# PARTICULARITIES REGARDING THE CALCULATION AND PROFITABILITY ANALYSIS OF FARMS

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#### Abstract

In contrast to the industry, in the agricultural production process, specific factors intervene, which determine peculiarities in the use of labor, means of production and work items. The specific factors acting in the agricultural production process: land, plants, animals, soil and climate conditions, give special features regarding the development strategy, but also regarding the production processes with the two sides: technological and economical, causing certain features with effects on the methodology of economic analysis. These features of farm profitability analysis were briefly presented in this study.

Key words: capital, earth, farm, production, profitability, rent

#### INTRODUCTION

In contrast to the industry, in the agricultural production process, specific factors intervene, which determine peculiarities in the use of labor, means of production and work items.

Thus, through their own training, existence and development characteristics, the specific factors acting on the agricultural production process - land, plants, animals, soil and conditions development climate modernization of the travel offer represented by natural and anthropic resources [7] - give special features regarding the development strategy, but also regarding the production processes with the two sides: technological and economical, causing certain features with effects on the methodology of economic analysis. These features of farm profitability analysis will be presented in the following.

# MATERIALS AND METHODS

Earth – the basis of agricultural production has the character of a particular production factor which gives it an exceptional importance. Economic activity in agriculture is related directly and indirectly to earth, as the main means of production, with different production potential according to different areas, affecting yields per surface unit area,

nature and the level of allocation of production factors, products cost and implicitly farm profitability.

Compared to other means of production, land has a number of features that give it a specific role in agricultural production:

- It is a non-replaceable or hard replaceable production factor;
- It is limited as surface, but not limited as productive power, having the ability to increase its fertility through investments;
- It can not be copied and is irreplaceable for agriculture;
- As a means of production it can not be moved, which gives the agricultural process addiction to a certain space and a certain organizational structure of production;
- Rationally used, land does not wear out; it improves its productive power.

Earth can be used intensively or extensively, reservations for profitability growth regarding production volume depend in a decisive proportion of the intensive side with certain limits, required by the new concept of sustainable development.

In the profitability analysis it is also necessary to use the indicator "benefit at 100 ha", it constitutes the primary means of agricultural production.

Ground rent is the net income created in agriculture which pays the land factor.

Calculation of ground rent is needed to establish the amount of rent (cost land factor) for calculating the agriculture tax for policy and income support to farmers.

Interdependencies between price, cost, profit and rent are very close. Without the calculation of each economic category stated, one can not determine the levels of other.

Economic evaluation of the land included in the farm heritage is required in the calculation of depreciation and needs to be included in the cost, all of which influence the farm profitability (land price is directly proportional to the profit per hectare and inversely proportional to the interest rate). [5] For modern management, buying, renting, leasing or renting land are matters of economic analysis and must be assessed by production costs that they generate in long term.

Capital in agriculture has numerous features and peculiarities that must be taken into account in the profitability analysis, in taking and implementing decisions.

It is a well known fact that the economy can destroy its own systems of support by consuming the fix means of the natural capital. [1]

Fix capital (under its three forms: land, machinery and equipment, breeding and working animals) has a long life and is limited. It also has a heterogeneous character in space and by type of farm units.

Working capital is being used in a production cycle, can be assimilated with intermediate consumption (seeds, planting material, feed, fertilizers, chemicals, water and production animals). His characteristics are being approached differently by its component elements and the importance of increasing the speed rotation and the allocations necessary to obtain a unit of value added are being considered.

## RESULTS AND DISCUSSIONS

Production structure - material support of economic structure - is expressed by the proportion between production costs generated by combining and merging branches, particularly the proportion of fixed

and variable costs and their impact on revenue or farm profit.

The production structure can be:

- Extensive (characterized by the predominance of cereal crops in the cultivated land and production of goods and other crops which weakly exploit the land) which determines farms to increase their areas in order to achieve higher-income;
- Intensive (characterized by high share of livestock in total agricultural production or by a high share of intensive crops within vegetable production) in this case a higher income is being yielded by increasing allocations of variable factors per hectare and per animal.

The organization process of new production structures in our country is carried out uniformly in time and space, under forms and types of agricultural units: under branch or product, at organizational levels (exploitation, farm, sector), by phases of the technological process and area expertise.

Along with deepening the specialization the diversification of specialized units occurs, not only by branches or product but also flow technology phases.

The complex profile of an agricultural business (plant, zoo technical and industrial) also the organizational structure of these units (farms and sectors, departments etc.) is necessary to pursue the contribution of each branch of production and organizational links to forming the company's profitability.

Reserves for profitability growth on the total enterprise depend also on the rational profiling and specialization of the unit, especially the harmonious combination of crop production with animal one.

Structural interdependencies influenced by the random nature of agricultural production and the specific impact of used resources in the context of growing competition require a systemic approach to structural elements of the agricultural enterprise in order to identify optimal solutions operating within free market conditions.

The production system is original not only regional, but also in each farm due to the randomness of agricultural production, the need to maintain biological balance, diversity of natural and economic conditions. As a result, resource and agricultural products management takes features from other economic sectors and require case by case approach.

The choice of the production system is the basis of the production scheduling process in all its component phases.

Creating a favorable structure for production of goods on recipients, delivery periods and quality categories, also delivery to the state fund, on each hectare and per animal, a bigger quantity of production determines the increase of the average production prices, as a reserve of increase for the profitability of commodity products.

One of the main environmental problems of today's society is the continuously increasing production of organic wastes. In many countries, sustainable waste management have become major political priorities in order to reduce pollution and greenhouse gas emissions and to avoid, as much as possible, global climate changes. This problem becomes more and more present in our country too. [3]

Farm work plays an important role in agricultural production; it is the determining factor for valuing land capital and operating capital.

The economic importance of living labor stems from the fact that it has a high percentage in the farm production costs (up to 25% depending on the species, culture, growing system) [6], raising social aspects especially in family households, where it represents a fix unpaid expense.

Correlative forms of involvement of earnings and monthly cost with other synthetic indicators, production and gross value added in agriculture are essential, as it is the main element conditioning the very quality of life. The monthly cost of labor influences in direct, both total production as well as gross added value in agriculture. [2]

Agricultural work has technical, economic and social characteristics variable according to its complexity and intensity, as follows:

- It varies in time due to weather conditions and biological factors, which generates a series of consequences for the employability of the workforce and schedule of agricultural work especially in the vegetable sector;

- Working conditions in agriculture are difficult; wages can not express enough the efforts of farmers;
- Because human behavior can not be included in strictly logical and rational schemes, quality and structure of the human factor prevails on its quantity.

Long production cycles (the duration of the production processes is ten times higher than in other branches), the influence of natural conditions, use seasonality of natural and human resources, due to the mismatch between labor time and production time require tracking dynamic profitability.

In stock finished products at the end of the year with destination to be delivered and included in total income, affect total return (determine an increase of the benefit from total activity).

Profitability can be known only after the final production cycle, after completing the calculation.

## **CONCLUSIONS**

In agricultural units primary and secondary processes occur with major implications in the management and organization of agricultural unit. Here, technological processes are intertwined with biological ones; they even overlap [6] which give a fundamental feature, which must be taken into account in economic and financial decisions and in the fiscal policy adopted. Thus, taking action with living organisms that multiply, develop and produce in time after biological transformations, the costs incurred will be recovered much later, together capitalization and trading. [4]

Also be taken into account are the risk and uncertainty factors that manifest in agriculture, both natural ones - droughts, floods, frost, diseases, pests, as well as the predictable ones - soil, relief, climate, resulting in considerable action on the production obtained, which is variable according to the nature of the production.

An important percentage in agriculture and in the expenditures amount have transport and

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surveillance activities, due both to the long distances, as well as the repetition need of some on the same surface.

Production technologies ensure under given circumstances, obtaining high crop yields with minimal costs. The new technologies must ensure obtaining of unpolluted, high quality, cheap and large amounts products.

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