

## PROBLEMS OF INSURANCE ORGANIZATIONS INVESTMENT PORTFOLIO MANAGEMENT

### ПРОБЛЕМИ УПРАВЛІННЯ ІНВЕСТИЦІЙНИМ ПОРТФЕЛЕМ СТРАХОВОЇ ОРГАНІЗАЦІЇ

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*The article is devoted to analysis of insurance companies' investment activity problems. The main tasks of insurance companies investment portfolio management that arose in the investment portfolio management process as a part of investment strategy realization have been defined: ensuring high rates of development of the insurer due to effective investment activity; maximization of profit; minimizing investment risks; ensuring financial stability and solvency of the insurer; acceleration implementing the investment project. The influence of various types of risks on the results of the investment activity of the insurance company has been analyzed. The program of actions on formation of the investment portfolio realization has been proposed. Problems and peculiarities of optimization of investment potential management process of insurance organization have been defined. The indicators of evaluation of the investment activity of the insurance organization have been characterized.*

**Key words:** insurance companies' investment activity, investment portfolio, investment strategy, investment risks, rates of investment activity efficiency.

*В статті розглянуто проблему управління інвестиційним портфелем стра-*

*хової організації. Определены задачи управления инвестиционным портфелем страховой компании, которые возникают в процессе реализации инвестиционной стратегии, а именно обеспечение высоких темпов развития страховщика за счет эффективной инвестиционной деятельности; максимизация прибыли; минимизация инвестиционных рисков; обеспечение финансовой устойчивости и платежеспособности страховщика; ускорение реализации инвестиционных проектов. Проанализировано влияние различных видов рисков на результаты инвестиционной деятельности страховой компании. Предложена программа действий по формированию и реализации инвестиционного портфеля. Названы проблемы и особенности оптимизации процесса управления инвестиционным потенциалом страховой организации. Охарактеризованы показатели оценивания результативности инвестиционной деятельности страховой организации.*

**Ключевые слова:** инвестиционная деятельность страховщика, инвестиционный портфель, инвестиционная стратегия, инвестиционные риски, показатели эффективности инвестиций.

*У статті досліджено проблему управління інвестиційним портфелем страхової організації. Визначено задачі управління інвестиційним портфелем страхової компанії, які виникають в процесі реалізації інвестиційної стратегії, а саме забезпечення високих темпів економічного розвитку страхової компанії за рахунок ефективної інвестиційної діяльності; забезпечення максимізації прибутку; забезпечення мінімізації інвестиційних ризиків страховика; забезпечення фінансової стійкості та платоспроможності страхової компанії; прискорення реалізації інвестиційних проектів. Визначено програму дій з формування та реалізації інвестиційного портфеля, яка включає дослідження зовнішнього інвестиційного середовища; розроблення стратегії інвестиційної діяльності та стратегії формування інвестиційних ресурсів; оцінювання інвестиційної якості окремих фінансових інструментів та формування інвестиційного портфеля тощо. Важливим аспектом процесу управління інвестиційним портфелем страхової організації є управління інвестиційними ризиками; їх оптимізація є важливою умовою забезпечення фінансової стійкості та платоспроможності в процесі здійснення інвестиційної діяльності. Ризик інвестиційної діяльності страхової організації є не лише інвестиційним ризиком, оскільки він також означає втрату коштів страхувальників. Завдання оптимізації інвестиційних вкладень страхових організацій вирішуються з використанням моделей портфельного інвестування (модель Г. Марковіца, індексна модель В. Шарпа (САРМ), арбітражна теорія розрахунків С. Росса (АРТ)). Критерієм оптимальності рекомендовано прийняти максимум інвестиційного доходу на вкладений капітал за заданого обсягу інвестиційних ресурсів та сприйнятого рівня ризику. Оцінювання ефективності окремих інвестиційних інструментів здійснюється на основі зіставлення обсягу інвестиційних затрат та сум зворотного грошового потоку за ними. Для оцінювання ефективності вкладень у фінансові активи використовуються показники доходності. Розглянуто показники оцінювання результативності інвестиційної діяльності, визначено особливості їх застосування.*

**Ключові слова:** інвестиційна діяльність страховика, інвестиційний портфель, інвестиційна стратегія, інвестиційні ризики, показники ефективності інвестицій.

**Problem statement.** In a market economy, insurance occupies an important place ensuring social-economy stability public safety, entrepreneurship development, effective protection of nationals property interests from a large number of perils.

Insurance companies play an important role in economic transformation in Ukraine. Accumulation of substantial financial insurance resources causes the need to manage the movement of these resources for maintenance at the required level the financial security of insurance obligations. specific nature of management is associated with risk activity character, probability nature of insured events and consequently, with the undefined character, of insurance payment.

Insurance organizations resources management allows reacting promptly to changes in the internal environment and the internal condition of the insurer and one of its goals is the formation of a balanced insurance portfolio as the basis of stable financial position of the insurance company.

But changing economic conditions create new challenges the solution of which depends on the stability of the insurance market. At the same time, special attention should be paid to the effective management of insurance reserves. Under-developed are issues of formation of investment resources of the insurer are in the context of the establishment of a market economy. Scientific justification requires

methodical provision of optimization of investment resources in the context of insurance activity profitability ensuring. It should be noted that the solution of problems must be complex that ensures efficiency of management activities.

However, for the majority of domestic insurance companies the main source of income is insurance activity, and investment activity is of a supplementary nature.

#### **Analysis of recent research and publications.**

The growth of Ukrainian investment markets can be largely secured through the effective use of investment resources of insurance companies. To date, this area of insurance companies' activity has not been sufficiently developed. However, in the future, the realization of this activity can ensure the growth of economy. In today's environment, solving economical, legal and institutional, functional, informational, analytical and social problems that hamper the development of the domestic insurance market and insurance companies' effective investment activity performing is particularly important. In this context, it is of particular importance the system of measures of activation and development of insurance companies' investment activity.

Significant contribution to the study of theoretical, methodological and legal and institutional foundations of insurance company investment activity was made by N.V. Tkachenko [1, p. 8–12], M.M. Alexandrova [2, p. 58–62]. Problems and organizational and methodological aspects of insurance company investment strategy formation and improvement have been investigated by T.S. Gavriyak [3, p. 98–100]. In the work of R.V. Pikus and D.M. Nesterova [4, p. 8–12] the main principles of insurance company investment strategy formation have been investigated and the main principles of insurance portfolio management have been defined. But the peculiarities of insurance companies' funds investment are not studied enough. At the same time the problem of increasing the role of investment in insurance as well as methodological approach to justification of effective formation and management of insurance company investment potential need further development and synthesis.

**Setting a task.** The purpose of the article is study of theoretical aspects and clarification theoretical and methodological grounds insurance organizations investment portfolio management as well as elaboration of investment process improvement directions aimed at Ukrainian insurance business efficiency increasing.

**Outline of the main research material.** Insurance organizations investment portfolio management despite of its components diversity could be considered as integral management object. It is known that type and structure of insurance organizations investment portfolio management strongly depend on

insurance company investment strategy. The main aim of insurance organizations investment portfolio formation is investment activity realization ensuring by selecting the most effective and safe investment instruments. insurance company investment strategy can be viewed as the main management controller of insurance organizations investment portfolio management and to define it as a system of long-term purposes of investment activity and as choice of rational ways of ensuring the desirable investment results.

It should be noted that the investment strategy is influenced by external and internal factors taking into account which investment portfolio is formed and is estimated used profitability, risk and liquidity criteria [5, p. 35–36].

One can define the main tasks of insurance company investment portfolio management [6, p. 36–45]:

- ensuring higher pace of economic development of insurance company due to effective investment activity;
- ensuring the maximum profit (in the presence of some alternatives, the most profitable is chosen which secure the acceptable risk ratio);
- ensuring the investment risk minimization (by unfavorable conditions on financial market risks may cause not only investment profit loss but negative consequences in insurance activity performance because the most part of invested capital of insurance company is the debt capital formed at the expense of insurance resources);
- ensuring financial stability and solvency of insurance company during investment activity implementation.

Formulated objectives of investment portfolio management are closely linked. Thus, ensuring a high rate of development it is only at the expense of selection of high-profitable projects and acceleration of their realization. In its turn profit investment maximization is conducted by increasing of investment risks that demand their optimization. Risk minimization is an important condition of Insurance organizations financial reliability and pay ability in the process of investment activity. So, considering the above-mentioned objects of ensuring the high temps of Insurance organizations economic development with adequate level of financial reliability and considering recommendations of the source [6, p. 113–125; 7], one can define the investment portfolio formation and realization program:

- investigation of external investment environment and forecast of the situation on investment market (investment activity legal conditions considering investment forms; analysis of current state of the market; forecast of the situation on investment market in total or in certain segments etc.);
- elaboration of strategic directions of insurance organizations investment activity that ensures investment short-term objects formation;

- elaboration of investment strategy realization;
- estimation of investment quality of financial instruments and identification the most effective of them;
- investment portfolio as set of investment programs formation and its estimation using profitability, pick and liquidity criteria;
- monitoring organization of certain projects realization (project progress control and analysis);
- writing on solutions of well-timed withdraw from non-effective projects and financial instruments sale;
- investment portfolio correction by capital reinvestment instruments selection.

Insurance organizations investment portfolio formation is closely linked with its investment policy. To estimate the investment portfolio quality it is necessary to define the quality of insurance organization investment policy, to define its correspondence to liabilities, structure and influence of investment incomes on total profitability level.

It is known that insurance organizations investment activity is closely linked with significant risk. Investment portfolio management theory also includes risk management and proposes the different ways of its minimization. The total risk, linked to a particular investment object, can occur from a combination of different sources. The main types are: business risk; financial risk, inflation risk, interest rate risk, liquidity risk, market risk, variable risk and so on. Moreover, total investment risk includes two components: diversified and non- diversified risk.

Insurance organization investment risk is not only investment risk since additional restriction as loss of policyholders funds is imposed, because insurer' risks not only by his own money but insurance resources which are formed by insurance premiums. While the measures of risk minimization also are compounds of investment management process. Estimation of probable risks when analyzing the investment instruments and risk management in the next stages of the project cycle allows to reduce the consequence of risks to an acceptable minimum. It should be noted that investors mainly determines the risk level on the hunch rather than according to modern portfolio theory [7].

Investment potential management process optimization is a pretty pressing task for insurers. The choice of management model depends on total amount and financial possibilities, chosen investment policy, on existence of direct and indirect government restrictions or incentives to choose the investment partners, conditions of their activity etc. Insurance organizations investment optimization challenges are solved using investment portfolio models as G. Markovitz model (dispersion analysis), Sharp' index model (CAPM), Ross' arbitrage calculation theory (APT) [6, p. 113–127].

Problem of optimal distribution of insurance organizations' funds is closely linked with optimal criterion choice. Based on effective investment portfolio theory, the main task is to obtain the highest profitability for certain risk level or the lowest risk level for given profitability level. In this regard it is recommended for domestic insurance companies to accept the maximum of investment income per invested capital with a given amount of investment resources and an acceptable level of risk as the criterion of optimality.

The other pressing task of investment activity management is an estimation of financial instruments efficiency estimation which is performed basing on comparison of investment costs a value and sums of amount of return cash-flow which is measured using interest on the bonds, shares dividends, agency commissions etc. For efficiency estimation of investments the profitability indices are used.

In general the investment portfolio market value at a point in time is calculated as total sum of market values of portfolio securities now. The investment portfolio profitability is the most important index for insurance organization. For insurance organization in some situations it is convenient to use indices of investment activity cost-efficiency that produce information on investment performance. Another aspect of investment activity cost-efficiency calculation to be addressed is the origin of funds used for investments. Specificity of insurance organizations lies in leverage usage rather than own funds. Normally used such rates [6, p. 36–40] (table 1).

Table 1

**Rates of insurance organizations' investment activity efficiency**

Index	Accounting frameworks	Comment
Returns on investment	$(D - C) / D$	D – investment income, C– investment costs.
Investments as the performance coefficient	$(D - C) / C$	
Profitability of own capital	$R - (R - K)Z$	R– total income of investment capital, K – calculated interest rate for technical loan capital, Z– rate of indebtedness.
Relative deterioration of investment	$I_k / B_i$	$I_k$ – cumulative investments write-off, $B_i$ – investments acquisition value.
Investment quote	$N_i / P_i$	$N_i$ – investment income in a year, $P_i$ – initial investment.
Rate of investment capital turnover	$P / (Co - LC)$	P – volume of investment realization, Co – own capital, LC – loan capital.

Source: author's development

It could be noted that insurance technical indebtedness, the total profitability of investment capital and calculated interest rate for insurance loan capital influence on own capital profitability. The latter increases by growing of loan capital, at the same time as total profitability of loan capital exceeds interest rate of loan capital. Also the efficiency of insurance organization liabilities by using insurance organization investment portfolio formation model. Considering the structure of investment resources formation, one can define the profitability rates of insurance resources investment and estimate the efficiency of every source of insurance organization investment resources.

It would be wrong, however, to argue that rates calculation is decisive in insurance organization investment strategy. But, on the one hand, these results could be used for rating formation and allow to submit an overview of insurance organization investment activity.

It should be noted that domestic insurance organizations are paying insufficient attention to investment resources activity optimization, due to the unsaturation of insurance market and low coverage of insurance pitch that allows the insurers for quite a long time to develop not through insurance activity intensity increasing but through access to free segments of the insurance market. Thus insurance organization internal structure improvement problem has not been so actual, since all attention was paid to the search for channels for the marketing of insurance services. In this regard, the load in the brut tariff was fully covered the acquisitioned and administrative losses and the problem of investment profitability increasing has not been among the priority targets and did not pay attention to it.

**Conclusions from the study.** Insurance organizations investment activity is an integral part of its activity, thus it should be noted that insurance organizations do not fully utilize investment potential.

The tasks of insurance company investment portfolio management faced in the investment strategy realization are interrelated and cover various processes of insurance company investment activity.

The risk management is an important point of insurance company investment portfolio management process; risk optimization is an important condition of maintenance of financial stability and solvency in implementing investment activity. Thus formulated objectives of insurance company investment portfolio management allow to define action programs of investment portfolio formation and realization.

Further area of research is mathematical model of insurance company investment activity elaboration and solution of the problem of efficiency estimation of insurance company investment activity.

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This article is devoted to analysis of insurance companies' investment activity problems, tasks, tendencies and perspectives. Insurance companies play an important role in economic transformation in Ukraine. Accumulation of substantial financial insurance resources causes the need to manage the movement of these resources for maintenance at the required level the financial security of insurance obligations. specific nature of management is associated with risk activity character, probability nature of insured events and consequently, with the undefined character, of insurance payment.

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Insurance organizations investment activity is an integral part of its activity, thus it should be noted that insurance organizations do not fully utilize investment potential. The tasks of insurance company investment portfolio management faced in the investment strategy realization are interrelated and cover various processes of insurance company investment activity. The risk management is an important point of insurance company investment portfolio management process and is an important condition of maintenance of financial stability and solvency in implementing investment activity.

**Results.** Results of research are aimed at estimation and improving the investment activity management system of insurance companies and can be implemented in practice. The application of proposed recommendations in practice will ensure formation and effective operation of investment activity management system of insurance companies.

**Value/originality.** Analyzing insurance organizations' investment activity efficiency service sphere, this economic category faces certain analytical complexities. Challenges and problematic issues outline prospects for further researches of insurance organizations' investment activity. In particular, estimation of investment portfolio efficiency.