
Actual Issues of Reproduction of Fixed Assets of Domestic Enterprises

Volodymyr Kraievskyi

Doctor of Economics, Full Professor,
Dean of the Faculty of Tax Affairs, Accounting and Audit,
State Tax University, Ukraine
E-mail: kraevskyvm@ukr.net
ORCID: <https://orcid.org/0000-0003-3513-3666>

DOI: <https://doi.org/10.32782/2707-8019/2024-2-3>

Abstract. *The article touches upon topical issues of reproduction of fixed assets of domestic enterprises in terms of their accounting, audit and strategic aspects of management. The study emphasises the necessity of constant renewal of fixed assets to ensure competitiveness, increase of labour productivity and quality of products. The main purpose of the study is to identify the key problems of managing the reproduction of fixed assets and formulate ways to solve them. To achieve the research objective, the methods of analysis and synthesis, comparative analysis and empirical methods were used. The paper emphasises the importance of improving accounting and auditing, considers the concepts of physical and moral wear and tear, as well as depreciation of fixed assets. It is determined that improving the depreciation policy is an important factor in increasing the investment activity of business entities. It is substantiated that internal audit plays an important role in providing reliable information on the process of reproduction of fixed assets, which contributes to the effective management of enterprise resources. The author defines the tasks of internal audit, including verification of the correctness of recognition and assessment of fixed assets restoration costs, reliability of information on depreciation charges, depreciation and residual value of fixed assets, control over accounting of lease transactions and transactions with investment property. The publication also discusses the strategic aspects of fixed assets reproduction, emphasising the importance of an innovative approach to improving the competitiveness of enterprises. It is noted that the implementation of innovative reproduction requires an integrated approach, including the construction of a mechanism that ensures the orientation of the market and the macroeconomic model of management to innovative forms of reproduction of fixed capital. The article pays special attention to the problems of financing innovative projects and cooperative technological chains. The article concludes by emphasising the need to form a comprehensive mechanism at the macro level, focused on the priority reproduction of fixed asset systems using the latest technologies. The paper emphasises the importance of creating a unified system of innovation and investment activities of enterprises, taking into account the interests of all participants. It stresses the expediency of using both market and non-market incentives for the reproduction of fixed assets, which will facilitate the production of competitive products and ensure the sustainable development of enterprises in the market.*

Keywords: *fixed assets, reproduction of fixed assets, depreciation policy, accounting of fixed assets, audit of fixed assets.*

JEL Classification: *M41, Q14*

1 Introduction

With rapid technological advances and global competition, companies are forced to constantly upgrade their assets to remain competitive. Using outdated equipment can lead to lower productivity, higher costs and lower product quality. Economic instability and inflationary processes increase the cost of new fixed assets, requiring companies to carefully plan and optimise the cost of their acquisition and modernisation. Rational asset

management contributes to a more efficient use of company resources, which in turn can lead to increased profitability and a stronger financial position. Changes in the legal and regulatory environment also require companies to adapt to new requirements, making asset management even more important. All this underlines the need for effective management of the reproduction of fixed assets to ensure the sustainable development and success of the company in the market.

The purpose of the study is to identify the key problematic aspects of managing the reproduction of fixed assets of enterprises and organisations and to formulate ways to solve them. Achieving this goal is possible by solving the following tasks:

- To define the conceptual content and importance of reproduction of fixed assets of enterprises;
- to study the peculiarities of accounting and audit of reproduction of fixed assets of enterprises;
- to consider the strategic aspects of fixed assets reproduction in the context of digitalisation of enterprises.

The following methods were used to achieve the purpose of the study and solve the tasks set: analysis and synthesis (using these methods, the conceptual content and meaning of fixed assets reproduction were determined). Analysis helped to break down a complex topic into separate components, and synthesis combined these components into a holistic view of the reproduction process; comparative analysis (used to study the specifics of accounting and auditing for fixed assets reproduction). This allowed comparing different approaches and standards of accounting and auditing, as well as identifying their advantages and disadvantages; empirical methods (used to collect and analyse data on the practice of managing the reproduction of fixed assets at various enterprises).

2 Features of Accounting and Audit of Reproduction of Enterprises' Fixed Assets

Given the significant proportion of fixed assets in the fixed assets of enterprises and organisations, it can also be argued that they have a significant impact on financial performance, including financial results. This impact is due to the depreciation included in the cost of production, which depends on the value of the fixed assets and the depreciation method chosen, and therefore directly affects the company's operating profit, profit before tax and net profit. At the same time, the quantitative and qualitative composition of fixed assets directly affects the financial position of the company. For example, changes in fixed assets affect the liquidity of the company, excessive use of production capacity leads to a decrease in the turnover of own funds and, as a result, to the loss of financial independence. Therefore, an important condition for the successful functioning of business entities is the observance of the development of the theory and practice of fixed assets management in each company, which implies the improvement of its accounting and auditing. The reproduction of fixed assets is manifested in the improvement of their technological and sectoral structure,

production equipment and the increase in the share of their active elements.

There are simple reproduction and extended reproduction of fixed assets. Simple reproduction involves the creation of new fixed assets or the restoration of existing fixed assets to their previous quantity and quality in each subsequent cycle. The source of financing for the replacement of worn-out fixed assets is the amount of depreciation. During the extended reproduction of each subsequent cycle, fixed assets increase in quantity and quality. The source of financing for extended reproduction is the use of part of the surplus product created. The quality of existing fixed assets is reflected in their depreciation rate, and the dynamics of reproduction processes are reflected in the renewal and disposal rates. Comparing the renewal and disposal rates of fixed assets gives an idea of the nature of their reproduction. If the renewal rate is higher than the disposal rate, there is extensive reproduction of fixed assets. Their equality indicates simple reproduction, while a higher rate of disposal of fixed assets means that they are being reduced. Ukraine is characterised by an intensive process of accumulation of physically obsolete fixed assets, which negatively affects the efficiency of their use (Kolisnyk & Prykhodko, 2023).

In the current business environment of Ukraine, the question of the formation of the accounting policy of the enterprise is a matter of discussion. In this regard, the problem of efficient use of fixed assets is very relevant, the solution of which largely depends on the improvement of the company's depreciation policy. Since in the current business practice depreciation is one of the own sources of financing the reproduction of fixed assets, and in the context of the decrease in profitability of production activities and the decrease in the possibility of financing by loans it is almost the main source of reinvestment, the study of depreciation and its regulatory regulation is a guarantee of growth of investment activity of business entities. According to the National Accounting Regulation (Standard) 7 "Fixed Assets", depreciation is the systematic allocation of the depreciable value of non-current assets over their useful life (operation). A distinction is made between physical and moral depreciation of fixed assets.

Physical depreciation, or the gradual loss of an item's use value due to physical wear and tear, is a fundamental concept in the field of asset management. It refers to the decline in an item's technical and operational qualities over time, leading to a reduction in its real value. This, in turn, can result in the item becoming unusable in production without

repair. In other words, this signifies the depreciation of the individual fixed asset elements in a purely material sense. Moral deterioration, or technical and economic obsolescence, is the depreciation of fixed assets associated with scientific and technological progress. This results in an improvement of the technical and economic criteria of previous generations of machinery and equipment.

Depreciation and amortisation are related and interdependent concepts. While depreciation indicates the degree of change in the value of fixed assets from the beginning of their use in the production process, the loss of part of the value over time and production factors, amortisation characterises how much of the depreciation is transferred to the manufactured products, the cost is taken into account in the expenses of the reporting period, i.e., what is the share of depreciation, wear and tear of a fixed asset for a given period (Dovhaliuk, 2010). Thus, the concept of depreciation is much broader than that of amortisation, as it takes into account the cost of a fixed asset transferred to products over the entire period of use, while amortisation is only for a specific reporting period and is included in production and operating costs. At the same time, depreciation is the cause of amortisation.

In a market economy, one of the main issues is to increase the efficiency of the use of a business entity's fixed assets. The financial condition of the company and its competitiveness in the market depend on the extent to which this issue is resolved. In order to increase the efficiency of the use of the company's material and technical base, their reproduction is of primary importance.

The essence of reproduction of fixed capital is manifested in its constant movement, which necessitates the study of the mechanism of reproduction of fixed capital. The turnover of fixed assets and their reproduction are identical concepts, the economic content of which is the turnover of fixed assets.

The reproduction of fixed assets is a process of continuous renewal and improvement, which is why it is often said that such qualitative changes are cyclical. In other words, reproduction is the continuous renewal of the process of production of goods, services and spiritual goods, on the basis of which all elements of the economic system are reproduced – productive forces, technical and economic, production relations (or economic property relations) and the economic mechanism.

In addition, it is important to remember that in the normal course of operating an item of property, plant and equipment, there is no need to revise the future economic benefits that will be generated by its use, as this is done at the time of its acquisition

(Halahan & Kruhliak, 2021). If technical and economic parameters change, this is the first reason to determine the changes and expected economic benefits. Especially in conditions of limited cash resources, it is necessary to find sources of financing for investment activities, including repair and improvement works, and such a source can be depreciation charges, which are formed and form a restoration fund.

At the stage of economic development, domestic enterprises are trying to constantly improve the efficiency of their fixed assets. However, the main problem that has not yet been fully solved is the issue of correct and adequate accounting of transactions with fixed assets of enterprises, especially transactions with financial leasing and operating leasing. With the development of market relations, the accounting of transactions with fixed assets has undergone fundamental changes, which have affected internal audit procedures. It is an integral part of the company's management system aimed at preventing employee fraud, ensuring the security of assets, providing internal advice, etc.

Internal audit, in accordance with the Professional Standards for Internal Auditing, is designed to contribute to the achievement of the organisation's objectives by applying a systematic approach to assessing and improving the effectiveness of risk management, control and corporate governance systems. Internal audit focuses on reviewing, analysing and monitoring the information system, including the accounting system and related controls, verifying financial and operational information, and investigating the efficiency and effectiveness of operations.

The purpose of internal audit is to improve the organisation and management of production, identify and mobilise reserves for its growth.

The purpose of the internal audit of fixed assets reproduction is to provide reliable information on the process of fixed assets reproduction in the accounting and tax accounting and reporting of the enterprise (Kravchenko & Selezniova, 2022).

Therefore, in accordance with the tasks of internal audit, the reproduction of fixed assets, in the author's opinion, should include the following:

- Verification of the correctness of recognition and objectivity of assessment of fixed assets restoration costs;
- establishment of the reliability of information on the reproduction of fixed assets in the accounts;
- determination of the correctness of the calculation of depreciation charges in accounting and tax accounting;
- verification of the accuracy of information on the creation and use of the restoration fund;

- reviewing the composition and amount of expenditures for improvement and repair of fixed assets capitalised in the reporting period, as well as expenditures for current repair and maintenance of fixed assets to prevent errors and fraud;

- verification of the correctness of the amount of accrued depreciation of capitalised costs for improvements and repairs of fixed assets;

- reviewing the timeliness of revising the useful life (operation) of fixed assets in case of changes in the expected economic benefits from their use;

- determination of depreciation and residual value of fixed assets;

- control over the correctness of accounting and reporting of lease transactions and transactions with investment property in terms of the formation and use of the restoration fund;

- verification of compliance with the requirements of the Tax Code of Ukraine regarding the correctness of deductibility of various expenses related to the improvement of fixed assets;

- verification of the correctness of accounting for precious metals in fixed assets;

- verification of the correctness of the information on the recognition of expenses for the restoration of fixed assets in the financial statements.

Thus, the internal audit of fixed assets reproduction is an integral element of the internal control system of any business entity, which provides the necessary information to the management of the enterprise. Practical application of the developed methodology of internal audit of fixed assets reproduction makes it possible to increase the efficiency of internal control over the completeness, reliability and reality of data on the enterprise's expenses.

3 Strategic Aspects of Reproduction of Enterprises' Fixed Assets

At the present stage, most domestic industrial enterprises give priority to the renewal of machine complexes on an innovative basis. This is due to the presence of a significant number of outdated technologies and equipment at many industrial enterprises, as well as the low competitiveness of their products, especially in the global market. The current values of the renewal and disposal rates also indicate that, despite the need for a radical modernisation of the domestic industrial potential, the rate of renewal of fixed assets remains extremely insufficient.

The need to use the innovative form of fixed asset reproduction is determined by the fact that innovations allow to move from a catching-up type of development to a leading one. By investing in the development of a promising new product

and building the technological and production potential for it, a company can leapfrog several stages of development and become a leader among globally competitive companies. This requires the reproduction of machine systems on an innovative basis.

However, the implementation of these methods and forms of renewal requires a comprehensive approach. It is necessary to create a mechanism that ensures that all market characteristics and the macroeconomic model of management are oriented towards the implementation of such reproduction of fixed assets. At present, such a comprehensive system has not been created. There are various negative manifestations of individual elements of the economic mechanism that impede these methods and forms of renewal of fixed assets in manufacturing. It should be taken into account that enterprises are very diverse. The reasons for this are the characteristics of the technological process (discrete, continuous), product characteristics and market demand, forms of ownership and integration into large corporate structures. This is because the degree of integration of firms affects the target characteristics of upgrading and the ways in which decisions are made about its implementation, resource capabilities and market demand for the results. From this point of view, it is necessary to distinguish between enterprises that are part of large enterprises producing globally competitive raw materials and semi-finished products (oil refineries, metallurgical enterprises, etc.), enterprises that are not related to the primary processing of raw materials but are of great importance for the country's economy as a whole (large machine-building enterprises, enterprises of the military-industrial complex, etc.), and other enterprises of various branches and forms of ownership.

When describing the problems of fixed assets renewal, it should also be borne in mind that even within these groups of enterprises they are not equal in terms of their competitive status, financial condition, market position, and ability to influence decision-making in the management company. Therefore, when talking about the problems of reproduction, the average trends and phenomena in this group are assessed.

To further develop measures to address these issues, it is necessary to systematise all problems related to the reproduction of fixed assets at enterprises. It seems prudent to group these issues according to the following criteria: the potential incentives for renewal and the decision-making processes involved; market indicators that influence renewal; the resource capabilities available; the interconnection with research and

development (R&D) and quality improvement issues; the embeddedness of renewal in the strategic development of the organisation; and the interconnection with other participants in the innovation and investment process.

Regarding the peculiarities of reproduction according to the first feature – incentives and methods of decision-making – it can be noted that non-market incentives for renewal prevail for enterprises that are part of integrated structures of both raw materials and non-resource orientation. State organisations stimulate the renewal of fixed assets at such enterprises, not directly, but through indirect methods and decisions. For example, for oil refineries, this is the adoption of new environmental standards for fuels, which forces companies to modernise their equipment to produce Euro-4 and Euro-5 fuels (Bondar, 2013). For machine-building enterprises of the defence industry, it is the requirement to fulfil government orders in a timely and high-quality manner that forces them to modernise their equipment to achieve the specified parameters. It should be noted that, unlike purely market-oriented enterprises, where the decision to modernise is made by top management and owners, the pace and scale of fixed asset replacement at enterprises in the first two groups is much higher.

The characteristics related to the interaction of fixed assets reproduction processes with the innovation component are worthy of attention, namely: resource capabilities of the technologies used, interconnection with R&D services and other participants of the innovation and investment chain. Given the technological backwardness of most domestic industrial enterprises, all of them must make decisions on the choice of technology in the reproduction of fixed assets. The first group of enterprises is less constrained in financial resources due to their affiliation with large vertically integrated companies. Additionally, they must consider the dearth of domestic technologies that meet global standards. In this regard, the utilisation of foreign technologies is a key factor, which also determines other characteristics. These include a dependence on technology exporters in the choice of equipment (Vovk & Dolhopolova, 2019).

Enterprises belonging to the second group are also less financially constrained with regard to the replacement of fixed assets than free market-oriented enterprises. However, this is only the case for the production activities related to government orders. The remainder of the production apparatus exhibits similar renewal characteristics to those observed in the enterprises of the third group. The distinction between the enterprises of the

second group lies in their engagement with R&D services and other stakeholders in the innovation and investment process, particularly in the context of government orders.

Enterprises in the third group are at a disadvantage in terms of innovative justification for the reproduction of fixed assets. As a rule, due to their unstable financial situation, they have underdeveloped in-house research and development services and insufficient interaction with participants in the innovation and investment process.

It is notable that almost all types of enterprise, with the exception of the second group, exhibit a particular characteristic with regard to the execution of government orders. This is evidenced by a lack of integration between current tasks and the strategic prospects of enterprise development, particularly in the context of renewal projects. The focus on products already manufactured by foreign competitors, imported technologies and equipment during the renewal process serves to perpetuate the technological backwardness of domestic enterprises, allowing them to address the inherent challenges associated with catch-up type development. It is not possible to enhance the efficiency of the reproduction of fixed assets without the introduction of pioneering innovative developments and the appropriate provision of technologies and equipment.

4 Conclusions

To overcome the technical and technological backwardness of many domestic industrial enterprises, it is necessary to create a comprehensive mechanism at the macro level to ensure the reproduction of fixed assets. It should be focused on the priority reproduction of fixed asset systems at enterprises using the latest technologies to produce competitive products on an innovative basis. This mechanism should take into account the existing market characteristics, resource capabilities of different types of enterprises, the existing structure of enterprises and existing incentives for reproduction. It is necessary to create a unified system of innovation and investment activities of enterprises, taking into account the interests of its individual participants. For certain types of enterprises, it is advisable to use both market and non-market incentives for reproduction (e.g., for military-industrial enterprises), taking into account the prospective development of innovative products demanded by the market. The renewal of fixed assets should be carried out within the framework of cooperative technological chains, including through the formation and implementation of large investment projects.

References

Bondar O. V. (2013) Problemy vyznannia osnovnykh zasobiv u bukhhalterskomu i podatkovomu obliku [Problems of recognition of fixed assets in accounting and tax accounting]. *Bukhhalterskyi oblik i audit – Accounting and auditing*, vol. 4, pp. 23–27. (in Ukrainian)

Dovhaliuk N. V. (2010) Metodolohiia vyznachennia ta metodyka analizu ekonomichnoi efektyvnosti vykorystannia ta vidtvorennia osnovnykh zasobiv ahrarnoho sektoru ekonomiky [Methodology of determination and method of analysis of economic efficiency of use and reproduction of basic assets of the agrarian sector of the economy]. *Ekonomika. Upravlinnia. Innovatsii. Serii: Ekonomichni nauky – Economy. Management. Innovations. Series: Economic Sciences*, vol. 2, pp. 45–61. (in Ukrainian)

Halahan T. I. & Kruhliak H. S. (2021) Metodychni pidkhody do vyznachennia sutnosti vidtvorennia osnovnykh zasobiv pidpriemstva [Methodical approaches to determining the essence of reproduction of the company's fixed assets]. *Efektivna ekonomika – Efficient economy*, vol. 1. Available at: <http://www.economy.nayka.com.ua/?op=1&z=8642> (accessed August 4, 2024). (in Ukrainian)

Kolisnyk O. P. & Prykhodko K. K. (2023) Oblik i kontrol osnovnykh zasobiv v umovakh voiennoho stanu [Accounting and control of fixed assets under martial law]. *Problemy suchasnykh transformatsii. Serii: ekonomika ta upravlinnia – Problems of modern transformations. Series: Economics and Management*, vol. 7. Available at: <https://reicst.com.ua/pmt/article/view/2023-7-09-03> (accessed August 4, 2024). (in Ukrainian)

Kraievskiy V. M., Skoryk M. O., Bohdan S. V., Hmyrya V. P. (2020) Coherence of accounting systems: transcendence of content and immunity of purpose. *Bulletin of the National Academy of Sciences of the Republic of Kazakhstan*, vol. 2, no. 384, pp. 176–184.

Kravchenko O. V. & Selezniova O.V. (2022) Stan rozvytku obliku ta kontroliu osnovnykh zasobiv na vitchyznianskykh pidpriemstvakh ta napriamy yikh udoskonalennia [State of development of accounting and control of fixed assets at domestic enterprises and directions for their improvement]. *Visnyk SumDU. Serii «Ekonomika» – ulletin of Sumy State University. "Economy" series*, vol 2, pp. 9–16. (in Ukrainian)

National regulation (standard) of accounting 7 "Fixed assets". Available at: <https://zakon.rada.gov.ua/laws/show/z0288-00#Text> (accessed August 4, 2024). (in Ukrainian)

Vovk O. M. & Dolhopolova Yu. A. (2019) Upravlinnia efektyvnistiu innovatsiinoho onovlennia osnovnykh zasobiv aviapidpriemstv [Effectiveness management of innovative renewal of fixed assets of aviation companies]. *Pryazovskiy ekonomichnyi visnyk – Pryazovsky Economic Bulletin*. vol. 6(17), pp. 106–110. (in Ukrainian)