

# Management of Attracting Investment Resources of Enterprises to Ensure Their Economic Security in Circular Economy

Anna Pohrebniak<sup>1</sup>, Olena Arefieva<sup>2</sup>, Kateryna Boiarynova<sup>1</sup>, Serhii Arefiev<sup>1</sup>, Volodymyr Davydenko<sup>2</sup>

<sup>1</sup>National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", Kyiv, Ukraine

<sup>2</sup>National Aviation University, Kyiv, Ukraine

## Abstract

The article substantiates the principles of managing the attraction of investment resources of enterprises to ensure their economic security in circular economy. It is proved that increasing the efficiency of investment resources management of the enterprise makes it possible to ensure their economic security in a competitive environment by expanding, upgrading, innovative re-equipment of production facilities, expansion or diversification of production. Management of investment resources in the enterprise provides an opportunity to justify the balance and the possibility of attracting endogenous or exogenous investment resources while ensuring economic security in circular economy. Endogenous sources of investment resources include endogenous investments of internal and external origin. Since their own investment resources often cannot fully meet the investment needs of enterprises, there is a need to attract investment resources from exogenous sources. Investment resources of exogenous sources are divided into attracted and budget allocations. The advantages and disadvantages of attracting endogenous and exogenous investment resources are highlighted. The stages of management of investment resources of the enterprise for investments of endogenous and exogenous origin are substantiated.

## Key words:

*investment resources; circular economy; economic security; competitiveness of enterprises.*

## 1. Introduction

Ensuring the economic security of enterprises in today's competitive environment, accompanied by threats and risks, including those caused by global trends in society, such as a pandemic, increase scientific interest in managing the attraction of investment resources. For many centuries, the management of investment processes has been a topical issue for enterprises, various fields of activity, regions and states in general. This is due to limited financial resources, unforeseen risks of the financial sector and the activities of economic entities, etc. Inflationary processes, limited opportunities for self-financing of economic entities require the search for new approaches to managing the attraction of investment resources of enterprises to ensure their economic security in a competitive environment.

Investment process management has a positive impact on the economic growth of investors. However, it is a prerequisite that the increase in investment from an entity of any level must be sufficient to offset inflation losses and compensate the investor for the risks of the investment.

Improving the efficiency of management of investment resources of the enterprise makes it possible to ensure their economic security in a competitive environment through expansion, renewal, innovative re-equipment of production facilities, expansion or diversification of production. In turn, this contributes to increasing the profitability of enterprises, strengthening its competitive position in the market, ensuring the greening of production and solving environmental problems in accordance with the principles of the circular economy, social infrastructure development and economic growth in general.

The purpose of this study is to substantiate the principles of managing of attracting investment resources in the enterprise to ensure economic security in competitive environment.

## 2. Literature review

The issue of management processes of attracting investment resources of enterprises in circular economy in order to ensure their economic security is extremely relevant and timely. Significant attention has been paid to these issues in the research of leading scientists, including: Appiah M.K. (2019) [1]; Balatskyi I. (2021) [2]; Boichenko S. (2014) [3]; Chowdhury R.B. (2021) [4]; Derhaliuk M. (2021) [5]; Ivanenko T. (2018) [6]; Karpenko, O. (2021) [7]; Khanin S. (2021) [8]; Kong Q. (2021) [9]; Kovalenko N. (2021) [10]; Lejda K. (2017) [11]; Li X. (2021) [12]; Londoño N.A.C. (2021) [13]; Mishchuk I. (2021) [14]; Nikolova L.V. (2020) [15]; Papageorgiou A. (2021) [16]; Popelo O. (2021) [17]; Roiter L.M. (2021) [18]; Samiilenko H. (2021) [19]; Sananda I. (2021) [20]; Sharma H.B. (2021) [21]; Shevchuk N. (2021) [22]; Shkilniuk I. (2008) [23]; Shtangret A. (2021) [24]; Tkachenko T. (2021) [25]; Tulchynska S. (2021) [26]; Vovk O. (2021) [27]; Wang D. (2020) [28]; Wang Y. (2020) [29]; Yang J. (2017) [30];

Yang L. (2021) [31]; Yue Q. (2021) [32]; Zvimba J.N. (2021) [33] and others.

The authors of the article [20] argue that in modern conditions there is a growing need to implement a complete business approach that performs all major business functions. Researchers note that comparing countries with developed and developing countries, this document identifies a variety of issues related to investing in ERP. The authors analyze the successful and unsuccessful practice of ERP capital investment in financial accounting in countries. Scientists [31] are considering investing in the environment of the enterprise. The authors concluded that with increasing maturity of environmental management, the negative impact of the degree of lack of resources on the scale of investment in environmental protection is significantly reduced.

The research of scientists [32] is based on the analysis of the formulation of scientific and effective subsidy policy, and also offers companies to effectively use government subsidies, actively carry out research and innovation activities and improve the level of investment activity of the enterprise. The aim of the study [9] is to prove that the overall productivity ratio has a positive effect on increasing investment. The authors argue that factor price distortions reduce the role of productivity in increasing investment propensity.

The authors [29] prove the relevance of research on the influence of motivation to search for natural resources on the choice of location of foreign investment. According to the study, the researchers concluded that the natural resources of the host country have a significant positive impact on the choice of location of foreign investment of Chinese enterprises. The study [28] analyzes that foreign direct investment in enterprises based on mineral resources is a significant long-term investment. The authors of the article have developed a new method that combines the method of coefficient of variation, system clustering and merging of multiclassifiers.

The authors of the article [12] propose a game model of decision-making on investment in information security of the enterprise. The model takes into account the influence of the substitution rate among enterprises, the number of enterprises and the probability of hacker intrusion, and also investigates the optimal level of investment among enterprises. Scientists [14] have developed a methodology for assessing the economic security of industrial workers. The authors argue that the application of the proposed methodology will contribute to a rational and effective management decision-making process regarding the social policy of managers. The purpose of the article [18] is to study the current problem of ensuring the economic security of poultry enterprises. The authors argue that the growth of quantitative indicators of poultry production is not a criterion for economic security of enterprises in the industry. Scientists propose to assess the economic

security of poultry enterprises using traditional indicators and modern models that optimize the structure of the balance sheet.

The aim of the study [21] is to analyze the impact of COVID-19 on the progress of the SDGs and to analyze the incentives for environmental recovery due to solid waste management based on the circular economy. Researchers are proposing a tough policy that prioritizes investment in decentralization of municipal solid waste systems, localization of supply chains, recycling and environmental recovery. The authors [13] explore the prospects for the development of a circular economy in the context of chemical engineering and sustainable development. The study is based on the use of efficient technologies, efficient use of resources, as well as minimization and valorization of waste and emissions.

### 3. Results

As is well known, all investment resources can be divided into two groups according to the source of their income, referring to endogenous or exogenous sources. Management of investment resources in the enterprise provides an opportunity to justify the balance and the possibility of attracting endogenous or exogenous investment resources while ensuring economic security in circular economy. Managing the attraction of investment resources in the enterprise by finding a balance between exogenous and endogenous investment resources increases the efficiency of investment, activates investment processes in the enterprise, reduces the demand for borrowed capital, increases capital turnover, reduces investment risks. All this contributes to increasing economic security, increasing the potential of the enterprise to its growth and converting the potential into capital.

Managing the attraction of investment resources at the enterprise provides an opportunity to make a more thorough assessment of the multi-vector sources and opportunities to attract investment resources. Management decisions to attract investment resources in the enterprise are based on the fact that the investment resources of the enterprise form the capital and total value of the enterprise in financial, tangible, intangible, intellectual forms. And the capital structure of the enterprise affects the level of its profitability, solvency, stability and the level of economic security of the enterprise as a whole.

Management of investment resources in the enterprise affects the capital structure and efficiency of its use, and investment resources can be divided into exogenous and endogenous depending on the source of approval. When attracting investment resources, any company always starts with endogenous sources of investment resources, formed by the initial contributions of the founders of the company,

accumulation of profits, depreciation, sale of assets of the company, labor savings, payments from insurance companies and other possible endogenous sources of investment.

Endogenous investment resources of enterprises have their unconditional advantages and disadvantages. The advantages of endogenous sources of investment resources include:

- speed of time and ease of making management decisions to attract investment resources at the enterprise level;
- since there are no different payments for the use of endogenous investment resources, under favorable external conditions, a high opportunity for the company to increase profits and ensure the stability of economic security of the enterprise;
- reducing the risk of bankruptcy of the enterprise by attracting endogenous sources of investment resources;

- ensuring the long-term financial stability and solvency of the enterprise.

But, despite the convincing advantages of endogenous investment resources, they have their drawbacks, which include such properties as:

- inability to provide the required amount of investment resources due to their limitations, which is the main motivating factor for attracting exogenous investment resources;
- the lack of opportunity to increase the return on equity, as it is impossible to increase financial profitability over economic without attracting investment resources from exogenous sources;
- sometimes high cost of investment resources relative to resources from other sources.

Endogenous sources of investment resources of the enterprise can be divided into investment resources of internal and so-called external origin (Fig. 1).

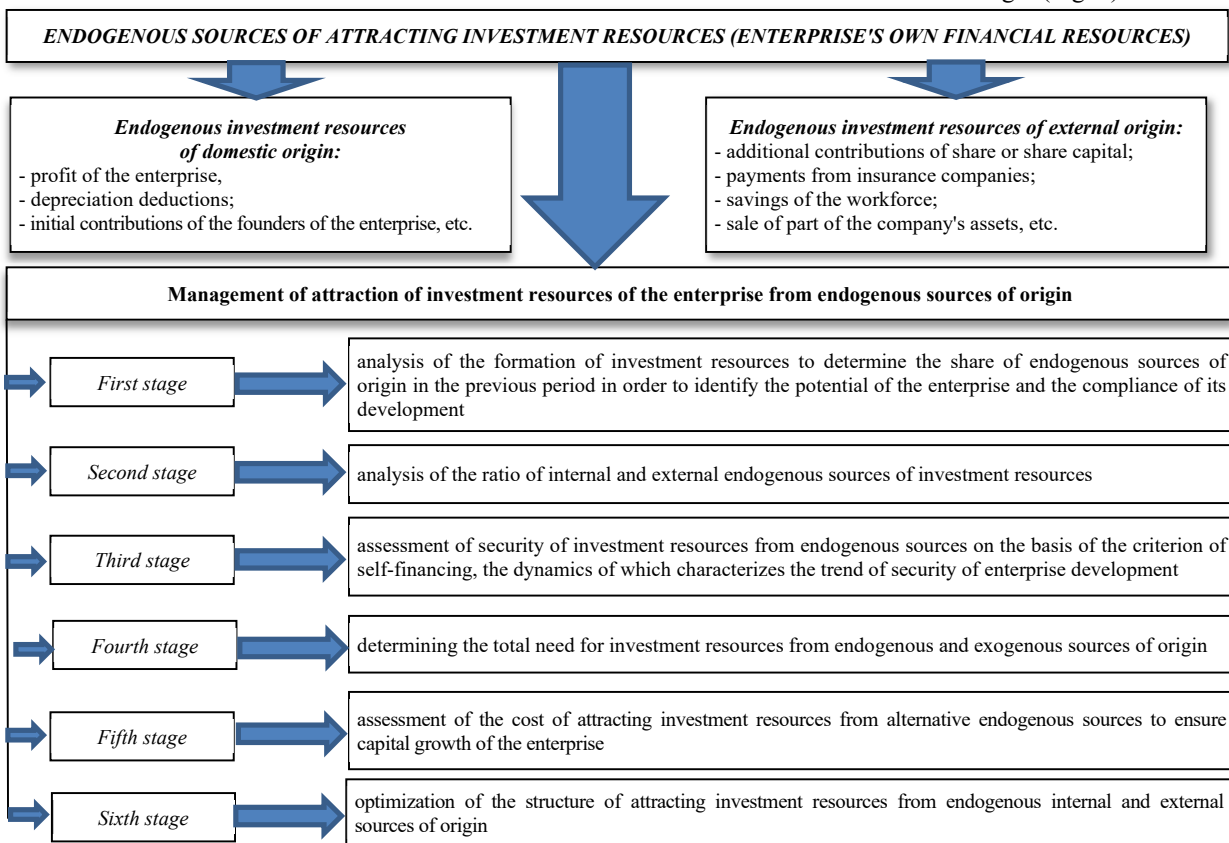


Fig. 1 Management of attracting investment resources of the enterprise from endogenous sources of origin.

Source: developed by the authors

To endogenous sources of internal origin (*Esio*), include investments that are formed by:

- retained earnings of enterprises (*Re*);
- depreciation deductions (*Dd*);

- other internal sources of the enterprise (*Ois*).

Thus, their sum can be represented as the following formula:

$$Esio = Re + Dd + Ois. \tag{1}$$

If we examine in more detail the endogenous investment resources that have, so to speak, external origin, they include:

- additional contributions of share and / or share capital (*Acsc*);
- sales of part of the company's assets (*Sca*);
- savings of the labor collective of the enterprise (*Sw*);
- payments from insurance companies (*Pic*);
- other endogenous sources of external origin (*Oesio*), which also include tangible and intangible assets provided to the enterprise free of charge, etc.

Thus, the amount of endogenous investment resources, the source of which is of external origin is:

$$Esio = Acsc + Sca + Sw + Pic + Oesio. \quad (2)$$

Management of attracting investment resources of enterprise at the expense of endogenous investment resources increases the level of economic security at the expense of self-financing of the enterprise. At the same

time, the maximum financial stability of the enterprise is provided. However, the lack of investment resources of endogenous origin leads to limited opportunities for enterprise development, reduced use of financial opportunities to increase profits and can lead to a loss of its competitiveness in the market. Own investment resources often can not fully meet the needs of the enterprise in investment resources, which encourages the attraction of investment resources from exogenous sources.

Management of investment resources in the enterprise makes it possible to justify the need and possibility of attracting investment resources from exogenous sources of their origin for the enterprise, which have a strong impact on the quality characteristics of enterprise capital through their properties. Like endogenous investment resources, exogenous ones have their advantages and disadvantages (see Fig. 2).

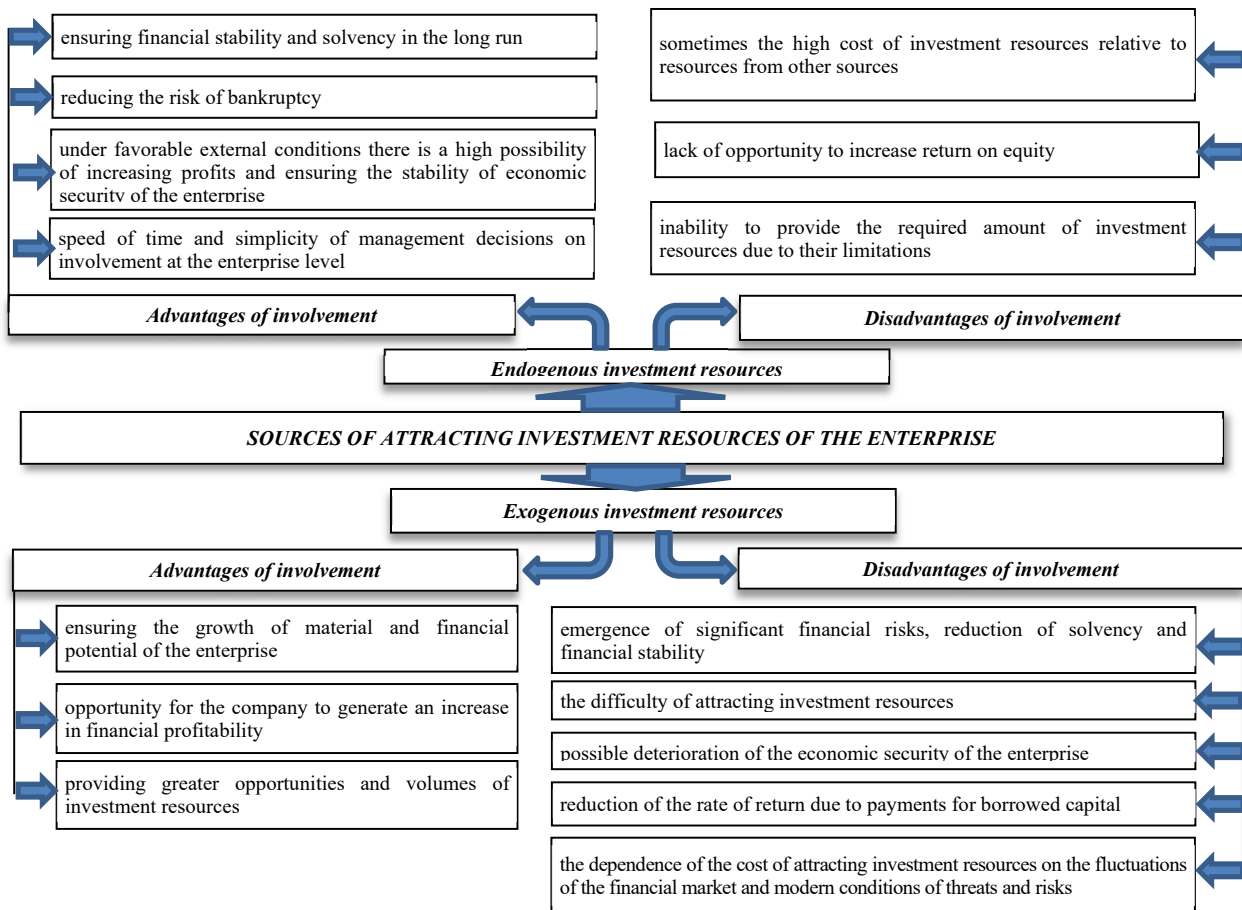


Fig. 2 Management of attracting investment resources of the enterprise from endogenous sources of origin.

Source: developed by the authors

The advantages of attracting exogenous investment resources for the company include:

- ensuring the growth of material and financial potential of economic activity of the enterprise with the expansion of its assets;
- an opportunity for the company to generate an increase in financial profitability;
- providing greater opportunities and volumes of investment resources, etc.

If we talk about the negative aspects of attracting exogenous investment resources, they should include:

- the emergence of significant financial risks, ie increased risks of reducing the solvency of the enterprise and reducing financial stability;
- the difficulty of attracting investment resources from exogenous sources;
- possible deterioration of the economic security of the enterprise;
- reduction of the rate of return due to payments for borrowed capital, which can last quite a long time;
- the dependence of the cost of attracting investment resources from exogenous sources on the fluctuations of the financial market and modern conditions of threats and risks.

Thus, it can be noted that investment resources attracted from exogenous sources on the one hand lead to increased financial potential and financial profitability of the enterprise through the use of various sources of investment resources, and on the other hand can cause bankruptcy, significant financial risks and deterioration economic security of the enterprise.

If we consider the management of investment resources in the enterprise to the exogenous sources of investment resources ( $I_r$ ), we can include involved ( $I_e$ ), borrowed ( $Be$ ) investment resources, as well as budget allocations ( $Ae$ ). In the form of a formula it is appropriate to present as follows (see Fig. 3):

$$I_r = I_e + Be + Ae, \quad (3)$$

In turn, exogenous attracted investment resources can be represented as the following amount of investment from this source:

$$I_e = I + S + V + L + Se + F, \quad (4)$$

where  $I$  – funds from the sale of investment securities by the enterprise;

$S$  – share and other contributions of individuals and legal entities;

$V$  – venture capital;

$L$  – financial leasing;

$Se$  – seleng, which provides for the paid transfer of rights of use and disposal of property of the enterprise;

$F$  – factoring operations - combined with working capital lending to the client.

Borrowed investment resources also belong to exogenous sources of their origin, which can be represented as the following amount:

$$Be = Lb + MI + Ic + Bl, \quad (5)$$

where  $Lb$  – short-term and long-term bank loans that can be represented by bank loan investment resources in the form of: blank, overdraft, seasonal, investment flows on the credit line, as well as in the form of revolving, oncol, Lombard, mortgage, rollover, consortium credit;

$MI$  – mortgage lending secured by real estate of the enterprise or their founders;

$Ic$  – investments of credit unions and other non-banking institutions;

$Bl$  – bond loans, etc.

Current trends in the formation of a circular economy and increase the efficiency of the economic security of the enterprise are increasingly actualizing another source of exogenous investment resources, namely budget allocations. Their formation can be represented as:

$$Ae = Fsb + Flb, \quad (6)$$

where  $Fsb$  – state budget funds;

$Flb$  – local budgets funds.

Management of investment resources in the enterprise makes it possible to justify the choice of sources of investment resources and in accordance with the stages of management analysis, which is presented in Fig. 1 and fig. 3 to monitor the relevance of attracting investment resources to ensure their economic security in a circular economy.

Budget allocations are important in the management of investment resources. We are not talking about state or municipal enterprises, namely other types of enterprise ownership. This is due to the fact that the mechanism of attracting investment resources through budget allocations in the form of such models as:

- public procurement or deferred public procurement - where financing is provided through the distribution of budget funds at different levels, both state and local, as well as through debt financing and / or loans;

- concession, which provides for the transfer of major commercial risks to the concessionaire, which allows more efficient implementation of investment projects in accordance with the deadlines;

- life cycle contract, under which the risk of demand is retained by the public partner, and the private partner implements all stages of the project life cycle, including operation and maintenance of the created object in accordance with the investment project.

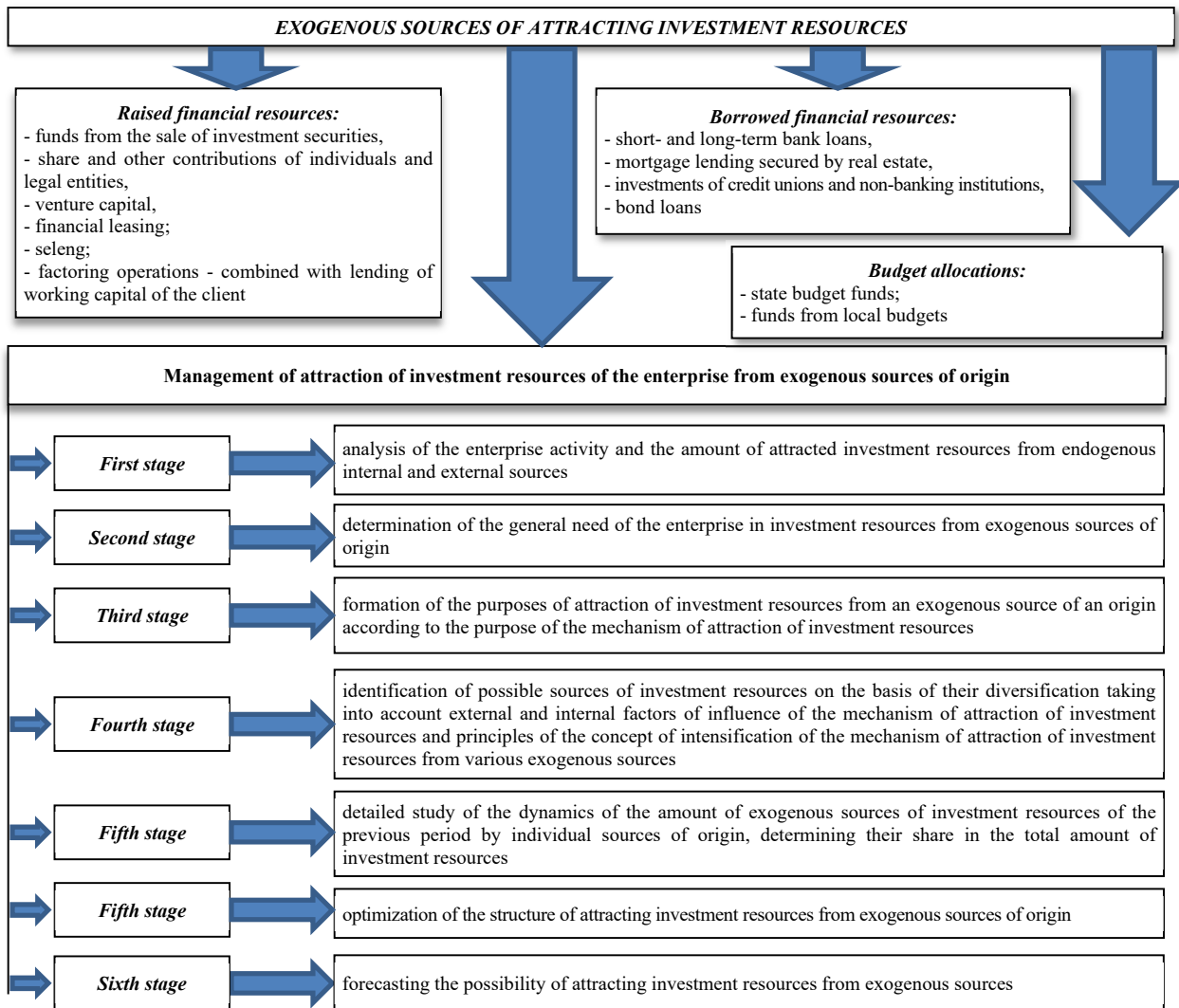


Fig. 3 Management of attracting investment resources of the enterprise from endogenous sources of origin.

Source: developed by the authors

#### 4. Conclusions

The scientific novelty of the study is to substantiate the principles of managing the attraction of investment resources in the enterprise to ensure their economic security in a circular economy, which is to develop step-by-step procedures for attracting investment resources from endogenous and exogenous sources. Such reasonable actions to attract investment resources will help increase the economic security of enterprises, ensure competitiveness and spread the principles of the circular economy.

The combination of endogenous and exogenous sources of investment resources will contribute to stable economic development, which, in turn, makes certain

demands on the qualitative and quantitative characteristics of investments attracted from different sources.

Further research in the field of attracting investment resources requires questions to assess their effectiveness in today's economic development, accompanied by turbulent global change and macroeconomic instability.

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