

EFFICIENCY OF CAPITAL INVESTMENTS IN ECOLOGICAL AGRICULTURAL PRODUCTION AND POSSIBLE SOURCES OF FINANCING

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Abstract

The capital investments have always directed towards the areas of activity where the capital increase has proven to be most efficient. From this point of view, the perception of various investors is many times very different. Thus, in today's world, which faces many problems, mainly economic ones, there is the possibility to use capital properly, by making some investments whose purpose is to obtain ecological products, the mankind is interested in today, more than ever.

In order to achieve this goal have to be used some technical but also some economical methods that are referred above. This paper wants to emphasize the particularities and efficiency of such investments in ecological agricultural production, concurrently with emphasizing the importance that the ecological products have for mankind, mainly in the actual stage, when very many of the agricultural products we consume are counterfeits, with unwanted implications on people's health and on their hope of life. This paper also presents briefly some possible financing sources of the mentioned investments, which an investor in this domain might take into account.

Key words: ecological agricultural product, certification, bonds, equity capital

Introduction

The economic crisis that has struck almost all the countries of the world is raising big problems which must be solved and find solutions to be compatible to

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the actual stage the world is crossing. Obviously, the economic crisis manifests at many levels, such as economic, political and social levels. In this context, it needs to be mentioned the fact that a domain that has been seriously affected by this crisis is the one of investments, both on the national and on the international plan.

It might be said that we are facing a recession period, which manifests in several plans, as we have mentioned before, the investment sector being seriously affected. Obviously, in front of such a situation, countries will react, but will try to find the best solutions to overpass such a state of things, as has always happened in history.

Any investor, owner of a certain capital, will search those areas of economic activity which might lead to profit. But there is a problem, the one of taking risks. In other words, an investor, today more than ever, will have to weigh very well the advantages and disadvantages of a possible capital placement and will have to know the risks this decision will bear.

Regarding the first aspect discussed, the one related to advantages and disadvantages of a capital placement, the investor must have minimum knowledge of evaluation of efficiency of the respective capital investment, based on some methodologies of evaluation, however, the evaluation of risk of the respective investment is a much delicate problem. That is why, today, more than ever, when the economic crisis is at its peak, an investment must be thoroughly analyzed in its early stage, before making the respective decision, and the advantages and disadvantages must be carefully weighed, next to the risks associated to the respective investment.

All these problems mentioned above, in the context of a capital investment in a productive corporal asset must start from the demand of the market for the respective product or, more exactly said, if that product sells or not after the investment is made. Though, in present, most of economic sectors which are hit by the crisis are not interesting for the investors, there is a domain where an investment made may prove to be efficient, to the expectations of the respective investor. This domain for the future capital investments, where the risks of the respective placement are minimum, is the domain of the ecological agricultural products.

Why Investments in Ecological Agricultural Products?

To speak of investments and their efficiency in the domain of ecological agricultural products means to speak of the interests of the two participants at this process. On one side, there are the interests of the investor, who, as owner of capital, is interested in the capital to turn into profit, more efficiently, or to lead to a

higher rate of gain. On the other side, we must take into account the population, which, in the end, will dimension the demand for the future ecological products which will be born after the investment made.

The moment has come to become aware of the negative effects caused by an irrational alimentation, based on a series of products which have in their composition improper raw materials, as mentioned above. In other words, there is more and more interest in buying natural, ecological agricultural products, which would have good effects on our health. On this plan, in order to obtain such ecological products and to find them in our shops, certain measures should be taken, such as:

1. to change radically the technologies used, both for vegetal production and for the animal one, in order to obtain natural, ecological agricultural products;
2. to identify the most convenient financing sources, possibly to obtain, in order to achieve such investments able to respond to the desiderate mentioned under point 1).

Though only two plans have been mentioned, these are not the only ones. Synthetically formulated, these two plans, if achieved, open the road towards obtaining a natural, ecological agricultural production.

For the first plan mentioned above, we consider that one of the basic factors that must be taken into account in the future is the intensification of the activity of research in the agricultural domain, which should lead to new technologies of obtaining ecological agricultural products. The reminded measures also must be taken very soon, as much as the soil must be cleaned, purified from a series of chemicals used for so many years; and this cannot be done instantaneously, but in a certain period of time, sometimes in years.

Obtaining agricultural products in ecological regime requires other higher production costs, but there must also be taken into account the fact that, once obtained, these products will be sold at higher prices, which – how interesting – the population will want to accept and pay, because of the superior quality of these products. A higher price must also be seen in another aspect, from the position of the investor, as sole manufacturer. Otherwise said, a higher price means, among the others, a higher profit for the manufacturer, which can be found in the price.

Starting from the idea that profit is one of the mobilizing factors or even the most mobilizing factor in making some investments, we may affirm, without the fear of being wrong, that the investments in obtaining ecological products, mainly in the actual stage, are efficient capital placements, on long term having a huge rate of gain. In order to emphasize the continuously increasing preoccupations in

achieving efficient investments in this domain, I would like to discuss an example, even from Romania, which is significant and which I have also discussed about in other similar papers. In the eastern side of the country, there is a locality called ZEBIL.

About 4 years ago, a farmer from this area, started practicing ecological agriculture. He started growing tomatoes, cucumbers, peppers and onions using ecological technologies. After 3 years of severe monitoring, the 240 ha of the farmer from ZEBIL were certified ecologically. In this moment, I consider it is useful to stop for a while on the economic consequences coming from this certification. Certainly, the economic consequences are numerous and very various, but, from among them, we shall try to extract a very direct and important consequence.

Subsequent to the ecological certification mentioned above, the respective agricultural products could be exported at a double price than the price that would have been obtained if sold on the internal market. It is obvious that, without putting the ecological labels on those products, which had as starting point the ecological certification specified before, this would have not been possible.

It is obvious that obtaining a double price when exporting these products, in comparison to their sale on the internal market, in the conditions of certain production costs, means also a bigger profit, which, at its turn, attracts a series of other favorable economic consequences on various levels, inclusively on the plan of making some investments for the development of activities in this ecological regime.

Subsequent to this experiment, we must mention that in present, the experience mentioned above has been taken over by other farmers, so that, today, the whole land from the ZEBIL area has been certified and registered for ecological cultures; various landlords have associated to practice ecological agriculture, so that, soon, other farmers will receive the ecological certification from the Romanian agricultural authorities. It is interesting to observe one other fact: in present, about 85% from the agriculture of the county of TULCEA (a very nice and fertile area from the eastern side of the country) has been included in the European network of ecological sites NATURE 2000.

Therefore, one of the urgent measures that should be taken not only in Romania, but also in all the countries of the world, refers to adopting a package of very severe laws, which should aim at the protection of bio-diversity. More than that, complying with these laws could be accompanied by the State granting some facilities in form of incentives. There is a greater and greater interest in consuming products that would make us come closer to their natural taste, which would have a major impact on our health. We want to eat fresh vegetables and fruits and also tin

cans prepared ecologically. It is important to keep in mind, from those presented above, that there are two basic aspects, as follows:

- the investments in ecological agricultural production are efficient for the owner of the capital, who makes such capital placement;
- the investments in ecological agricultural production are also efficient for the population, for the consumers, eager, as mentioned before, to pay a higher price, which is very well justified by the superior quality of the respective products;

According to some calculations, the period for recovering the capital invested by such an investor is of about 2-3 years, period calculated with the formula:

$$T = \frac{KI}{PRn}$$

Where:

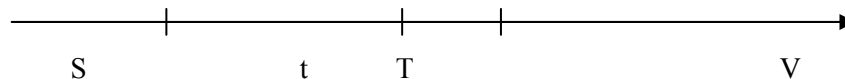
T = payback period of the invested capital

KI = volume of the invested capital

PRn = yearly profit

The relation defined above, though easily to calculate, is not relevant enough to specify the period of time when the invested capital may be paid back. The limited degree of relevance comes from the fact that this formula approaches statically the calculation of the payback period, or, otherwise said, this relation does not take into account the influence of the time factor. In this regard, in order for the reminded indicator to reflect the reality best, it is necessary for this calculation of the payback period to be made in other form, using a dynamic calculation, which should take into consideration, beside the efforts and investment effects, the influence of time value of money..

The dynamic calculation of the payback period of the invested capital is based on the fact that in T moment \rightarrow the respective payback time, the cumulated profits obtained are equal to the efforts of capital invested; the only problem that must be understood in this context is that the respective values appear discounted, meaning corrected, with the influence of the time factor. Thus, we put it on an axis:



Where:

s = moment of beginning the investment

t = moment of putting the investment into function

T = payback period of the investment

V = moment of ending the investment

Putting the sign of equality between the invested capitals and the profits earned until the respective moment, the values calculated in their updated form, we shall obtain:

$$\sum_{h=1}^d Ih(1+a)^h = PRn \frac{(1+a)^{T'} - 1}{a(1+a)^{T'}}$$

Where:

d = period of making the investment

Ih = investment from the “h” year of the achievement period

PRn = yearly profit (constantly estimated)

T' = discounted payback period

a = updating coefficient

In the above relation, all the elements are known, except for T' , meaning the dynamic period or discounted payback period. Otherwise said, solving this exponential equation, by using logarithms in the end, we shall obtain the discounted period term. It is obviously very important, at the end of the calculations, to compare the static payback period of the invested capital to the dynamic one, the difference between them representing in fact the influence of the time factor.

Possible financing sources of the investments in the ecological agricultural production

Certainly, one of the most delicate problems, mainly in the actual stage the mankind is crossing, the one related to an economical crisis, which seems to last longer, is related to money, to the existence of a volume of capital, able to move the economic processes in the direction specified above.

In other words, to pass to an ecological agriculture is a problem that cannot be solved without money. That is why I shall try below to present a few possible financing sources, which, in my opinion, should be taken into consideration.

Certainly, a first financing source would be the equity capital, which would solve the problem without other interventions; but, if this source does not exist, or it exists, but it is not enough, the problem will not be solved. In such a context, it is necessary to call for other possible financing variants which I shall try to present below.

The capital market offers a few possibilities of attracting some available capitals, based on which the proposed purpose may be reached. The share issue is also a concrete and possible opportunity of attracting some capitals, and, if the respective issue is successful and the shares are sold, the respective capitals attracted in this way will be later on found in the company's equity capital or in the issuing company's capital.

In another context, if the company considers such a way of attracting capitals as not being successful, it may change its direction, to bond issue. The difference between attracting capitals from share issue and bond issue consists in the fact that, whereas, in the former variant, the capital attracted can be found in the own capital, in the latter variant, the capital attracted can be found in the loan capital.

It is very clear the fact that these two variants of attracting capital have different costs, reason for which the issuing company shall consider very carefully the decision to be made in this regard. There also must be taken into account the variant of attracting capitals based on some bank credits, variant which should be taken into account by the respective company only as a last call; the costs of attracting capital in this situation are the highest, in comparison to other possible variants presented above.

Beside all these presented before, I should also mention a series of structural funds granted by the European Community for this destination, such as SAPARD funds.

Some Economic Considerations and Conclusions Regarding the Increase of the Efficiency of Capital Investments in Ecological Agricultural Production

Passing from a classic agriculture to an ecological one is not a very simple problem, but, we may say, it can be solved. There are difficulties in present and there will appear also other difficulties in the future, the basic problem being the one of finding the ways and means to overcome them. At the same time, time factor must also be taken into account, which is very present in this system.

For example, only the period of soil conversion to an ecological agriculture is of minimum 2-3 years, period in which the soil must be cleaned from all the chemical substances used for treating the soil until that moment. Despite all these, I

declare myself as being the adept of a decision to invest in this domain of activity, considering that this investment will be efficient. Among the basic arguments of such an adventure, there are also a few basic ones, as follows:

- once started and put into function, such an investment will have sales, mankind being more and more interested in consuming natural products;
- without such an investment, thoroughly thought, the road towards the “certification of products” obtained ecologically is blocked; in other words, the price of these products will depend on their quality; however, the quality must be real, certified by competent bodies. Therefore, the whole road to this certification cannot be possible without making some capital investments.
- a legislative framework is necessary, containing the conditions that must be accomplished by those who will choose such an activity;
- the minimum necessary conditions for applying the ecological labels on the agricultural products must be clearly agreed and communicated;

There also must be taken into account the collateral effects such an investment will have. For example, some economic effects of the respective investments will be felt in tourism; very many tourists, mainly foreigners, may be attracted in the country, by presenting them the possibility to consume, during their stay, only agricultural products obtained in ecological regime.

Such an investment in ecological products may have a special efficiency, by prospecting external market by certain agricultural companies, which are monitored in order to be granted the ecological certificate. By prospecting the market, the companies will also take into account the conclusion of export agreements for the future agricultural products which will be obtained ecologically.

Another way of increasing the efficiency of investments is to find solutions for changing some technologies of maintaining crops and of fighting against pests, by using substances and materials which should respond to the ecological requirements of obtaining ecological products. As mentioned in a different context, despite the higher prices of such products, they are still sold, thus leading to obtaining profit; this aspect, together with the element of volume of sale of these products, leads to economic efficiency; therefore, this investment may be paid back in 2-3 years and, later on, the final profit is obtained, which means that final profit is obtained after the period of investment recovery.

These are only a few ideas pleading about the decision to make some capital investments in this domain of maximum importance both for present and for the future, the domain of ecological agricultural products. For such an investor, the

financial effort made will be fully justified in the efficiency of the investment made, as shown above.

I do not claim that I have exhausted the whole topic of efficiency of investments in this domain, still, through this paper, I have wanted to draw attention of some directions where investments may go, so that the respective results, the efficiency of capital attracted, to meet the expectations. I also want to emphasize the fact that these investments may be efficient, even in this period of crisis, when very many investors become skeptical.

As a conclusion, such investments will be efficient in obtaining ecological products, not only now, but also in the future, therefore, any investor should analyze such an opportunity of investments, starting from the particularities and specificity of such kind of investments.

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