

## UPDATING UNDER RISK CONDITION

VĂDUVA CECILIA ELENA

ASSOC. PROF. PHD., “CONSTANTIN BRÂNCUȘI” UNIVERSITY OF TG-JIU,  
FACULTY OF ECONOMIC SCIENCE  
e-mail: vaduvamaria09@yahoo.com

VĂDUVA MARIA

ASSOC. PROF. PHD., “CONSTANTIN BRÂNCUȘI” UNIVERSITY OF TG-JIU,  
FACULTY OF ECONOMIC SCIENCE  
e-mail: vaduvamaria09@yahoo.com

### **Abstract:**

*The foundation for future firm development is investment. Agents have a risk aversion requiring higher returns as the risks associated with the project will be greater.*

*The investment decision determines the market firm's affirmation, increasing the market share, dominating the market. Making an investment at a certain point will determine certain cash flows throughout the life of the project, and a residual value can be obtained when it is taken out of service.*

*The flows and payments for the investment project can be more easily tracked if we are proposing a constant update rate.*

*We will be able to analyze, based on various factors, three techniques for determining the discount rate for investment projects: the opportunity cost, the risk-free rate, and a series of risk premiums, the weighted average cost of capital.*

*People without financial training make value judgments for investment projects based on other market opportunities, comparing the returns that any investment offers to other pay options. An investor has a sum of money he wants to make - if he does not invest in a project, he will invest in another, that will bring him a certain amount of money, choosing the most advantageous project by comparison.*

*All projects are characterized by identical risks, and the agents are considered indifferent to the risks.*

*The answer given by financial theory and practice to the disadvantage of rates in the opportunity cost category is the discount rate calculated as a sum of the risk-free rate and a risk premium, defining the risk as a factor whose action may cause a possible decrease in cash of the available flows.*

*Higher objectivity is presented by the opportunity cost update rates of update because it refers to known variables but cannot be perfectly matched to the performance of the investment process.*

**Keywords:** risk, discount rate, weighted average cost of capital, investments, profitability, market, opportunity cost.

### **1.Introduction**

The investor wants to achieve a nominal return higher than the inflation rate that is a nominal benchmark.

The risk-free rate of return is another benchmark - an investment project that, if it does not determine the risk-free rate of return, a minimum return, then it must be rejected. The risk-free rates in Romania are: treasury bills payout rate, an average interest rate on deposits within the guaranteed limit in case of failure to pay the bank.

Due to complex and dynamic competitive environment, companies face a number of difficulties and uncertainties related to a multitude of issues such as: investments, funding, interest rates, obtained loans etc. Thus, any company must pay special attention to all these items because they all converge towards materialization in a higher or lower grade of the financial risk, which can cause restriction or suspension of access to bank credit and funding on the capital markets. [3]

The overall profitability of the market has a large impact on the rate of return required by investors. In order to calculate a discount rate adapted to a turbulent environment such as in Romania, we can consider a risk rating system by calculating a risk factor as a factor for multiplying an amount, which can be considered the GDP growth rate for which there are predictions made by the government.

Common risk factors are the variables that influence the profitability of the securities in the portfolio of securities under consideration.

## 2. Increasing economic efficiency and main participants

The operation by which an expense or income per year of action is recalculated in monetary units in a reference year that constitutes the update, which is a way of reasoning, a calculation method which makes it easier to estimate the measure in which the fraction of social work invested in a particular action will keep pace or outweigh the overall economic growth rate.

The interest rate is a donation of the financial market reflecting a preference over time and expressing an inverse attitude to risk, which is the basis for the practice of updating. Financial calculations are a must in the long-term financial decision.

The updated value by composing a suite of activities is equal to the sum of compound values for each unit.

Determining the present value of a payable or receivable amount at a certain time shall take into account the amount, the number of years between the reference moment and the current one and the compound interest rate that reflects the potential or actual degree of capitalization of the capital.[4]

In practice, revenue, costs, loans, etc. are reported at different times of the year, per quarter, per semester, requiring methodological adaptation in using the interest rate mechanism in the update calculations.

Applying the update technique involves three elements: the value string, the update rate, the reference times.

The string of values may have varied content, meanings, and determinations. Estimation takes place at certain parameters, hypothetical assessments for a prospective horizon generate comparative analysis versions.

The discount rate is the numerical expression in which the update calculations reflect the degree of fructification of one unit or one hundred units of money over a period of time, usually one year.

The reference times in the update are numerous on the time axis, but mostly on the life of the project.

The cost-price relationship in the market economy reveals its dominant indirect link characteristic because the cost indirectly influences the price formed on the market by means of the cost of the offer in the price that is substantiated and proposed by the producer for his negotiation with the buyers. Depending on the demand-offer ratio, whose social dimensions are recognized by the market mechanism (where you can actually know which is the offer and what is the demand), the cost of each producer may be less than or equal to the price, so:

$c < p$ , when the price fully covers the cost and ensures profit;

$c = p$ , when the price is equal to the cost, so it covers the expenses and generates the losses.

So, being a result of balancing the demand with the market offer, the price is not cost-based, but depending on the possibility of balancing at a certain level of the two components of the market, the cost does not always integrate globally in the production costs. Such an aspect is undesirable by the manufacturers. But his reality is aware of them to look for technical and economic solutions that can reduce individual unit costs. The free play of the market brings the

economic agents to progress. The level of the production cost is exclusively the problem of the manufacturer. Knowing the characteristics of the indirect link between the cost and the price determines constant concerns of manufacturers to optimize their cost, acting on their reduction, in order to ensure the highest profit. Direct competition through price leads indirectly to a competition through cost. At the same price level, those producers whose cost is lower are better.

Wrong treatment of price priority over price in the case of planned price setting has led to unnecessary, rigid, administrative price fundamentals that has removed them from their real base, generating value and material disproportions in the economy. The absolutisation of the direct relationship between cost and price, based on planning, meant price setting by administrative methods and difficult to adapt to the changes in the real size of the exchange value of products and services, creating price anomalies, maintained for long periods of time. This phenomenon was more anachronistic, as the prices for most products were unique to the economy.

As has been shown in the previous chapters, any producer must undertake a cost and profit margin justification in order to be able to appreciate before the market laws act on the price level, whether or not to choose for the manufacture of the product. Moreover, the elaboration of the predictive cost and cost calculations is required in several variants, in order to choose the best option. This means that although the fundamental link between cost and price is that indirect link, it must include all manufacturers using the prospective cost function in decision-making on production and sales.

Although since the 1990s the market data has become more and more imperative in the field of price formation, the cost is still another area on which the price fixing is based. Defining the cost implies, first, defining its finality and its objective, since all the costing processes derive from these two fundamental vectors. [1]

The cost goal can be determined by: accounting, by summing the expenses incurred with the help of analytical accounting, knowing the level of the actual cost of a particular product; economic, when the enterprise wants to go further with its investigations. She wants, with the help of the predictive cost calculations, to take the price decisions. In this case, the accounting framework is too narrow. Action must be taken on future expenses. It is necessary to practice the timely and decisive calculations, to recalculate and adapt the calculated accounting cost.

Object or object vector (objective costs). The cost objective is nothing more than a tax cut, in order to use a tax term, that is to say the whole of the elements in terms of cost; these elements can be products, investigations, functions, etc. Costs are scheduled and even scheduled, as in the case of making new products, for which the consumption of materials or workmanship differs from the existing ones.

In monetary terms, the cost expresses (measures) the sum of the sources used for its object.

In terms of time, costs are set for short or long periods.

The market economy is based on the principles of the free market where the offer and demand are not regulated by the state. Based on this thesis, the market economy is an economic system in which the allocation of resources is exclusively determined by the supply and demand of the free market. The practice shows us how credible and how improbable is in this thesis, which demonstrates that in reality there can be no economy based solely on the market freedoms. [5]

Market economy requires a system of economic organization based on private ownership, free initiative and subordination of profit-making activity and the development of entrepreneurship as value on the market. On a global level, to date, this type of economy has demonstrated that it can ensure the overall economic progress and optimal allocation of the resources.

The main features of the market economy:

- ✓ competitive character, based on competition and circulation of information;
- ✓ profitability, both as a condition of immediate effectiveness or survival, and as a condition of long-term efficiency and development through progress;

- ✓ open character of free inputs and outputs on the market of the production factors of goods and services.

In the economic theories of the free market, it is insisted on the arguments that explain the formation of belief at the level of the members of society regarding: a) free markets ensure the most efficient and optimal allocation of resources from a social point of view; b) the government is responsible for enforcing the law in respect of property rights and contracts; c) the economic globalization, ensured by the disappearance of barriers to free circulation of products and capital, is a factor for strengthening competition, increase of economic efficiency, reduction of consumption prices and diversification of their options.

The functionality of the market economy is ensured by the efficient setting of prices in the public interest. This implies: the absence of monopoly; the existence of real competition; full recovery of production costs by producers based on the sales prices; the origin of the capital, in its main part, either local or national; owners' involvement in business management. All these conditions are also premises for general efficiency, which in fact implies an optimal allocation of the resources of society, which, in other terms, means social welfare.

In spite of the multiple considerations underlying the reasons issued against the role of the variable factor price with influence on the economic operators' behavior, the price has always remained a constant concern both in theory and in practice.

The increase in the interest for the study of the prices and grating it a central place in the microeconomic specialty works (including their macroeconomic interferences) is due to several factors.

First of all, the economic operators are interested in the evolution of prices, as a measure of inflation, by the price index, as an essential indicator of the economic conjuncture that underlies many economic decisions.

Second, for knowing the environment and enterprise responses, the price is taken as a signal issued when changing the behavior of sellers and consumers, in confirming or not confirming its level, whose influences propagate on the market equilibrium. For the consumer, the price is the synthetic information of a good defined by the technical performance, by its quality.

Third, the price is approached in its two facets: commercial and financial.

As a sales argument, the price is the center of the financial flows of the economic agents: the price of a good is always a cost for another good. Sales revenue is the key element of the enterprise's profit, on which depends the development, or sometimes its survival on the market.

The price is treated as a nodal point in the study of profitability and the establishment of a marketing plan. With the help of the price, commercial options can be quantified, using rigorous and accurate marketing.

It is understood that enterprises show a permanent reflection on their prices, identified over time in the following circumstances:

- Launching a new product, whose success depends, to a good extent or even exclusively, on the asking price. The price gives the first image of the product.
- The moments of inevitable price change (update) due to the change of the competitive manifestations on the market or as a result of the generalized increase of the costs under the influence of the prices.
- Matching the price range.

The entities that have price manifestations are: the consumer, the enterprise as seller, the partners of the enterprise, the state.

Consumers are manifested in two hypotheses: through constant interest in prices and limited capability.

The reasons for which consumers are directly and constantly interested in prices are:

- the price influences the purchasing power expressed in real terms;

- the price is the importance of the financial sacrifice that he must consent to for the purchase of a good;

- the price is used in the choice he/ she wants to make between several products; the price represents the value related to the expected need or performance of the product, the degree of interest for the product.

In essence, the price characterizes the product and, by this, it influences the buyer's option on the cost of his/ her purchase.

The consumer's limited ability to act is explained by the following elements of judgment: uncle goods of strict necessity must be absolutely satisfied; businesses perceive consumers through the vital need for goods; the information is incomplete and difficult, which makes consumers' choices to be based on apparent present criteria positively presented by sellers.

The enterprise, as a seller, is at the origin of price decision. That is why its position among the entities operating with the price is the most important. The price decision is the result of the action in several functional compartments within an enterprise: sales manager, advertising manager, production manager, economic manager, responsible for the management control, financial manager, general manager. Each of these responsibilities is concerned with: the level of market price to increase sales, the influence of sales rhythm on the rhythm of production, the confirmation of the prices based on unitary production costs, the use of most cost-effective pricing methods, the maximization of the total profit of the enterprise.

The partners of the enterprise include all direct participants in the exchange operations. These are manifested in the following hypostases: as supplier; current competitors; intermediate consumers or distributors within the specific circuit.

The state intervenes in different ways in determining prices: the general regulation of prices and commercial practices; the action on the conditions (environment) in which prices are set; by improving the competitive environment or influencing the two sides of the market – offer and demand; regulating the protection of the economic competition; by direct action on the price; by fixing the maximum limit or minimum limit prices; policies through the subsidies or tariffs of public or quasi-public goods; regulating the natural monopoly. [2]

The price-competition correlation manifests itself with progressive action on the market, economy as a whole, in terms of efficiency, balance, social welfare. The price level of a good on the market is influenced by the existence of competition, which generates the interest and the real concern of the economic operators to increase the efficiency of the use of resources. Based on the high efficiency of capital and labor, the level of prices may be relatively lower for enterprises that have such an achievement than others who work less efficiently. The resulting effect consists of the position that each enterprise has on the market in relation to customers, compared to the other enterprises. Given that the most sought enterprises, as suppliers, by the customers are those whose sales prices are lower, on equal quality terms, competition leads to efficiency, price movement has low amplitudes, and the probability of restoring the balance is higher. But what is the most important thing is that the ultimate effect of increasing efficiency on competition is welfare. It is said that there is economic efficiency and social efficiency when, based on them, there is an increase in well-being in society. The price regulates through objective norms and reactions the participants' attitudes to market processes.

The third important factor contributing to the adjustment of supply versus the demand is competition. This implies several manufacturers or more buyers, as economic agents, being opposed to the economy based on monopoly. But the monopoly benefits the producer, as being the only seller on the market, he/ she can raise the price by ensuring a very high unit profit margin, while the existence of several competing producers of the same good directly influences the price in the sense of its decrease. The price can no longer be fixed by a single producer, but by all the producers as a whole, but individually, influences the price, adjusting to the level of competition of the market price. In order to attract customers, each manufacturer will be tempted to increase the

price to the level that can ensure his/ her survival by covering the costs and getting the minimum benefit. [6]

The current requirements of the development of market economies are defined by the freedom of action of the economic operators in choosing the field in which they move their capital, in establishing their own manifestation strategies as organized entities regarding the management of production and disposal of goods or services, financial management. The consolidation of the position they hold on the market is influenced by the ownership form (the private one stimulating this consolidation process), able to mobilize all the resources for the efficiency of the activity and, ultimately, to ensure the achievement of the fundamental objective: maximization of the total profit on short term, maximization of the value of enterprise, on long run.

The modern market economy is based on the preservation of the principle of freedom of competition between those exercising the same activity, pursuing the same or similar purpose. Competition is seen as a condition and a guarantee of progress. But the freedom of competition is limited in the honest commercial practices, the partners having the duty to comply with a minimum of morality. Exceeding these limits it sends the character of faithless to competition and engages the responsibility of the person who carries out acts of such qualification, known as anti-competitive practices.

The more and more frequent occurrence of abuses and anti-competitive forms, in the struggle for economic power, for market domination, made the issue of complying with and defending real competition to be subject to legal regulations and procedures for prosecution and sanctioning, suppressing abuses from the rules of competition normality. [5]

The economy mechanism on the market operates based on the supply and demand law, having as a central axis the price that ensures the self-regulation of the market equilibrium. But, because the price cannot fulfill its “supreme” mission as market regulator, its formation must take place under the conditions of the normal competitive environment.

It is defined by several coordinates:

1. the existence of several manufacturers and buyers, a condition that eliminates the possibility of monopoly or monopson and other forms of dominant positions of goods or services on the market;

2. the existence of the range diversification of a homogeneous considered good, a condition that enables multiple possible options from potentially upstream or downstream economic operators with which presumed manufacturers or distributors enter into economic relationships on the market;

3. enterprises behave as rational entities, being concerned, each in turn, to choose the best variants in combining the factors of production in order to achieve the fundamental objective;

4. the price decision to belong exclusively to the economic agents, there being no interference from the Government in fixing the prices as a nominal level;

5. the judgments for decision substantiation to be defined by the requirements of the sustainable development of the enterprise, involving present and future objectives of the enterprise, internal and external objectives in the competitive environment (technical and technological, product quality objectives and competitiveness, environmental protection, etc.);

6. the role of the state to be manifested especially for the regulation of the behaviors, in the sense of regulating the discipline of the economic operators on the market and the supervision of its compliance, in order to eliminate the anti-competitive manifestations;

7. the state intervention in the economy to be usually made through instruments other than the price (by its authoritative fixation as a sale price) and, if necessary, the state to operate the elasticized levers of the controlled prices. For example, limiting the maximum price level leaves the freedom to establish lower prices for the economic agents, under the permissive conditions of the market;

8. the organization of the good and service markets has the objective to improve the quality of the services towards consumers, being also based on efficiency criteria and loyalty behaviors towards the competitors;

9. the manifestation of the price stabilization tendency, a phenomenon demonstrating that there are and manifests the two sides of the market: supply and demand, and the condition of competition, which allow their equilibrium through the free price itself, which is manifested in this case, as equilibrium price;

10. the welfare of the final consumers, assured by the quantitative, qualitative and structural (diversification) existence of goods on the market, in accordance with the maximization of the utility by the consumers, whose prices can be absorbed by their incomes.

All the coordinates of the above defined normal competitive environment converge, in the end, into consumers' welfare. This actually acts as the ultimate objective of the free market functioning and manifesting the role of the state as the supervisor of the free behavior of economic operators on the market.

So, in the open market economy, we are talking about a competitive price, as the minimum selling price of the market. By acting on price reduction, competition helps expand the market by increasing the required amount, becoming more and more powerful when prices are lower. Of course, absurd competition can also become dangerous for sellers and buyers, degenerating into crimes such as: preferential choice of customers, attraction of sales intermediaries, false advertisement, etc.

The competitive price must not be a price for ruining the other manufacturers and act as a barrier to the entry of other manufacturers in the branch. It has to be a cost cover price.

If the sales price decreases, but not under market pressure, but under the pressure of some measures taken by the state to block prices, the quantity demanded on the market will be higher, but the offer will no longer be at the demand level as the producer's interest decreases ( $O < C$ ). In this case, the offer is poor, the quantities produced are insufficient, the consumption is forced down, some consumers cannot buy the goods due to their insufficient volume on the market and high prices. The speculation appears. The state may intervene with maximum price limits or rationalization of consumption. [2]

If the sale price is higher than the equilibrium price, the quantity of products offered on the market increases, but the quantity demanded by consumers is lower and may totally endanger the absorption of the total production ( $O > C$ ). In such situations, in order to support the maintenance of the high level of prices by the state, it is possible to buy the product surpluses, meaning the offer part that exceeds the solvable demand, by public intervention units. Thus, the offer balances in terms of value with the demand, and the surplus of products on which balancing was possible ( $O - C$ ) can be used for export, as a reserve for industrial processing, capitalization in other moments of market functioning, when the offer tends to decrease. But, in order not to directly affect the offer-demand ratio, the state may use subsidies in price or finance the production reduction by the enterprise.

It follows that state intervention adds to the free play of competition to drive the production, price and to help restore the market equilibrium by means of price, indirect taxes or subsidies.

The state is interested in the double quality of intervening on prices. First of all, as a representative of all the members of society, it is invested as a public authority and can take measures to guide the activities destined for exchange on the market, to ensure the satisfaction of all consumers, depending on their income. Second, in order to finance the various economic or social objectives, for which it is directly responsible, it needs resources. Both resources and public expenses are influenced by prices that are subject to taxes and subsidies. Thus, prices are not only the pole of attraction towards which the specific market forces converge, but also economic and financial levers subject to their constant observation and direction by the state. [1]

### 3. Conclusions

The industry's average rate of return is used as an update rate, considering that all firms in a sector are affected by the same risk factors.

Interest rates on deposits are a credible benchmark because banks are considered to be a safe placement.

The average rate of economic return is a benchmark for the performance of any project to be compared with the overall performance of the entire economy in which it operates.

In the context of the development of the national economy, the functioning of the social reproduction mechanism, the use of resources is a rational process in which expenditures designed to meet social needs must be dimensioned in a predictive context, depending on the parameters of the future social need, consumption and foreseeable effects from the next steps in order to compare them.

Under market economy conditions, where ownership and private initiative hold predominant weights, the state has to use simple and flexible economic methods so that they do not stop, but on the contrary, encourage the development of free activities and their diversification.

### 4. Bibliography

1. **Cistecan Lazăr**, Economy, efficiency and financing of investments, Economica Publishing House, Bucharest, 2010;

2. **Dragotă Victor, Ciobanu Ana Maria and others**, Financial management, Economica Publishing House, Bucharest, 2003;

3. **Lăpăduși Mihaela Loredana, Florea Ianc Maria Mirabela**, Analysis of the influence of a company's indebtedness on the financial risk, Annals of the „Constantin Brâncuși” University of Târgu Jiu, Economy Series, Special Issue/2015 - Information society and sustainable development, Ed. „Academica Brâncuși” Publisher, ISSN 2344 – 3685/ISSN-L 1844 – 7007, pag. 193;

4. **Luca Gabriel Petru, Vergea Ion**, Financial management and pricing techniques, Tehnopress Publishing House, Iasi, 2006;

5. **Vasilescu I., Românu I., Ciocea C.**, Investiții, Ed. Economică, București, 2008;

6. **Văduva Cecilia Elena**, Investments, Academica Brancusi Publishing House, Tg-Jiu.