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**Faculty of Economic Science**



**International Scientific Conference**

**MODERN PARADIGMS IN THE DEVELOPMENT OF THE  
NATIONAL AND WORLD ECONOMY**

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**CHIȘINAU, REPUBLIC OF MOLDOVA**



Scientific papers in extenso Modern Paradigms in the Development of the National and World Economy



**UNIVERSITATEA DE STAT DIN MOLDOVA**

**Facultatea de Științe Economice**



**Conferința Științifică Internațională**

**PARADIGME MODERNE ÎN DEZVOLTAREA ECONOMIEI  
NAȚIONALE ȘI MONDIALE**

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# PLANNING OPERATIONS WITH DERIVATIVES IN NON-FINANCIAL ORGANIZATIONS

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***Abstract.** Planning among the management functions has a particular importance in the organization's activities, because at this stage management decisions are made. In the case of derivatives usage in the non-financial organizations, the specifics of derivative instruments complicate the planning process of related operations. In the article various features of planning operations with derivatives in non-financial organizations have been studied, taking into account the current practice and existing recommendations for the implementation of operations with derivatives in organizations of the real sector of the economy. As a result, it was found that the strategic justification of the use of derivatives on the one hand will increase the involvement of senior management in the management decision, on the other hand – to identify objective prerequisites for the use of derivatives in the company's activities. The results of the strategic analysis have been proposed to use in the development of three functional strategies for using derivatives: risk hedging, speculative operations, and issuing options, each of which involves different goals and tools. Such approach to the derivatives operations planning process will improve the quality of management decisions regarding derivative instruments in non-financial organizations.*

***Keywords:** derivatives, planning, hedging, speculative operations, non-financial organizations.*

Planning among the management functions may be considered as the most important in the organization's activities, because at this stage management decisions are made on various issues of the company's development. An effective plan assumes minimal adjustments in the implementation process and should ensure that the planned effects would be obtained. In the case of derivatives usage, the specifics of derivative instruments complicate the planning process connected with such operations. One of the aspects of this specificity is that for non-financial organizations operations with derivatives are not the part of their day-to-day business. But in some cases the use of derivatives has a significant potential for improving the company's performance, which, however, can only be fully disclosed if science-based approaches to planning operations with derivatives would be used. Therefore, the purpose of this work is to develop an effective algorithm for planning operations with derivatives for non-financial organizations. To do this, the following tasks will be solved:

- to justify relationship between the results of strategic analysis and potential areas of derivatives usage;
- to propose an algorithm for planning operations with derivatives in non-financial organizations.

As noted in the study of derivatives usage at the corporate level, conducted by M. Bartram, non-financial organizations are more likely to hedge against the risk of changes in exchange rates, interest rates or commodity prices than to attempt to take speculative positions in order to profit from short-term price fluctuations. Also it is noted that most companies resort to the use of derivatives from time to time, based on their vision of the market at a particular time [1]. Thus, non-financial organizations use derivatives mainly to hedge risks in order to ensure the predictability of cash flows and, as a consequence, increase the value of the company. Accordingly, speculative transactions with derivatives, conducted by financial department, should cause healthy mistrust from the side of control department and senior management as well. However, even if there are no speculative transactions, the use of derivatives solely for hedging doesn't guarantee that significant unexpected losses won't be received [2].

In our opinion, for the purpose of planning operations with derivatives in non-financial organizations speculative transactions may still take place, but there must be objective prerequisites for their existence, because in some cases this direction of derivatives usage can bring benefits for the company. For example, the strategy for tolling oil refining with the sale of

supply options for the sale of petroleum products. In turn, there must also be appropriate grounds for using derivatives to hedge risks. That's why the necessity of derivatives usage both for hedging and speculative purposes should be justified based on the results of a strategic analysis of the company's activities.

At the moment, there are many different methods of strategic analysis, the choice of which depends on the managers of a particular company. As K. A. Lobanov notes, " ... the methods of strategic analysis should be selected taking into account the characteristics of a particular organization and specific strategic situation. But each method has the ability to solve only a certain range of tasks, that's why a certain set of methods is necessary to carry out objective analysis" [3, p.181]. In the context of derivatives usage by non-financial organizations, in our opinion, the most important issue would be the results of strategic analysis, but not the choice of certain method. As a reference point, we have chosen the classic SWOT analysis, which can be combined with other qualitative and quantitative methods of strategic analysis [4, p.205]. Among the results of SWOT or other methods of strategic analysis, there may be grounds for derivatives usage. Therefore, we propose a model for determining the directions of derivatives usage in non-financial organizations based on the results of strategic analysis (figure 1).

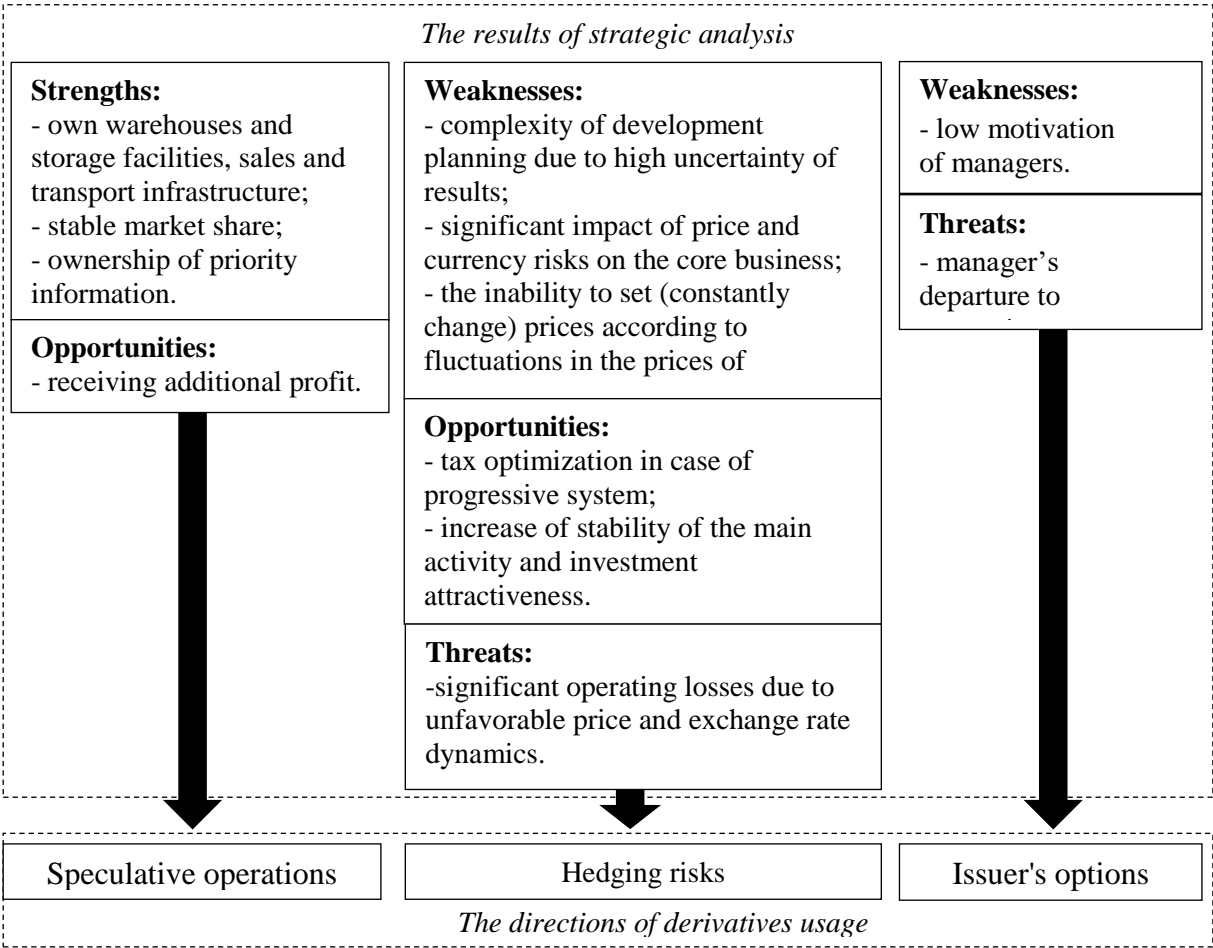


Figure 1 – The proposed model for determining the directions of derivatives usage based on the results of strategic analysis

Source: own elaboration

As can be seen from the information presented in figure 1, speculation using derivatives, in our opinion, should initially be based on any competitive advantages of the non-financial company, and it is better to abandon the use of periodically occurring one-time opportunities for obtaining additional profit, since it is likely that not all the consequences of the relevant actions will be taken into account. In turn, the use of derivatives for hedging risks will be justified if

investors and shareholders have a positive attitude to this risk management tool, or if the impact of price, currency and interest rate risks on the company's activities is very significant and is assessed as a negative factor. We also highlighted the situation with low motivation of senior managers, when the risk of their leaving for competitors is high. In this case, it is advisable to use the Issuer's options as one of the methods of motivation, which give their owners the right to receive significant bonuses if the company's shares rise in price to a certain target value. Thus, the strategic rationale for the use of derivatives will allow, firstly, to involve senior management in the decision-making process, and, secondly, to determine the long-term strategic basis for working with derivatives. The next step, in our opinion, will be the development of functional hedging or speculative strategies, or options programs. The full algorithm for planning operations with derivatives in non-financial organizations can be presented in the following form (figure 2).

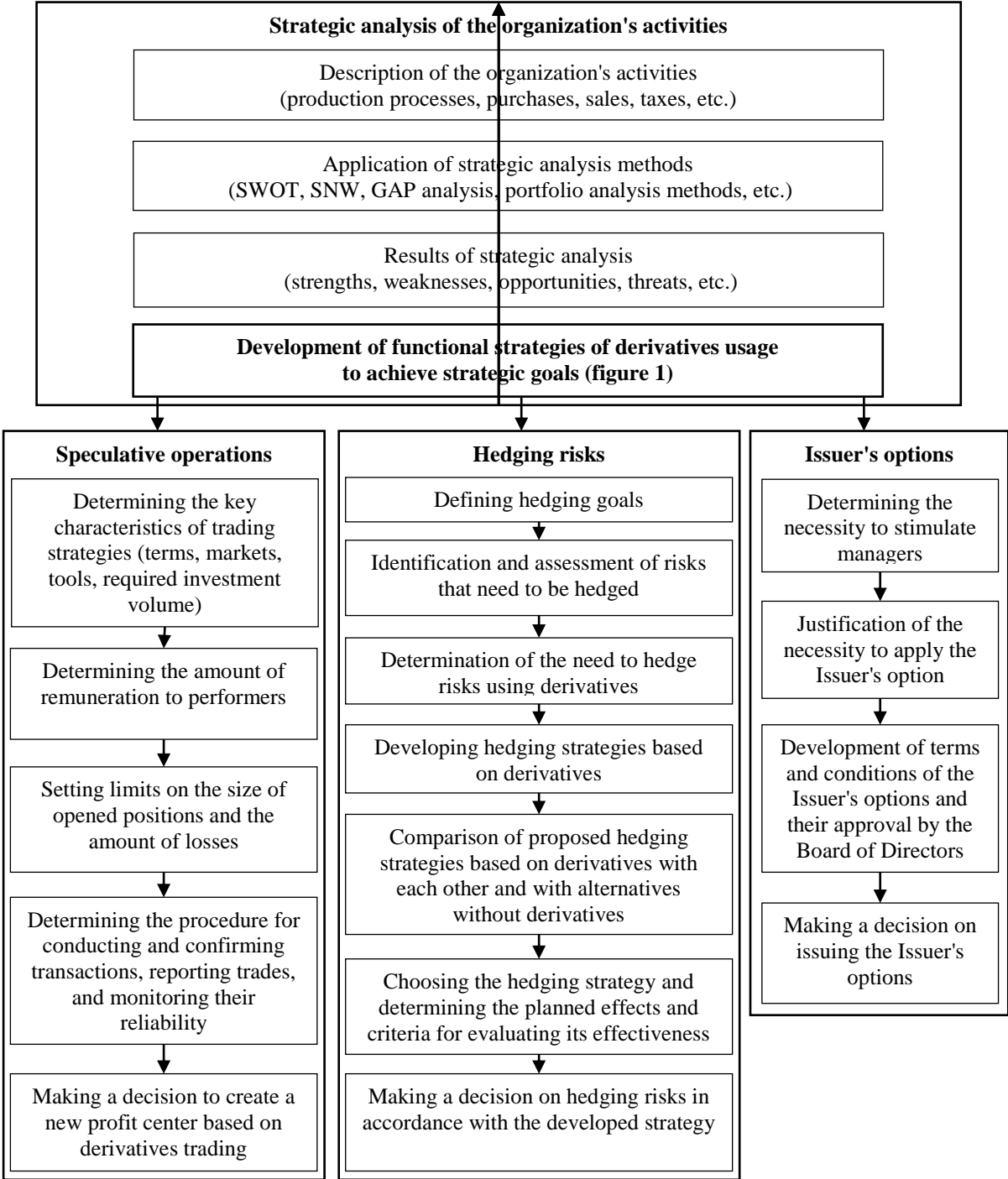


Fig. 2 – Algorithm for planning operations with derivatives in non-financial organizations

Source: own elaboration

The special feature of the proposed algorithm for planning operations with derivatives in non-financial organizations, shown in figure 2, is that we do not exclude the possibility of speculative operations by non-financial organizations, but for such transactions there should be objective strategic background. Similarly, risk hedging using derivatives should follow from existing strategic problems that can be solved with the use of derivatives. This provides a link between the overall development strategy of the organization and functional strategies for hedging risks, speculation, and options programs. As can be seen in figure 2, the sequential passage of the proposed algorithm for planning operations with derivatives in non-financial organizations ends with the adoption of an appropriate management decision, which should then be communicated to performers in order to implement it. This approach allows to present the process of planning operations with derivatives in a more systematic way with clearly defined boundaries between hedging and speculative operations.

Thus, planning operations with derivatives is one of the key stages in managing derivatives in non-financial organizations. Although derivatives are mostly used by non-financial organizations to hedge risks, in some cases complex hedging strategies may have a speculative element. In addition, there may be opportunities to get additional profit that is not connected with the main activity of non-financial organization. Such operations usually involve taking on additional risk, which, under the guise of hedging, remains without proper control procedures. As a result, in the event of unfavorable movement of market variables, it is possible to receive significant losses that are not caused by the main activity and are completely unexpected by the company's management and owners. To avoid such negative situations, it is advisable to differentiate between hedging and speculative operations at the planning stage. For that purpose had been proposed the model for determining the directions of derivatives usage based on the results of strategic analysis, which establishes that derivatives in the company's portfolio should appear on the basis of objectively existing prerequisites. At the same time, the strategic level of analysis and planning implies the involvement of senior management in the process of making management decisions regarding derivatives, which should further facilitate the interpretation of the results of derivatives usage. In turn, the results of strategic analysis should be reflected in the development and subsequent implementation of functional strategies. For non-financial organizations, had been proposed three such strategies: speculation, hedging, and issuing Issuer options, which set different goals and are based on the use of different tools. These functional strategies, combined with the previous strategic analysis, represent the proposed algorithm for planning operations with derivatives, the use of which will allow non-financial companies to organize planning work in relation to derivatives at a higher level, and as a result, improve the quality of management decisions in this area.

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## **MODALITĂȚI MODERNE DE COMUNICARE MANAGERIALĂ ÎN ÎNTRINDERILE VINICOLE DIN REPUBLICA MOLDOVA Viorica CARAUȘ**

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