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AGRICULTURAL PRICING AND STRUCTURAL POLICY. II. MICRO-ASPECTS OF PRICING POLICY. []

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1. INTRODUCTION

In the manufacture or production of a product the available production factors are brought together in the production process.

These production factors, viz *land* and the accompanying natural resources, *capital*, *labour* and *management*, are inter-dependent and essential for manufacture or production and are applied in the production process at a "price" (or cost) at which the right to use them is acquired.

If manufacture or production is to be continued at a profit, the remuneration for each production factor should be sufficient for the right of use or ownership of such production factor to be retained. In other words, the price of the product manufactured or produced must be such that it compensates for the production factors at an equal or even higher "price" than alternative earnings. At a lower remuneration the production factors will shift to where the alternative earnings are the highest if maximum earnings are accepted as the objective.

In the long term these production factors should therefore be remunerated at a price that will ensure that their right of use or ownership will be retained for the production of a market-orientated product and should be borne in mind in formulating price-fixing policy, particularly in the case of agricultural products, which are largely subject to price control.

2. COSTS OF AN INDUSTRY

The term "costs" or "production costs" has a special meaning in economics which does not always correspond to the meaning attached to the term in ordinary language. Even in the business world this term is not unambiguous. Often the costs of an industry are simply regarded as the actual expenditure on labour, equipment and raw materials, i.e. the total amount paid out on wages, rent, interest on borrowed capital and the maintenance of capital goods, and the difference between the total earnings of the industry and this amount is called "profit".

However, the use of the terms "costs" and "profit" can be very misleading. For example, compare the following two similar industries. One is owned by a person who provides the capital and

acts as manager. The other belongs to a person who makes use of borrowed capital on which interest is payable and who does not manage the concern himself but employs a salaried manager. The "costs" of the first concern, in the general sense of the term, will be much lower than those of the second, which creates the erroneous impression that the former is more "profitable" than the latter.

The economist therefore prefers to include in the costs of production remuneration for the owner's own management or other services (determined on the basis of what he could have earned elsewhere for the same services) and interest on own capital which he has invested in the concern (assessed according to the interest rate he could have earned elsewhere). Another term, such as "paid-out costs" could be substituted for the stricter (and misleading) sense of the term "costs".

The term "normal profit" or "interest" often occurs in this regard. This can be defined as the smallest amount which the capitalist entrepreneur must receive from his concern to motivate him to keep his capital in the concern. This is therefore similar to the interest on own capital referred to above.

In any given industrial field normal profit or interest naturally depends, among other things, on the extent to which capital invested in the concern could be transferred elsewhere. This is often not very easy to do, particularly in the short term, and then the normal profit rate in the specific concern can drop far below the general level before production is discontinued.

To the economist "production costs" therefore means the paid-out costs and the remuneration for own management or other services and the normal profit or interest. Abnormal or pure profit is therefore only obtainable if the total earnings of the industry exceed the costs in this general sense. On the other hand, equality of earnings and costs means that only a normal profit or interest is being earned. (1, pp 174-175).

If all four production factors are remunerated, i.e. if all the expenses mentioned above are taken into account, every farmer cannot automatically claim a profit and there is no justification for the provision of a profit when prices are fixed. (2, p 145).

If all four production factors have been remunerated, no amount can be left over to serve as a profit. If there is a profit or loss, this would

simply mean that one production factor or another was incorrectly remunerated. (3, p 29), (4, p 88).

There is much confusion surrounding this matter and in agriculture "profit" or "gross margin" (term incorrectly used) mean the remuneration for capital and management. If this is not the meaning it is incorrect to talk of "profit" once all four production factors have been remunerated.

Price control cannot, as we have already seen, be regarded as anything other than profit control. The opinion is that price control often provides for an entrepreneur's return and that the latter is an evil and has no place in the economy. (5, p 105).

This does not mean that an entrepreneur's return (profit) as such is an evil - indeed this is the foundation of the whole capitalistic system - but what is regarded as an evil is that with price control provision is sometimes deliberately made for an entrepreneur's return. (6).

The terms "entrepreneur's return" and "management return" should not be confused. For this reason one cannot find fault with the view that a case can be made for paying an amount to the farmer as a remuneration for management, which in respect of controlled agricultural products, should be taken into account as a production cost item when prices are fixed. (7, p 76).

No-one is likely to object to this, since management is just as much a production factor as labour, capital and land and therefore represents part of the cost of producing a certain product. What is at issue here is the question of profit. (6).

As we have already noticed, average production costs are determined by price and not vice versa. Price either attracts or discourages marginal production. (8, p 17) (9, p 4).

From this it may be concluded that if income exceeds costs and a profit is made, increased expenditure will soon wipe out this difference to restore the equilibrium. (6).

Profit is the reward received by an entrepreneur as a result of good luck and/or sound management. Loss is the penalty he has to pay because he was unlucky and/or because of poor management. The former is generally referred to as opportunity profit or loss and the latter as innovator's profit or loss. (2, p 145).

Opportunity profit only arises in the short term. There are many examples of this in agriculture, which is known to be a precarious industry. A farmer who applies his inputs for tomato cultivation on the basis of expected prices will show a loss if the actual price which he received is lower than that on which he based his plans.

It can therefore be expected that the average residue (profit or loss) of producers in a specific area with a certain principal industry will fluctuate from year to year around the zero profit-margin-level, but that these fluctuations will cancel each other over a long period. If a positive balance (profit) is expected to continue indefinitely, this will result in larger entry to the industry or will otherwise be discounted in one or more of the

production factors, particularly land, so that the profit disappears again or, to put it differently, never occurs. (6).

Schumpeter speaks of profit as the surplus of the innovator's monopolistic profit. He says the monopolistic surplus received by the innovator is gradually eroded by competition from potential entrepreneurs who imitate the process. The profit falls away as soon as it has been eroded by competition. (1, p 402), (10, pp 594-595).

In agriculture this can be regarded as the surplus the innovator, i.e. the farmer who effectively applies new ideas, receives in excess of the rate at which managers are normally compensated. However, other farmers soon imitate the improved methods and this specific surplus disappears. However, by this time the progressive farmer has already started a new innovation - if not, he loses his innovator's profit.

A profit is therefore created fortuitously, through uncertain factors or by exceptionally sound management and can be defined as the remaining income for which one cannot contract in advance.

Normally the *average production costs*, including wages, interest, rent and salary per unit product produced are therefore equivalent to the average *price* per unit of the product. Farmers who maintain a higher than average level of efficiency make a profit. Those who maintain a below-average level of efficiency make a loss. Those who are lucky enough to experience abnormally favourable natural conditions, or who received relatively favourable prices, also make a profit, while those who were unlucky suffer a loss. (6).

It would therefore be wrong if the price of an agricultural product, besides its production costs, were also to provide for a profit margin and management remuneration (11, p 27) if the term "profit margin" is taken to mean more than the remuneration of capital (interest).

Similarly the claim to a cost-plus basis is not justified if the "plus" means anything more than a management remuneration and remuneration for capital. This means that there is no fault to be found with production costs, as the term is generally understood, plus these two remunerations, but that "cost plus", where by "costs" is meant the total costs or remuneration of all four production factors plus another remuneration, "profit", in the fixing of agricultural product prices is not justified.

3. LABOUR

The remuneration of labour as a production factor does not create any problems. This is merely the amount spent on labour in the form of cash wages, bonuses, sundry expenditure (medical, insurance etc.) and compensation in kind. Labourers' wages are determined by supply and demand and the relative bargaining power of employers compared to that of employees.

As the amount spent on labour is easily determined, this can be directly deducted from the

amount available for the remuneration of the four production factors.

4. CAPITAL

The remuneration of capital invested in machinery, implements, livestock and industrial inputs creates considerable problems, in respect of firstly its valuation and secondly the interest rate at which this should be remunerated.

Borrowed capital produces fewer problems because the interest rate is known. However, it is much more difficult to determine the rate at which and the amount to which own capital should be remunerated. (12, p 3).

There are various methods according to which these capital goods can be valued, viz -

- (a) valuation at initial costs;
- (b) valuation at present market prices;
- (c) valuation at replacement value;
- (d) capitalisation of profitability;
- (e) valuation at the amount at which the basic value of the farm increases;
- (f) valuation at long-term value. (3, pp 32-35).

When choosing the valuation method it is important to bear in mind the economic cycle during which a specific method is used. For example, it is essential to provide for an inflation allowance when fixing the prices of agricultural products during a high phase of the economic cycle if the valuation method at initial costs is used.

There are divergent opinions on the theory of capital and interest. However, one conclusion emanates from the traditional theory of capital and interest. This clearly shows that interest is not necessarily unjustified profiteering, as was thought in the past. If money is borrowed to purchase or build capital goods and these goods realise a net yield over and above their replacement value, interest, as determined by free competition on the capital or money market is a justifiable remuneration to the capitalist for the use of the production factor of capital in the production process. (1, p 358-381).

The net productivity of a capital project is the annual percentage yield which can be earned by investing capital in a project. The same concept is the market interest rate at which it is only just profitable to undertake the project. (10, pp 575).

When prices are fixed capital should therefore be remunerated at a relevant market-related interest rate with the full realisation that this interest rate may vary considerably in the course of the economic cycle.

5. LAND

The price of land is determined by two basic factors which in turn are each influenced by various factors. These two basic factors are:

- (a) The potential of the land as a production factor. This is its lease value in order to obtain the right to use it (agricultural value).

- (b) The potential of the land as a safe form of investment. This is the capital appreciation value resulting from propriety right (investment value).

Any farmer who wishes to attain the right of use of land by buying the land will necessarily also have to enter the investment market.

As no responsible agricultural financing institution can be expected to grant credit to prospective buyers for the investment possibilities of a land-purchasing transaction, in view of the fact that the income is only realised when the farm is re-sold, the buyer himself must accept responsibility for this part of the purchase transaction. (12, pp 2-3).

Remuneration for the right to use land, and to acquire the fixed improvements on the land, is known as rent. Other terms employed include ground-rent or lease (12, p 2)(1, p 382).

The value of land, in so far as this concerns the fixing of the price of a product, should be related to its production ability and not its market value. In this case land should therefore be a price-determined factor and not a price-determining factor. (1, p 389) (10, p 539). In other words, the price of land should be determined by the price of the product and not vice versa, otherwise higher land prices will result in even higher product prices and in higher land prices again, until the situation is reached where, as at present, the production value and market value of land move even further away from one another and the difference remains. There is also the danger that no-one will be prepared to buy agricultural land with the aim of using it productively. Agricultural land will then only change ownership with a view to capital profit and agricultural production will merely be regarded as a method of increasing this profit. As a result less attention could be paid to the production of agricultural products, which could have a detrimental effect on the self-sufficiency of the country.

A widely held opinion is that the market value of land should be taken into account when fixing agricultural prices.

When Ricardo wrote his important work "Principles of Political Economy", there was a serious political dispute on land prices and wheat prices in England. The farming class strongly advocated the abolition of the protection of high prevailing wheat prices because, as they alleged, the high land prices made it essential for them to obtain a high price for their wheat. Ricardo penned a well-known statement in this respect, viz that the price of wheat is not high because land prices are high, but that land prices are high because of high wheat prices. The relation between the wheat prices and land prices was therefore the complete opposite of what had been generally believed and it was clear in any case that the price of land was eventually determined by the price of the final product, viz wheat, and that the "costs" of land did not determine the price of wheat. In this context the term "economic rent" is often used in the

English literature, because remuneration for a factor is determined only by its use and not by its cost. (1, pp 383-387) (10, p 538), (4, p 200).

Older text-books give an even more complicated representation based on Ricardo's explanation, viz that the price of wheat is equivalent to the production costs of wheat on marginal land, and that the difference between the price and the lower production costs on more fertile land indicates the rent value of the land. (1, p 390).

Rent as compensation for land is therefore a production cost item which provides for the remuneration of land as a production factor. Any other remuneration in the fixing of agricultural product prices is therefore not justified.

Attention has already been paid to a basis for determining an equitable rent, for example by studying the rent which the user of land (producer) is prepared to pay for it, i.e. according to its alternative earnings in proportion to the market value of land, which is more easily determined. (13, pp 389-397).

It goes without saying that this yield percentage will be lower than an interest-yield percentage on the production value, since the much higher market value is then applied.

This may be an easier and more realistic method of determining remuneration for land as a production factor.

6. MANAGEMENT

Farming management is generally regarded as - (14., pp 1 215-1 226)

- (a) identification of problems and opportunities;
- (b) gathering of knowledge regarding the problems or opportunities;
- (c) the evaluation of knowledge and forming of a decision;
- (d) action and implementation of a decision; and
- (e) the acceptance of responsibility for action.

In another view of the process of management - an opinion commonly accepted in industrial economics, four activities are distinguished, viz - (15, p 63)

- (a) planning;
- (b) organisation;
- (c) guidance;
- (d) control.

Although it is essential to find a reliable basis on which to remunerate management as a production factor in agriculture, it is probably one of the most difficult aspects on which to provide a satisfactory answer. To find an infallible norm which will

satisfy everyone is impossible. However, available literature indicates that one norm is to calculate management remuneration as a percentage of inputs. For example, management remuneration in the USA is taken in the case of crop farming as 10%, and in the case of dairy farming as 7½% of the total costs, including remuneration for interest on capital, but excluding remuneration for land. In Holland management remuneration is calculated as 10% of factor costs, i.e. 10% of labour costs, capital remuneration and land remuneration. (6).

Intensive research in this respect is essential and the Division of Agricultural Production Economics has already started such research.

It has also been recommended that, in the case of controlled agricultural products, management compensation to the farmer should be taken into account as a production cost item when prices are fixed and that the National Marketing Council should determine an average remuneration for this purpose. (3, p 13).

REFERENCES

1. SCHUMANN, G.C., FRANSEN, D.G. and DE KOCK, G. *Ekonomie - 'n Inleidende Studie*.
2. HATTINGH, H.S. *Kenners sê hul sê*. Landbouweekblad, 23 Oktober 1981.
3. HATTINGH, H.S. *Boerderybesigheidsbestuur: Enkele inleidende lesings* - Division of Agricultural Production Economics. 1971.
4. RITSON, C. *Agricultural economics: Principles and policy*. Student edition.
5. KILIAN, W. *Prysbeheer help inflasie aan*. Landbouweekblad, 18 April 1980.
6. HATTINGH, H.S. *Bedryfsomvang en -resultate: 'n Vergelykende studie*. Division of Agricultural Production Economics, 1980.
7. Working Committee regarding the *Economic Position of the Farmer and Agricultural Financing in General*, Final Report, Pretoria 1979.
8. FISKE, S. *Ploughing a furrow: Stable prices - the snags*. Farmer's Weekly, March 26, 1980.
9. HATTINGH, H.S. *Ekonomie se rol onderskat*. *Landbou-Burger*. Supplement to Die Burger, 2 October 1981.
10. SAMUELSON, P.A. *Economics*. Eighth edition, McGraw-Hill.
11. SCHOEMAN, H. *Winsbeginsel sal steeds bly geld*. Die Boer/The Farmer, September 1980.
12. HATTINGH, H.S. *Finansiële bestuur*. Department of Agriculture and Fisheries. Pamphlet No. 148.
13. NIEUWOUDT, W.L. *Value and rent of farm land*. The South African Journal of Economics, Vol. 48 No. 4, 1980.
14. JOHNSON, G.L. *Methodology for studying decision-making*. Journal of farm economics, Volume 39.
15. NEWMAN, W.H., LUMNER, C.E. and WARREN, E.K. *The process of management*, Prentice Hall, Engelwood Cliffs.