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PROBLEMS OF ACCOUNTING AND VALUATION OF FIXED ASSETS DURING MARTIAL LAW IN UKRAINE

During martial law in Ukraine, accounting for fixed assets faces significant challenges due to the ongoing war. Key issues include the destruction or damage of assets, making it difficult to assess their value and determine impairment losses. Businesses often face disruptions in operations, leading to challenges in tracking asset usage, depreciation, and maintenance. The conflict complicates asset verification, as physical inspections may be impossible due to restricted access or destroyed records. Impairment of assets is a major concern, as companies must evaluate the reduced value or functionality of assets, often without access to reliable data. Additionally, relocation of assets to safer regions complicates tracking and valuation, while regulatory uncertainty around tax and depreciation rules adds further complexity. Businesses also face inflation and currency devaluation, making asset valuation even more challenging. Legal issues, such as asset seizure or expropriation, present further complications, particularly in determining ownership and potential compensation. The lack of clear guidelines on accounting for war-damaged assets, combined with the displacement of accounting personnel, exacerbates these problems. Overall, businesses must adapt their accounting practices to navigate the unpredictable environment while maintaining compliance and transparency.

Keywords: accounting of fixed assets, valuation of fixed assets, martial law, damage of assets, destruction of assets, problems of accounting and valuation of fixed assets.

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ПРОБЛЕМИ ОБЛІКУ ТА ОЦІНЮВАННЯ ОСНОВНИХ ЗАСОБІВ ПІД ЧАС ДІЇ ВОЄННОГО СТАНУ В УКРАЇНІ

Під час воєнного стану в Україні облік основних засобів стикається із значними проблемами через триваючий конфлікт. Основні проблеми включають знищення або пошкодження активів, що ускладнює оцінку їх вартості та визначення збитків від знецінення. Компанії часто стикаються зі збоями в роботі, що призводить до проблем із відстеженням використання активів, амортизації та технічного обслуговування. Конфлікт ускладнює перевірку активів, оскільки фізичні перевірки можуть бути неможливими через обмежений доступ або знищені записи. Знецінення активів викликає серйозне занепокоєння, оскільки компанії повинні оцінити зниження вартості або функціональності активів, часто не маючи доступу до надійних даних. Крім того, переміщення активів у безпечніші регіони ускладнює відстеження та оцінку, а нормативна невизначеність щодо правил оподаткування та амортизації додає ще більшої складності. Підприємства також стикаються з інфляцією та девальвацією валюти, що робить оцінку активів ще більш складною. Юридичні проблеми, такі як конфіскація активів або експропріація, створюють додаткові ускладнення, зокрема у визначенні права власності та потенційної компенсації. Відсутність чітких інструкцій щодо обліку майна, пошкодженого війною, у поєднанні з переміщенням бухгалтерського персоналу загострює ці проблеми. Загалом компанії повинні адаптувати свою бухгалтерську практику, щоб орієнтуватися в непередбачуваному середовищі, зберігаючи відповідність і прозорість.

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Ключові слова: облік основних засобів, оцінка основних засобів, воєнний стан, пошкодження активів, знищення активів, проблеми обліку та оцінки основних засобів.

Problem statement. The russian invasion and the full-scale war in Ukraine created enormous challenges for both citizens and enterprises of most industries throughout the territory of our country, especially in the temporarily partially occupied regions and those that share a common border with the aggressor country. Such challenges are faced not only by all branches of the economy, but also by certain types of activity, such as accounting. Martial law and the conduct of hostilities directly on the territory of Ukrainian regions create a task for accountants, the solution of which often requires the acquisition of new knowledge and the application of modern approaches. And to the greatest extent this concerns the accounting of fixed assets, because it is this type of assets that suffers the most from the war. Fixed assets can be damaged and destroyed, stolen and captured by the enemy, requisitioned, their fair value can change dramatically. Transactions related to this, which have never occurred before in enterprises, must be properly reflected in the accounting. This article is devoted to the identification of new problems of accounting and valuation of fixed assets that arose during the martial law in Ukraine. The next article in the series will be devoted to proposals for solving these problems.

Analysis of the latest publications. The problems of enterprise accounting in the war and post-war periods, in particular, the accounting of fixed assets, as the most vulnerable type of assets, have been studied by scientists and accountants at least since World War II. Particularly, the works of Hiram T. Scovill [1], Cornelis A. Van Bochove and Wim Van Sorge [2] may be noted. New challenges of accounting for fixed assets are at the center of the attention of both domestic and foreign scientists and professional accountants from the first days of the full-scale russian invasion. V. Zhuk, Yu. Bezduzhna, Ye. Popko [3], M.O. Sulima, D.R. Smirnov [4], L. Kruta [5], O. P. Kolisnyk, K. K. Prykhodko [6], M. Kuzub, O. Romashko, T. Ihnatenko, O. Moshkovska, O. Androsenko [7], V. Specht [8] and authors of this article [9] investigated these questions in their works.

However, most authors focus on the specific challenges of wartime accounting and the analysis of the legislation that helps to solve them, while new global problems, including those that most European countries have not faced before or at least since World War II, are sometimes overlooked by them.

The article aims to determine the main problems and challenges faced by accountants and other specialists when conducting accounting operations and evaluating fixed assets in Ukraine during martial law. Ways to solve these problems will be considered in the next article.

Presentation of the main research results. The accounting and valuation for fixed assets during martial law in Ukraine has been impacted by various challenges, both practical and regulatory, due to the ongoing war and its aftermath. These challenges affect businesses, government institutions, and other organizations operating within the country. Such problems caused by war may be divided into several categories.

The first and most obvious of such categories will be the damage, destruction or loss of fixed assets due to military actions, which raises various interconnected problems. Many businesses and public facilities have suffered damage or loss of fixed assets

like buildings, equipment, machinery, etc. This raises issues in accurately assessing the value of partially or completely destroyed assets. Determining the residual value or impairment loss for damaged or destroyed assets is difficult, especially when there are delays in assessing the extent of damage or when infrastructure for valuation is disrupted [8]. Companies may need to write down the value of fixed assets due to physical damage, loss of functionality, or obsolescence caused by war [1]. Estimating the impairment loss requires both physical inspection and financial assessments, which can be hindered by ongoing conflict. Conducting impairment tests for assets is complex when access to locations is restricted due to military activities, or when market information for asset valuation is not readily available, which is typical for the current situation in our country. Valuation of such fixed assets is also important in the context of possible compensation from the government of Ukraine, governments of other countries and international organizations, including at the expense of frozen and confiscated russian assets, as well as, in the future, from the future russian government through reparations [9]. Similar problems appear with the physical verification and inventory of fixed assets, which is a regular accounting procedure. It becomes problematic due to restricted access to certain areas, especially those under occupation or where active military operations are taking place. In many cases, accounting records, including those related to fixed assets, may be lost, destroyed, or inaccessible due to the displacement of personnel or the destruction of offices and storage facilities [2]. While some fixed assets may be insured, accessing compensation from insurers may be delayed or uncertain during martial law. This complicates accounting for expected compensation and impairments in the financial statements.

The second category is associated with the legal and regulatory uncertainty during the war and the lack of clear guidelines for war-damaged assets. Businesses and accountants may face uncertainty in how to treat war-damaged assets under the existing accounting standards, leading to inconsistent approaches across companies, which complicates financial reporting and comparisons. The potential introduction of government relief programs for damaged or lost fixed assets could further complicate accounting, particularly regarding the timing and recognition of potential compensations [5, 6]. If the government promises compensation for damaged or lost fixed assets, the exact mechanism and timeline for reimbursement may remain uncertain, complicating the accounting for future claims [10]. The government may introduce temporary tax relief or changes to accounting standards during martial law, leading to confusion regarding how fixed assets should be accounted for, particularly in terms of tax depreciation and reporting requirements. In this connection, accounting for the costs of rebuilding or repairing damaged fixed assets needs to be carefully tracked. This includes determining whether such costs should be capitalized or expensed, which may be complicated by unclear timelines for repair [4]. This accounting information may also later serve as the basis for assessment of the future compensations.

The third category of accounting problems is connected with depreciation issues. For example, some companies may need to accelerate the depreciation of assets due to their reduced useful life caused by the destruction of infrastructure or the abandonment of operations in conflict zones [7]. Depreciation schedules may need adjustment when there is uncertainty about the future use of fixed assets or whether they will return to full operational capacity after the end of martial law [3]. Also,

many businesses have had to suspend operations, making it difficult to track and account for the utilization, wear and tear, and maintenance of fixed assets. This disrupts the regular depreciation schedules and asset management practices. Fixed assets that are not in use during martial law may require adjustments in accounting, as the depreciation expense may no longer accurately reflect the asset's usage or economic value.

The next categories have smaller scopes of problems, but they are very important nevertheless.

The fourth category includes the problems of assets relocation. Companies and institutions that relocate their fixed assets to safer regions face challenges in maintaining accurate records of these transfers, ensuring assets are not lost in the process, and updating accounting records to reflect new locations. When assets are relocated or repurposed due to military conditions, the future economic benefit of those assets might change, requiring revaluation and adjustments in accounting books.

Asset seizure and "expropriation" may be considered as the fifth category of problems. Fixed assets may be seized or commandeered by military forces for war efforts. It is extremely rare on the territories controlled by the Ukrainian government, but is very typical for the Russian army. Or they may be directly "expropriated" or stolen, which is the same, in occupied territories. This introduces legal and accounting complexities in how to account for the loss or temporary suspension of asset ownership. In cases where businesses expect to recover fixed assets after the war, there may be challenges in deciding whether to fully write off the assets or keep them on the books with certain adjustments.

The sixth category of problems is associated with the foreign currency exchange and the impact of inflation. The rapid inflation and devaluation of hryvnia during the war can affect the valuation of imported fixed assets or those priced in foreign currencies, complicating the accounting for these assets. Ukraine has experienced substantial inflationary pressures. Even though there is no hyperinflation, companies may need to revalue their fixed assets regularly to reflect the changes in purchasing power, which complicates accounting processes.

The last, seventh category of accounting problems is connected with the shortages of human resources and expertise. Many accounting professionals and asset managers may be displaced due to the war, leading to gaps in maintaining accurate and timely accounting records for fixed assets. External audits of fixed assets become challenging when auditors cannot physically inspect the assets or access reliable financial data.

As we can see, the accounting of fixed assets during martial law in Ukraine presents an unprecedented set of challenges due to the war's direct impact on businesses, infrastructure, and the overall economic environment. The disruption caused by military actions has created a volatile landscape for organizations, making it difficult to maintain accurate, timely, and compliant records of fixed assets. The loss, destruction, or impairment of assets is one of the most pressing issues, as many companies have suffered significant damage to their physical infrastructure, and assessing the extent of the damage or destruction is often delayed or impossible in war zones. This has led to complex decisions about how to value and depreciate these assets, especially when standard accounting practices may no longer be relevant or adequate under such conditions.

One major issue is the uncertainty around asset valuation. Determining the proper impairment or write-off for damaged or destroyed assets is a critical task but can be complicated by a lack of access to damaged sites or incomplete information. In such cases, companies are forced to make assumptions, which may lead to inconsistencies in financial reporting. Furthermore, idle fixed assets during the conflict pose additional challenges, as their depreciation schedules may no longer accurately reflect their economic value or useful life, especially when operations are suspended indefinitely.

Another significant challenge is compliance with regulatory and legal frameworks during the war. With potential changes in tax laws, asset valuation rules, and the imposition of emergency measures, companies must navigate a complex and evolving regulatory landscape. These changes might include new government policies on tax relief, depreciation schedules, or compensation for war-damaged assets. However, without clear and timely guidelines from regulators, businesses face difficulties in applying consistent accounting treatments, leading to possible variations in how companies report asset impairments, losses, or compensation claims.

The physical verification and inventory of fixed assets, a crucial part of any robust accounting process, has also been compromised due to restricted access to war-torn or occupied regions. Asset managers and accountants may not be able to access or inspect company premises, which complicates regular inventory procedures and the auditing process. Missing or incomplete records due to displacement or destruction of offices further exacerbate this issue, as organizations struggle to maintain continuity in their asset management practices.

The shifting economic environment in Ukraine, marked by inflation and currency devaluation, adds another layer of complexity to the accounting for fixed assets. Fluctuating exchange rates can severely distort the true value of fixed assets, especially those acquired from abroad or priced in foreign currencies. Regular revaluation may be necessary to adjust for these changes, but such adjustments require both technical expertise and access to reliable data, which may not be readily available in war-affected areas.

Relocation of fixed assets to safer regions is another practical challenge. Businesses attempting to move their assets away from war zones face difficulties in ensuring proper documentation, updating asset registers, and maintaining control over the assets during transit. The relocation of assets often leads to operational inefficiencies and complicates the tracking of their depreciation and future use, further complicating financial reporting.

In addition to the practical difficulties of managing and accounting for assets, businesses face the possibility of asset seizure, expropriation, or confiscation by military forces or occupying “authorities”. This creates both legal and accounting challenges, as it remains unclear whether such assets should be written off completely or if companies should maintain a legal claim for their recovery after the conflict. Such uncertainties introduce significant complications in financial statements, particularly in terms of asset valuation, ownership rights, and potential compensation claims.

The need for human resources, particularly skilled accounting and auditing professionals, presents yet another challenge. The displacement of personnel, loss of accounting expertise, and the disruption of regular business processes create gaps in

the management and oversight of fixed assets. With fewer staff on hand and access to systems disrupted, maintaining high-quality, transparent accounting practices becomes increasingly difficult.

Despite the wide range of difficulties, businesses must strive to maintain transparency and accuracy in their financial reporting, especially in relation to fixed assets. Establishing robust internal controls, improving communication with external auditors, and adapting to evolving government regulations will be crucial for Ukrainian enterprises to navigate this challenging environment. However, achieving these goals is difficult in practice due to the ongoing nature of the war, the lack of clear guidelines for war-damaged assets, and the uncertainties surrounding government compensation and relief programs.

In the longer term, domestic businesses will need to develop more resilient accounting systems that can better handle such crises. This may involve adopting more flexible accounting standards, investing in digital solutions that allow for remote access and management of assets, and enhancing collaboration with insurers and government bodies to facilitate compensation for lost or damaged assets. Additionally, the government and regulatory authorities need to provide clearer guidelines and support mechanisms, including tax relief, accelerated depreciation, and transparent processes for claiming compensation, to help businesses cope with the extraordinary challenges they face. The next article will be devoted to these possible solutions to the analyzed problems.

Conclusion. Accounting for fixed assets during martial law in Ukraine is an extraordinarily complex task, requiring businesses to adapt, often without clear guidance, to a rapidly changing environment characterized by physical destruction, regulatory uncertainty, and economic volatility. The issues of asset impairment, valuation, relocation, and compliance create profound difficulties for financial reporting and decision-making. As companies navigate this landscape, it will be essential to balance short-term survival strategies with long-term planning for recovery and resilience. By addressing these challenges strategically, businesses can better manage their fixed assets, mitigate financial risks, and position themselves for eventual recovery in the post-war period.

1. Hiram T. Scovill. Wartime Accounting Problems. *The Accounting Review*. Published By: American Accounting Association. Vol. 18, No. 3 (Jul., 1943), pp. 209-218 (10 pages) <https://www.jstor.org/stable/240764>

2. Cornelis A. Van Bochove, Wim Van Sorge. Constant wealth national income: accounting for war damage with an application to the Netherlands, 1940-45. *Review of Income and Wealth Series* 35, Number 2, June 1989 <https://www.roiw.org/1989/187.pdf>

3. Zhuk, V., Bezdushna, Yu., Popko, Ye. (2022). Depreciation of Enterprise Assets in Wartime. *Oblmk m finansu*, 1(95), 5-12. [https://doi.org/10.33146/2307-9878-2022-1\(95\)-5-1](https://doi.org/10.33146/2307-9878-2022-1(95)-5-1)

4. Сулима, М.О., Смірнов, Д.Р (2023) Облік основних засобів підприємства в умовах воєнного стану. *Інфраструктура ринку* (70). pp. 188-193. ISSN 2519-2868 http://market-infr.od.ua/journals/2023/70_2023/35.pdf

5. Крута Л. Облік основних засобів: що приніс 2023 рік?. *ibuhgalter.net* Сучасний бухгалтерський портал. URL: <https://ibuhgalter.net/material/1448/28007>

6. Колісник, О. П., & Приходько, К. К. (2023). Облік і контроль основних засобів в умовах воєнного стану. *Проблеми сучасних трансформацій. Серія: економіка та управління*, (7). <https://doi.org/10.54929/2786-5738-2023-7-09-03>

7. Kuzub, M., Romashko, O., Ihnatenko, T., Moshkovska, O., & Androsenko, O. (2023). Non-current asset restoration costs upon cancellation of martial law in Ukraine. *Social & Legal Studios*, 6(4), 114-122. <https://doi.org/10.32518/sals4.2023.114>
8. Specht V. War and conflict – Have non-financial assets become impaired? KPMG. URL: <https://kpmg.com/xx/en/our-insights/ifrg/2024/frut-assets-1a.html>
9. Mykola Gavrys. Problems of inventory, assessment and compensation of losses caused by the russian aggression in Ukraine. Features and trends of socio-economic development in global and local dimensions: International scientific conference (October 21-22, 2022. Leipzig, Germany). Riga, Latvia: “Baltija Publishing”, 2022. 196 pages. P. 127-131. <https://doi.org/10.30525/978-9934-26-244-9-30>
10. War in Ukraine – what European accountants need to know - Accountancy Europe. Accountancy Europe. URL: <https://accountancyeurope.eu/publications/war-in-ukraine-what-european-accountants-need-to-know/>

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1. Hiram T. Scovill. Wartime Accounting Problems. *The Accounting Review*. Published By: American Accounting Association. Vol. 18, No. 3 (Jul., 1943), pp. 209-218 (10 pages) <https://www.jstor.org/stable/240764>
 2. Cornelis A. Van Bochove, Wim Van Sorge. Constant wealth national income: accounting for war damage with an application to the Netherlands, 1940-45. *Review of Income and Wealth Series* 35, Number 2, June 1989 <https://www.roi.w.org/1989/187.pdf>
 3. Zhuk, V., Bezdushna, Yu., Popko, Ye. (2022). Depreciation of Enterprise Assets in Wartime. *Oblmk m fmnansi*, 1(95), 5-12. [https://doi.org/10.33146/2307-9878-2022-1\(95\)-5-1](https://doi.org/10.33146/2307-9878-2022-1(95)-5-1)
 4. Sulyma, M.O., Smirnov, D.R (2023) *Oblik osnovnykh zasobiv pidpriemstva v umovakh voien-noho stanu. Infrastruktura rynku* (70). pp. 188-193. ISSN 2519-2868 http://market-infr.od.ua/journals/2023/70_2023/35.pdf
 5. Kruta L. *Oblik osnovnykh zasobiv: shcho prynis 2023 rik?. ibuhgalter.net* Suchasnyi bukhhal-terskyi portal. URL: <https://ibuhgalter.net/material/1448/28007>
 6. Kolisnyk, O. P., & Prykhodko, K. K. (2023). *Oblik i kontrol osnovnykh zasobiv v umovakh voi-ennoho stanu. Problemy suchasnykh transformatsii. Serii: ekonomika ta upravlinnia*, (7). <https://doi.org/10.54929/2786-5738-2023-7-09-03>
 7. Kuzub, M., Romashko, O., Ihnatenko, T., Moshkovska, O., & Androsenko, O. (2023). Non-current asset restoration costs upon cancellation of martial law in Ukraine. *Social & Legal Studios*, 6(4), 114-122. <https://doi.org/10.32518/sals4.2023.114>
 8. Specht V. War and conflict – Have non-financial assets become impaired? KPMG. URL: <https://kpmg.com/xx/en/our-insights/ifrg/2024/frut-assets-1a.html>
 9. Mykola Gavrys. Problems of inventory, assessment and compensation of losses caused by the russian aggression in Ukraine. Features and trends of socio-economic development in global and local dimensions: International scientific conference (October 21-22, 2022. Leipzig, Germany). Riga, Latvia: “Baltija Publishing”, 2022. 196 pages. P. 127-131. <https://doi.org/10.30525/978-9934-26-244-9-30>
 10. War in Ukraine – what European accountants need to know - Accountancy Europe. Accountancy Europe. URL: <https://accountancyeurope.eu/publications/war-in-ukraine-what-european-accountants-need-to-know/>