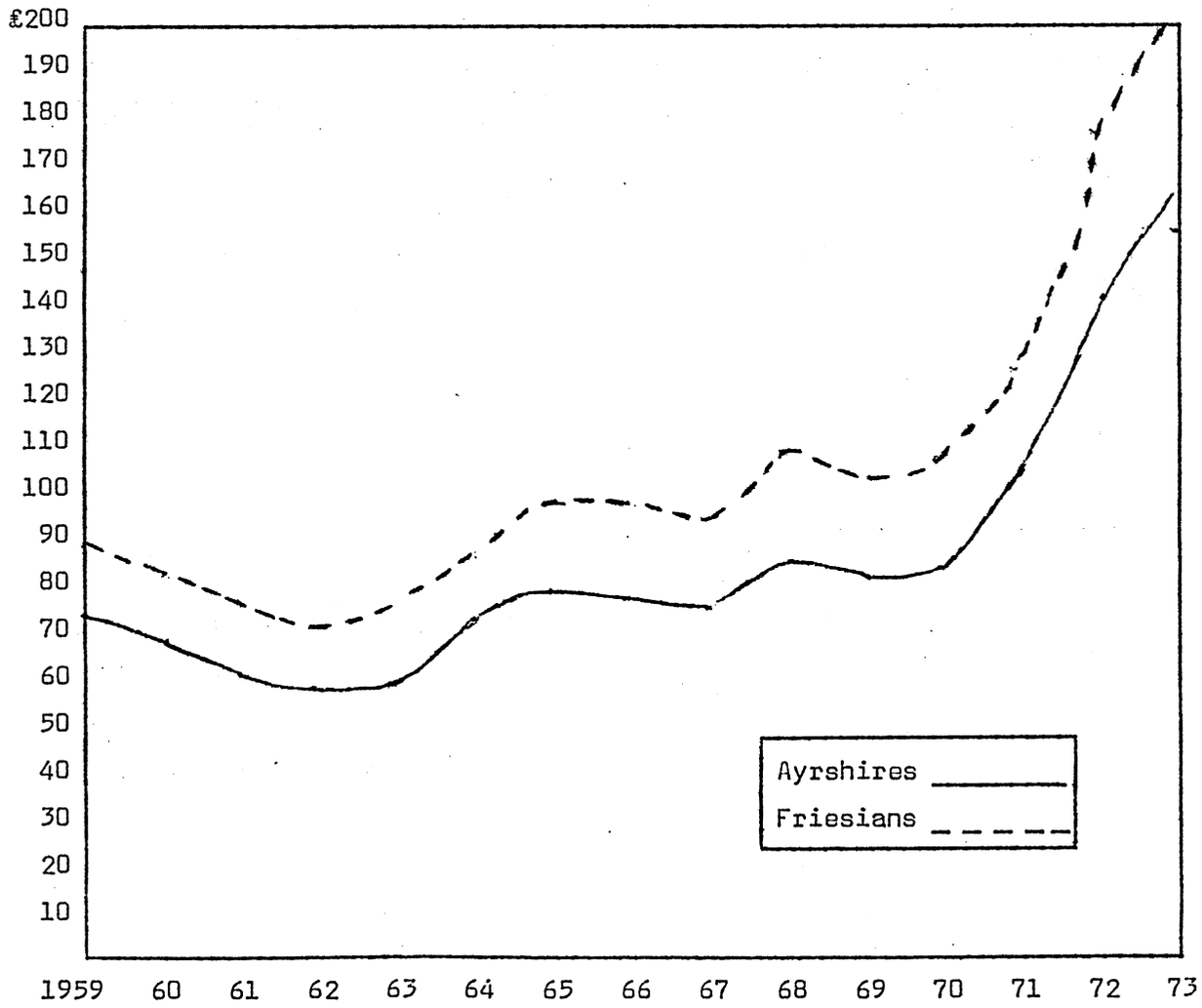
Taking Ayrshire cows as an example the average sale price calculated from DAFS statistics has risen from £76 in 1967 to £157 in 1973!

Details of the rise in calving cow prices for Ayrshire and Friesian cows are shown graphically in Figure 1 and in tabular form in Appendix II.

It is of course likely that livestock prices will ease from time to time as indeed has happened in 1974 but it seems probable that the overall drift of prices will continue upward if only because of the continuing inflation associated with the decline in the purchasing power of the £ and the question arises of how the rise in livestock values is likely to affect farm profit and loss accounts and balance sheets.

FIGURE 1

THE AVERAGE PRICE OF CALVED AND CALVING COWS 1959-73 SCOTLAND



GENERAL PRINCIPLE OF LIVESTOCK VALUATION

(TRADING BASIS)

The general principle of livestock valuation for taxation purposes is that animals should be valued at cost of production or at market value, whichever is the lower.

The term market value is self-explanatory but what is meant by "cost of production"? In this context it has not been closely defined but it appears that for accounts prepared for taxation the "cost of production" is used widely for livestock valuations. The precise level of costs of production on any particular farm is agreed in principle between the farmer (and his accountant) and the Inland Revenue. Costs are revised annually and if there has been a change in the level of cost of rearing livestock then the cost-value of young stock is brought into line with the new cost situation. This affects the cost-value at which heifers are brought into the herd in the current year and will also have a cumulative effect in later years as animals reared at the changed cost levels become mature and enter the breeding herd.

If for example heifers have been brought into a herd at £60 agreed cost of production in say 1970 and that it has been agreed that in that year on that farm that costs increased £5 per head for stock 0-1 years old, £2 per head for stock 1-2 years old and £3 for stock over 2 years old, then assuming no further changes in cost occur the value at which heifers are brought into the herd will be:

1970	£60 per heifer;	1971	£60 + £3 = £63
1972	£60 + £2 + £3 = £65;	1973	£60 + £5 + £2 + £3 = £70

WHERE COST IS NOT KNOWN

There may be occasions when the basic rule cannot be applied because the cost of production cannot be ascertained. If that is the case the figure at which livestock are valued is to be taken as:

Cattle	60% Market Value	(from 30th September, 1972)
Sheep and Pigs	75% Market Value	

The cattle figure at 60% market value must not be lower than the opening valuation of a similar class of stock in the same accounting year. It must be emphasised that this valuation using a percentage of market value only comes into use when no cost of production is known.

For many farm accounts an agreed cost of production figure has been used so that the "60% or 75% Market Value" figure does not arise.

HERD BASIS

As an alternative to the basic principle of valuation, where a fermer keeps a breeding herd or flock of production livestock he has the choice of treating his breeding animals either as ordinary trading livestock or alternatively of treating them as "fixed capital assets" i.e. he can choose what is known as Herd Basis.

If herd basis is chosen the breeding stock values do not affect the profit and loss account since (unless numbers in the flock or herd increase) the "per head" values of stock are held at the same value over the whole period of farming. The following animals can be treated as production livestock and are eligible for Herd Basis:

Cows and Bulls

Ewes and Rams

Replacement Ewe Hoggs on Hill Farms only

Sows and Boars

Laying Pullets and Stock Cockerels

Bees (!!)

Thoroughbred horses kept for breeding purposes

All other livestock must be treated as trading livestock so that e.g. in the case of a dairy herd all the young stock up to and including heifers in calf are treated as trading stock.

With trading stock any changes in value and/or cost of production over a period are reflected in the profit and loss account (by increasing or decreasing per head values) whereas with stock on herd basis the profit and loss account is not directly affected by changes in cost of production and/or market value.

GENERAL ADVANTAGE OF HERD BASIS

When a herd or flock on herd basis is finally sold the difference between the final sale price and the book value in the farm accounts is counted as a capital gain or loss.

The advantage here is that if there is a capital gain it will not be taxable for income tax purposes nor will it be taxable for under Capital Gains Tax since breeding livestock are considered to be "wasting assets". Thus, if over the period of existence of the herd or flock, prices have risen and the quality of the livestock has not deteriorated then it will have proved advantageous to be on herd basis. Conversely if over a period of time livestock prices have fallen and/or the quality of the herd has decreased then it would have been better to have remained on ordinary trading basis and not to have chosen herd basis.

Until 1973, farmers only had an opportunity of electing for herd basis when:

a) They started up a permanent breeding herd or flock.

b) When the business ownership altered. e.g. When a partnership was formed.

However, because of the rapid increase of cattle values in 1972/3, the Inland Revenue have agreed with the farmers' unions that any farmer having an eligible herd or flock will be given an additional opportunity to elect for herd basis between 25th July, 1973 and 6th April, 1976. In making this concession the Inland Revenue have also agreed that normally in deciding on election to herd basis farmers will not be obliged to drastically raise the values of breeding livestock going on to herd basis i.e. the values used previously for trading basis will usually be accepted as a basis for values on herd basis. This means that there should be no 'paper profits' arising simply because of the changeover.

The question to be faced by many farmers on trading basis is therefore "Should I elect to go on Herd Basis or do I remain on Trading basis?"

HERD BASIS OR TRADING BASIS?

CASE 1

Farmer whose herd or flock size is not likely to change to any extent.

On Trading Basis

For this example a number of assumptions have to be made:

1. The herd has been established for 10 to 15 years.
2. There are 100 cows in the opening and closing valuation of the current financial year.
3. The value of cows on agreed "cost of production" basis is £60/head in the opening valuation.
4. The cost of production of 20 home bred heifers brought into the herd in the year was agreed to be £80/head.
5. 19 cast cows were sold in the year for a total of £1,900.

On the basis of these facts the relevant entries in the profit and loss account or gross output statement would be:

	£			£
Purchases	-	Sales		
Opening Valuation		19 cows x £100		1900
100 cows x £60	6000	1 death		-
	6000	Closing Valuation		
Gross Output	2300	80 cows x £60	£4800	
		20 cows x £80	1600	
		(= 100 cows x £64)		6400
	8300			8300

The cost of production of the 20 replacement heifers would be included within the farm costs for that year.

Herd Basis

Using the same assumptions except that the opening valuation of 100 cows is taken at Herd Basis values of £45/head (being an orginal cost of production figure) the comparable figures are:

	£		£
Purchases	-	Sales	
Opening Valuation		19 cows x £100	1900
100 cows x £45	4500	Closing Valuation	
	4500	100 cows x £45	4500
Gross Output	1900		
	6400		6400

The Gross Output at £1,900 is £400 lower than that arising under Trading basis. This is because on Herd Basis the "paper profit" arising from increased valuation is excluded since the cow herd is kept at the same value in the opening and closing valuation. Strictly speaking for herds on herd basis the value of the cows should not even have appeared in the Gross Output Statement or Profit and Loss Account at all but in practice many accountants do include them since it avoids the necessity of "adding back" costs if herd numbers increase.

In this example, if the farm as a whole made a taxable profit, the tax saving from herd basis on the illustration given above at 33% rate of taxations:

£400 x 33% = £132 tax saving in the succeeding year.

Thus, Herd Basis may be a hedge against paper profits which might otherwise arise from increased valuations due to increased costs of production (or 60% market value if production cost is not known). It is because both costs and market values are tending to increase markedly that the advantages of herd basis are becoming more obvious.

CASE 2

HERD INCREASING IN SIZE

In this example we will assume that the herd is the same as that of Case 1, but that 10 heifers costing £1,500 are purchased during the year and that these are extra heifers and not just replacement heifers. In this situation the relative advantages and disadvantages of Herd Basis and Trading Basis may be altered if the value of the (calved) heifers in the closing valuation on Trading Basis can be reduced on the assumption that their true value is lower than the purchase price. If, for instance, at the end of the year on Trading Basis the closing valuation of the heifers (now calved and incorporated into the herd) is put at £110/head then the decrease in the heifers' value is £40/head and this lowers the gross output figure and represents a lowering of the 'paper profit' figure by £400.

On herd basis however, whilst the advantages arising from Case 1 still apply, the 10 additional heifers must be shown at their purchase price of £150 each in the Closing Valuations and the lowering of 'paper profit' secured under Trading Basis will not be obtained on Herd Basis.

In these circumstances whilst the long term advantages of herd basis will still apply, in the short run there may be little advantage either way and in some cases the advantage may be with Trading Basis.

CASE 3

AT THE END OF A PERIOD OF FARMING

Let us assume that on Trading Basis there are 100 cows in the herd and that they are valued at £70 each in the opening valuation of the final year. The whole herd is sold and the cows realise an average of £130/head i.e. £13,000.

The gain in the final year arising from the sale of the cows is:

Sale Price £13,000 - Opening Valuation £7,000 = £6,000

This will contribute towards the final year's profit which will be subject to income tax.

Herd Basis:

Taking the same situation and assuming that the 100 cows are valued at £45 each in the opening valuation (based on original cost figure).

When the whole herd is sold for £13,000 the gain arising from the sale of the cows is:

Sale Price	£13,000	-	Opening Valuation	£4,500	=	£8,500

This £8,500 will not be added to the final year's profit but will be counted as a capital gain. It will not be subject to capital gains tax. Thus, quite apart from any smaller short term advantages it will (in the example given) have proved very advantageous to have elected for herd basis.

DISADVANTAGES OF HERD BASIS

1. DECREASE IN VALUE

An example is given in Case 4.

CASE 4

A farmer buys in 50 cows at £150 each (total cost £7,500). After a short period of say 2 years he sells the herd and the cows sold realise an average of only £120 each (total sale £6,000).

In this case the relevant final year's figures would be:

Trading Basis

There would be a loss on sale of £30/cow, this will be treated as a loss in the final accounts and may thus offset any profits arising from other sections of the farm business.

Herd Basis

The loss on sale of £30/cow will be treated as a capital loss and cannot be used to offset profits for income tax purposes. It has therefore not been advantageous in this case to have elected for Herd Basis.

2. RIGIDITY OF HERD BASIS

There may be times when because a farmer is on Herd Basis he is deterred from modifying or changing his system of farming to take advantage of a particular situation. This loss of flexibility could be a disadvantage.

3. ARE EXTRA RECORDS NECESSARY?

Little extra work is required in relation to herd basis and there is really no disadvantage on this score.

On going on to Herd Basis a farmer has to record the basic numbers of breeding animals and the herd value. (Previous 'book' value will normally be used). In subsequent years at the date of closing valuation the values will be those of the original herd unless the herd bas increased in numbers.

Extra (i.e. additional) animals home bred will be entered at estimated cost. The time required in deciding upon estimated cost is effort well spent and is in any case no more than is required if the herd is on trading basis.

WHAT TO DO

If you think that the worth or value of your herd or flock is likely to increase in future years* then it will generally be worth while electing for Herd Basis whilst, if you think the value of your herd is likely to decline,* it may be better to remain on Trading Basis. If your herd size is increasing it may prove advisable to delay an election to Herd Basis but even so, remember that your chance of election has to be taken up before April 6th, 1976. The continuing decline in the value of the £ means of course that herd values are generally tending to increase and this makes Herd Basis a more attractive proposition for many farms.

*i.e. an increase or decrease on the present 'book' value accepted in the financial account for taxation purposes.

SOME OTHER POINTS ABOUT HERD BASIS

A. Normal replacement of Breeding Stock

When breeding livestock are replaced, the cost of replacement is shown in the profit and loss account (or gross output calculation). This applies equally whether the herd is on Herd Basis or on Trading Basis.

e.g. If a breeding herd consists of 80 cows and during the year 17 cows are culled, the sale price of the 17 cows will appear in the profit and loss account (or gross output statement). Similarly the cost of rearing the 17 replacement heifers will be included within the production costs of food, labour etc. in the profit and loss account. Replacement cost is in this way rather akin to depreciation on equipment.

Equipment is a fixed asset and the item shown in the profit and loss account in relation to it is equipment depreciation. In a similar way a breeding herd or flock can be regarded as a fixed asset in which case herd replacement costs are equivalent to herd depreciation or appreciation and are shown in the profit and loss account.

B. Animals of better quality

Where stock on herd basis are replaced by animals of better quality that part of the cost considered to be an improvement cannot be charged as an expense for taxation purposes but is counted as a capital expense and the closing valuation for herd basis purposes must show the replacement animals at the original herd basis figure plus the 'better quality' value.

e.g. A farmer has a bull valued in the books at £80 (Herd Basis value). The bull died (carcase value £2) and is replaced by another bull costing £600. It is agreed that the new bull is of better quality and that a comparable bull to the one which died would cost £400. There is thus a 'betterment' value of £200. In this case the relevant items in the accounts are:

	£		£
New Bull	600	Sale of Old Bull	2
O.V. Bull	80	C.V. of Bull £80 + £200 Betterment	280

The closing value of the bull is £80 Original Herd Basis Value + £200 'betterment'. A converse occurs following a major disease outbreak when animals on Herd Basis are replaced by stock of worse or inferior quality. In that case the amount shown as a receipt from the sale (or insurance value) need only equal the cost of the new animals.

C. Replacement of Whole Herd

The new herd is treated as a continuation of the old herd and unless the new herd is substantially larger than the old herd the normal rules for Herd Basis apply i.e. the cost of replacement animals and the sale price of animals sold must be included in the Profit and Loss account. The cost of any animals increasing the herd size however must not affect the Profit and Loss account and such extra animals will be treated as a capital expense and shown at cost price in the closing valuation (similar to Case 2).

If the new herd is 'substantially' smaller than the old herd then any profit or loss arising from the animals not replaced is not brought into the accounts but is treated as a capital gain or loss.

D. Small fluctuations in Herd Size

e.g. A herd of 54 cows is valued at cost (say £60 each)

At the end of a year the herd is reduced from 54 to 52 cows. In this case the difference between the book value and the sale price of the animals sold is treated as a normal trading revenue and is not treated as a capital gain or loss. At the same time the capital value of the herd is reduced to 52 animals.

If subsequently in a year or two the number rises back to 54 then the 54 animals will normally again all stand at the original Herd Basis Value of £60 each.

If the number increases to say 57 cows then the herd basis values will be expressed as

54 Cows at £60
3 Cows at £63 (Cost of additional animals)

E. Safeguards to prevent abuse of Herd Basis

If a farmer on Herd Basis sells his herd (or flock) and does not establish a new herd of the same class of stock for 5 years then he has the right to establish a new herd and to choose Herd Basis. If, however, he establishes a new herd within 5 years of selling the old herd, then the new herd will be treated as a continuation of the old herd and any capital gains arising from the sale of the old herd will be foregone. (This will not however affect the long term herd basis advantage since in continuing, the new herd will stand at the original Herd Basis Values of the old herd.)

F. Compulsory slaughter of a Whole Herd

In this case any income and/or compensation received will be treated as a capital receipt (for Herd Basis herds) until such time as a new herd or flock is established. When the new herd or flock is set up the compensation and/or income will be credited and set against the purchase price of the new animals. There will be the usual considerations of the quality of the animals i.e. are the new animals of better or worse quality than those originally slaughtered?

G. Management Accounts

Herd Basis considerations do not concern or directly affect accounts prepared or used for management purposes. The only effect is through the cash flow since the amount of taxation may be affected. In management accounts valuations of livestock are normally near to market values. It is useful to consider a breeding herd or flock as fixed capital in the balance sheet, but for management purposes such valuations must be revised frequently and brought into line with current market values. Sometimes this increase in valuation is done 'between years' i.e. between the closing valuation of one year and the opening valuation of the succeeding year.

e.g.

1972/3	Closing Valuation	100 cows x £120	=	£12,000
1973/4	Opening Valuation	100 cows x £140	=	£14,000

The revaluation gain of £14,000-£12,000 = £2,000 has in this instance taken place 'between' the years and not within any one financial year.

Whether or not this method is used the aim in accounts used for managements must be (a) to have valuations at realistic levels and (b) to avoid factors which make year to year comparison difficult.

APPENDIX I

A SUMMARY OF EFFECT OF CHANGES IN A HERD ON 'HERD BASIS'

Change	Effect on Taxation Profit	Treatment Of Animals
Herd Size Unchanged Replacements Purchased	Show cost of replacement and sale of old cows in Profit/Loss Account.	As Trading
Herd Size Unchanged Replacements Home Bred	Show sale of old cows in Profit/Loss Account. (Costs of replacements already as part of feed, labour etc.)	As Trading
Herd Size Increased by a few Animals Purchased	Must not let cost of new Animals affect Profit and Loss Account. They are therefore shown at cost in closing valuation.	As Capital
Herd Size Increased by a few Animals Home Bred	Estimated cost of rearing extra Animals is completely offset by showing their value at cost in the closing valuation	As Capital
Herd Size Decreased by a few Animals	Receipts shown in Profit/Loss Account.	As Trading
Herd Size Increased Substantially (over 20%)	Increased Animals regarded as Capital Expense. Purchase or cost not allowed to affect Profit and Loss Account. They are shown in closing valuation at cost.	As Capital
Herd Size Decreased Substantially (over 20%)	Animals not replaced regarded as sale of capital asset. Numbers must not be built up for 5 years.	As Capital

APPENDIX II

CALVING COWS

UNWEIGHTED AVERAGE PRICE from D.A.F.S. Weekly Market Returns per Cow 1959-1973

Year	Ayrshires	Friesians
	£	£
1959	72	88
1960	68	84
1961	62	78
1962	59	72
1963	61	75
1964	73	88
1965	78	96
1966	77	96
1967	76	94
1968	88	107
1969	85	103
1970	87	106
1971	109	128
1972	140	176
1973	156	205

APPENDIX III

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1. LEGAL

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This is a very useful summary at depth on this complex subject.