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# EL MÈTODE DEL VALOR AFEGIT PER A L'AVALUACIÓ DE PROJECTES D'INVERSIÓ

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# The investor's behavior: uncertainty and risk<sup>1</sup>

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## Introduction

Any person more or less familiar with the world of business will have heard many times the expression 'to win you need to take the risk', or 'the profit is the compensation for the risk taken', an idea on the basis of which economists like F. Knight, F. Modigliani or W. Sharpe developed the part of the Economic Theory dedicated to the capital markets, tackling with this initial hypothesis the very difficult problem of how to face the future and the uncertainty in economy.

Under the hypothesis of the business profit as a compensation for the risk, the investor acts rationally as a player who maximizes the expected profit according to the associated risk. The investor's behavior described above, being efficient behavior, results in the distribution of the investment in a portfolio of shares composed of the same proportion than that of the market itself.

This strategy, that can be also advisable for any player in any game of chance, is supposedly compatible with business investment, considering that the prices of shares summarize appropriately the information related to the company, to the market, to other markets, to the technology, etc., so that the investor cannot at one point foresee the price change or rate of the following moment. This is known as Hypothesis of the Efficient Market.

But managers themselves are the ones who mostly dislike this theory, in spite of being greatly developed, partly because they do not see themselves included, since they do not act as players, and partly because this theory is not useful to them, since it is not applicable to their daily decisions.

An alternative position which would be more in line with the investor's behavior should take as a starting point the fact that the problem tackled by an investor entails knowing, when faced with a business opportunity, how many resources are needed and how much it is expected to yield in the future.

Consequently, in spite of the atmosphere of uncertainty in which economic decisions should be taken, based on this alternative hypothesis, the investor decides according to the knowledge of their investment project, in such a way that the business profit is not a compensation for the risk characteristic of a game, as is considered by the traditional orthodoxy, but it is a 'prize for the success', as a consequence of their knowledge of the business.

The hypothesis of the business profit as a prize for success and knowledge, besides being more realistic with the investor's/manager's behavior, is also more appropriate to consider the type of uncertainty characteristic of the business and economic environment that is not at all one that can be described by means of probabilities.

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Based on this hypothesis related to the investor's behavior you can also develop an alternative theoretical framework that corresponds better to the business behavior; that it is coherent with works of theorists and managers such as B. Graham, J.M. Keynes, W. Buffet, etc.; that it is based on the manager's knowledge (Know How); that it is complete as a theoretical conception; and, also, it allows to reinterpret the concepts and hypotheses of other models tackling how to face the future and the uncertainty.

### **The investor's behavior**

The investment is the acquisition with one's own savings or other people's savings by someone who shares or holds the global ownership entirely, of capital goods allocated to obtaining a predictable positive net yield in accordance with a business plan.

A business plan is a theory of the project in the sense that it includes elements such as the capacity of the agents, the history, the business opportunities and the strategy, from which we can make good conjectures.

Consequently, the investor's behavior is based on intelligence and knowledge.

The suitable foundations of a business plan can be hardly determined, and the quantification of the resources to be invested and the yields to be obtained should be interpreted as objectives to be reached for the business management.

The inputs and outputs of the business plan refer to different moments in time, and this is why their evaluation should solve this problem.

The value of the business will be based on its capacity to generate wealth, which in turn depends on an effective and honest administration and the existence of business opportunities that are discovered the same as any process of acquisition of practical knowledge.

Therefore, for an investor as the one described, as long as their company generates wealth, it should not be so important if the price or rate of their shares in the market increases or decreases, because if they do not need to sell in the short term, this does not affect them at all.

Undoubtedly the investment based on the generation of wealth is always medium or long term, while the investment in the share market or the stock market is usually short term, specially if it is speculative.

The fact that it is not so important for a manager what the stock market indicates as long as the company is making money reflects that a dissociation can occur between value as a function of the capacity to generate wealth (knowledge) and the price estimated by the market based on the interaction between the offer and the demand for those shares.

In other words: it is a situation similar to that of a horse race, where bets are made, but these bets do not have any influence on the horse. On the contrary, the result will have an influence on the future bets, since they will correct the information available on which were the fastest horses.

It may happen – as is also the case with investments- that somebody considers that to bet you do not need to know anything about horses but you just need to assume that the bets already contain implicitly any information and it is enough with having some knowledge of the theory of probabilities.

At this stage, the main difference stated at the beginning between considering the profit as a compensation for the risk or as a prize for success, seems to be even more clear, differentiating the bet based on the analysis probabilities of the market data or the bet based on the knowledge of the project.

With the analysis of probabilities or of the market, first of all one should consider the risk and then determine which is the yield that compensates for this risk, while business investment is based on gaining the profit thanks to the knowledge, which later on is not without risk.

### **Uncertainty**

Also from a point of view of the analysis of the uncertainty, the concepts of market analysis and analysis of business projects are different.

The value depends on the future profit and consequently the price is an estimate of this value made by the market, in a similar way to what occurred in the bets at the horse races.

When determining the price or rate of shares, the market takes into account all the available public information, which can be verified because it is not possible, from a rate in a given moment, to predict the rate of the following moment in a more efficient way than tossing a coin, so that the investor/player of the stock market should follow a strategy consisting of diversifying the portfolio, and if they do that in the same proportion of shares as those that there are on the market, the same average yield of the market will be guaranteed.

This statement seems to conflict with the fact that there are funds that yield much higher profits than those of the market. How is this possible? The answer is very simple - one hypothesis corresponds to the investor/player of the stock market, and the other one to the investor in business projects.

The investor/player cannot get more efficiency than the one that corresponds to the described strategy.

The investor in business projects, on the other hand, follows the strategy of investing in few well-known projects and in those for which they trust the management. They do not invest on the basis of the thorough knowledge of the market, the company, the technology, the management, the business strategy, the economic objectives, etc., but of the greater knowledge of the competition, which leads to higher yield.

From the point of view of the uncertainty, the situation is very peculiar because, while the market price is an estimate of the value, the price is determined, while the value is not.

On top of this, because we have not introduced to “upper-smarts” yet: within the market there are some people called speculators, who are dedicated to predict the psychology or the phobias of the market, if it is not them who create these phobias. Consequently, regardless of whether companies are going well or not, the short-term market has highs or lows; and from the point of view of uncertainty, the prices are still being determined and the values are not.

The approach towards the uncertainty of the market prices is made on the basis of the calculation of probabilities, while the approach towards the uncertainty in the analysis of projects is made by means of a “theory of the project” or business plan.

We say that a company plan is a theory of the project for several reasons: in the first place because of the result, since a good company plan is the one that allows intelligent conjectures to be made to the agents, i.e., that helps to think, to understand and to act.

Secondly, the methodology to make a business plan also has a scientific nature, because we make uncertain hypotheses based on uncertain evidence, i.e., we work with indications that are partly true and, at the same time, partly false (in fact they are uncertain because they are true and false at the same time, although in a different degree) and we approach the truth by means of the distortion of these hypotheses.

While the process of analysis of the market price and the decision of the investor/player can be scheduled using a computer, so far the analysis of the project, i.e., the attainment of a theory of the company, cannot be obtained with a computer because for this we would need a computer that thinks (a Turing's machine).

Such a machine requires the combination of signs in a positive sense and simultaneously in a negative sense on the same hypotheses. Maybe we are closer to attaining this, but it needs to be noted that this method can make theoretical knowledge more accessible and, at the same time, the paranoia and the “scientifically well-built” error, although the reality is known through the test of survival.

## **Conclusion**

We have seen that with something seemingly as simple as distinguishing between profit as a prize to knowledge and not as a compensation for the risk, we establish a coherent conceptual basis with the investor's behavior from which we can build an alternative theoretical framework, within which appear contributions of great theorists such as J.M. Keynes, important investors such as Warren Buffet.

This theoretical framework that is based on the generation of wealth or of added value - concepts with a dynamic nature- solves better the connection between present and future in economy than the Theory based on the approach done by the market of the future value through the price or rate.

	<b>MARKET ANALYSIS</b>	<b>PROJECT ANALYSIS</b>
<b>SETTING</b>	Stock Exchange	Companies (there is not exactly a market)
<b>LEGAL FORM</b>	Acquisition of listed shares	Acquisition of shares
<b>DETAIL</b>	Standardized	Case by case
<b>PROJECT VALUE</b>	Value determined by the market (offer/demand)	Value depending on an investing decision and economic management (intrinsic value)
<b>BASIS OF THE INVESTOR'S DECISION</b>	Quotation of companies (probability analysis) or prediction of the psychology (speculation)	Confidence in agents and business opportunities represented in a Business Plan
<b>THEORETICAL MODELS</b>	Pricing models (CAPM, APT,...) and technical analysis (historical series and quotations)	Fundamental analysis, security analysis, added value method
<b>SUPPLEMENTARY HYPOTHESES OF THE MODELS</b>	Hypothesis of the efficient market (implicit information)	Hypothesis of the efficient investor (explicit information)
<b>INVESTMENT HORIZON</b>	No horizon or short-term	Long-term
<b>OBJECTIVES</b>	Maximize mathematic hope of profit minimizing risk	Obtaining revenues by creating added value
<b>RESULTING STRATEGY</b>	Diversifying portfolios in accordance with the same distribution as the market	Investing in a few well-known companies, where there is confidence in the agent