

Determining the Market Value of Completely Destroyed Property Through the Russian Federation's Armed Aggression

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The aim of this study is to examine the methodology and practical aspects of assessing the market value of assets that have been completely destroyed, and to identify the legal and methodological principles that govern this process. To achieve this goal, we analyzed the relevant statutory instruments, employed system-structural and comparative methods, and applied the expert-valuation method. We address the pressing issue of valuing property that has been entirely erased by the Russian Federation's armed aggression against Ukraine. We demonstrate the necessity of developing and implementing effective damage-assessment mechanisms, since conventional valuation approaches are inapplicable under wartime conditions. Our review encompasses current Ukrainian legislation and international practices in this field. We analyze existing methodologies for determining the market value of destroyed real estate and movable property, including damaged land

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parcels. Special attention is paid to the legal and regulatory environment in Ukraine, which fails to meet the requirements arising from large-scale destruction during armed conflicts. We argue that merely compensating direct losses is insufficient; it is equally essential to ensure the full restoration of enterprise operations and infrastructure, and to account for potential economic losses arising from destroyed assets. In addition to evaluating current methodologies and legal rules, we offer specific recommendations for improving legislation and practical valuation procedures in an armed-conflict context.

Keywords: market value; destroyed property; asset valuation; legislative framework; valuation methodology; armed aggression; damage compensation; case law.

Research Problem Formulation

Determining the market value of property that has been completely destroyed poses one of the most critical challenges in law application, particularly during armed conflicts. The Russian Federation's aggression against Ukraine has inflicted widespread damage on private and commercial assets, generating complex legal, economic, and social issues. This research is motivated by the urgent need to establish a unified mechanism for accurately quantifying losses and delivering fair compensation to affected parties.

Article Purpose

The article aims to analyze current legislation and judicial practice, develop science-based proposals for improving the methodology for determining the market value of fully destroyed property, and formulate recommendations for enhancing the regulatory framework in this area.

Research Methods

To achieve the stated objective, a range of methods was applied: analysis of legal regulations (study of Ukrainian legislation and international property valuation standards); system and structural analysis (examination of organizational and legal structures ensuring the valuation of destroyed property); comparative method (comparing Ukrainian practice and international damage-assessing experience in wartime); forensic appraisal method (relying on the expertise of property valuation specialists to identify primary problems and propose solutions).

Analysis of Essential Researches and Publications

The issue of determining the market value of destroyed property due to armed conflict is actively investigated by both domestic and foreign scientific and forensic communities. However, many relevant field studies are either incomplete

or cover only certain aspects (for example, valuation methodologies or legal compensation mechanisms). Ukrainian researchers point to the imperfection of regulatory frameworks, the difficulty of documenting destruction, and the lack of a single approved methodology. For instance, M. Havrys and O. Havrys in their thesis: *The Issues in Damage Cost Estimation due to the Russian Armed Aggression in Ukraine* note that the key barrier is legal uncertainty in documenting the extent of damage ¹. V. Andrieieva and M. Hofman in the *Appraisal of Damages From Destruction of Property Consequences of Military Aggression of the Russia Federation in Ukraine* research paper focus on analyzing the impact of inflation on the value of assessed movable and real estate property, as well as on categorizing approaches to determining damage and losses inflicted on Ukraine by the Russian aggression ². Ukrainian scholars also cite examples of effective compensation approaches from foreign practice. O. Senatarova's textbook: *Human Rights and Armed Conflicts* examines the experience of the UN Compensation Commission and the European Court of Human Rights (hereinafter referred to as ECtHR), noting the importance of the presumption of proven loss in cases of armed aggression when victims lack access to evidence ³.

The legal basis for compensation for damage caused to natural persons and legal entities of private law as a result of the full-scale war of the Russian Federation against Ukraine by O. Havrylenko emphasizes that one of the tasks currently facing Ukraine is the development and implementation of effective mechanisms not only at the national level, but also through close cooperation with the entire civilized world—in other words, with the broader international community—to restore and protect the human rights and freedoms violated by Russia in its aggression against Ukraine ⁴. Thus, the analysis of sources indicates scholarly interest in the topic and confirms the need for comprehensive interdisciplinary research that combines legal, economic, and technical approaches.

Main Content Presentation

Valuing market value for completely destroyed property demands accounting for multiple factors: condition before destruction, market conditions at the time of destruction, and environmental context. Various methods should be also deployed: comparative, cost, and income.

Since Russia's full-scale invasion on February 24, 2022, Ukraine has experienced the mass destruction of property

- 1 Гаврись М., Гаврись О. Проблеми оцінки збитків від російської агресії в Україні. *Маркетингові стратегії, підприємництво і торгівля: сучасний стан, напрямки розвитку* : тези доп. V Міжнар. наук.-практ. інтернет-конф. (Київ, 18.04.2024). Київ, 2024. С. 40—43. URL: https://library.knuba.edu.ua/books/zbirniki/25/18_04_2024.pdf (date accessed: 21.04.2025).
- 2 Андреева В., Гофман М. Оцінка збитків від пошкодження майна внаслідок військової агресії російської федерації в Україні. *Вчені записки Університету "КРОК"*. 2024. № 1 (73). С. 20—22. DOI: 10.31732/2663-2209-2024-73-20-27 (date accessed: 21.04.2025).
- 3 Сенаторова О. В. Права людини і збройні конфлікти : навч. посіб. Київ, 2018. 208 с. URL: https://nlu.edu.ua/wp-content/uploads/2021/05/msc_6_copy.pdf (date accessed: 21.04.2025).
- 4 Гавриленко О. О. Правова основа відшкодування шкоди, завданої фізичним особам та юридичним особам приватного права внаслідок повномасштабної війни російської федерації проти України. *Науковий вісник Ужгородського національного університету. Серія: Право*. 2024. Т. 2. № 86. С. 51—58. DOI: 10.24144/2307-3322.2024.86.2.8 (date accessed: 21.04.2025).

belonging to both natural and legal persons. Determining the market value of completely destroyed property is an essential step in the process of filing compensation claims, both within the national jurisdiction and at the international level.

Market value equals the most probable price achievable in an arm's-length sale between informed, willing parties on the valuation date (on the open market) ⁵.

When determining the value of completely destroyed property, appraisers reconstruct that pre-loss value instead of examining the destroyed object ⁶.

The main valuation purpose is to determine the extent of losses/damage for subsequently:

- filing claims with Ukrainian courts;
- filing claims with international courts;
- recording losses in state registers (specifically via the Diia platform).

The appraiser must conduct a thorough market analysis, considering location, physical characteristics, and other pertinent attributes.

Determining the market value for destroyed property has certain distinct features:

- the need to apply the retrospective valuation date (immediately predating destruction) ⁷;
- the physical asset absence;
- analyzing secondary documentation: technical reports, photographs, video footage, contracts, cadastral records, etc. ⁸
- Complete property destruction is verified via:
 - inspection reports;
 - expert's opinions;
 - government or municipal decisions;
 - photo documentation;
 - video footage.

The procedure for valuing property that has been totally destroyed in an armed conflict can be considered a complex task, demanding close attention to the conflict's specific circumstances. Any retrospective valuation must rest on a thorough review of original documents and the market conditions prevailing at that time.

Ukraine's current legislation falls short, since it does not address the unique challenges of wartime valuation. Passing a specialized law on property valuation in armed-conflict settings—one that introduces streamlined procedures for documenting destruction and compensating losses—would be a crucial step forward.

5 Про оцінку майна, майнових прав і професійну оціночну діяльність в Україні : Закон України від 12.07.2001 р. № 2658-III (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/2658-14#Text> (date accessed: 21.04.2025).

6 Національний стандарт № 1 “Загальні засади оцінки майна і майнових прав” : затв. постанов. КМУ від 10.09.2003 р. № 1440 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/1440-2003-%D0%BF#Text> (date accessed: 21.04.2025).

7 Методика оцінки майна : затв. постанов. КМУ від 10.12.2003 р. № 1891 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/1891-2003-%D0%BF#Text> (date accessed: 21.04.2025).

8 Порядок подання інформаційного повідомлення про пошкоджене та знищене нерухоме майно внаслідок бойових дій, терористичних актів, диверсій, спричинених збройною агресією Російської Федерації проти України : затв. постанов. КМУ від 26.03.2022 р. № 380 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/380-2022-%D0%BF#Text> (date accessed: 21.04.2025).

The full-scale armed aggression of the Russian Federation against Ukraine has caused massive destruction of real estate, vehicles, movable property, and other assets. To determine fair market value for those losses, Ukraine needs a clear legal framework covering valuation methods, damage registration, and protection of victims' property rights. Such a framework should include basic legislative acts, special decrees and regulations, international legal acts, and judicial recourse mechanisms. Let's examine these elements in detail.

1. Basic legislative acts

- The Law of Ukraine: *On Valuation of Property, Property Rights and Professional Valuation Activity in Ukraine* establishes the legal basis for appraisal practice, defines "market value", and sets out core valuation principles ⁹.
- Ukraine's national valuation standards—approved by Cabinet of Ministers resolutions—specifically National Standard No. 1: *General Principles of Valuing Property and Property Rights* ¹⁰; National Standard No. 2: *Valuation of Immovable Property*—lay down general requirements for determining market value ¹¹.

2. Special wartime regulations

- The Procedure for Determining Damage and Losses Incurred by Ukraine Due to the Russian Federation's Armed Aggression ¹².
- Ukraine's Cabinet of Ministers Resolution No. 380: *On Collection, Processing and Accounting of Information on Damaged and Destroyed Real Estate Caused by Hostilities, Terrorist Acts or Sabotage in Connection with the Russian Federation's Armed Aggression Against Ukraine* dated March 20, 2022, which approves the procedure for submitting an information report on damaged or destroyed real estate resulting from hostilities, terrorist acts, or sabotage caused by Russia's armed aggression against Ukraine ¹³.
- The Methodology for Determining Damage and Losses Suffered by Enterprises, Institutions, and Organizations of All Ownership Forms Due to Destruction or Damage to Their Property in Connection With the Russian Federation's Armed Aggression, Including Lost Profit from Interruptions or Obstacles to Business Activity ¹⁴.

9 Про оцінку майна ... URL: <https://zakon.rada.gov.ua/laws/show/2658-14#Text> (date accessed: 21.04.2025).

10 Національний стандарт №1....URL:<https://zakon.rada.gov.ua/laws/show/1440-2003-%D0%BF#Text> (date accessed: 21.04.2025).

11 Національний стандарт № 2 "Оцінка нерухомого майна" : затв. постанов. КМУ від 28.10.2004 р. № 1442 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/1442-2004-п#Text> (date accessed: 21.04.2025)

12 Порядок визначення шкоди та збитків, завданих Україні внаслідок збройної агресії Російської Федерації : затв. постанов. КМУ від 20.03.2022 р. № 326 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/326-2022-%D0%BF#Text> (date accessed: 21.04.2025).

13 Порядок подання інформаційного повідомлення ... URL: <https://zakon.rada.gov.ua/laws/show/380-2022-%D0%BF#Text> (date accessed: 21.04.2025).

14 Методика визначення шкоди та обсягу збитків, завданих підприємствам, установам та організаціям усіх форм власності внаслідок знищення та пошкодження їх майна у зв'язку

These acts require mandatory documentation of property destruction, retrospective valuation as of the destruction date, and specify how to handle documentary evidence.

3. International legal acts

- Convention relative to the Protection of Civilian Persons in Time of War (Geneva Convention IV, 1949) — obliges states to compensate for damage to civilian property¹⁵;
- Convention for the Protection of Human Rights and Fundamental Freedoms (Protocol No 1, Art. 1) — guarantees the right to peaceful enjoyment of possessions¹⁶.

Violation of these rules opens the door to compensation claims before international tribunals.

4. Judicial recourse mechanisms

Determining market value is crucial for substantiating loss amounts in civil, commercial, and administrative cases. Valuation reports must accompany the claim or serve as evidence.

In sum, Ukraine's regulatory framework for valuation of destroyed property rests on the current property valuation legislation, supplemented by special wartime acts. Yet, there is a need for further improvement of

procedures that would ensure effective protection of affected persons' rights.

An analysis of Ukraine's court decisions demonstrates that there is no uniform approach to valuing destroyed assets, complicating enforcement.

Case law on determining the market value of lost property and compensation for damages resulting from Russia's armed aggression has been developing in Ukraine since 2022. Such cases rely on detailed documentary proof of the relevant facts of destruction, proper valuation of lost property, and legal arguments holding the aggressor state responsible. Let us provide a few examples.

1. The LLC "Progress" submitted a claim against the Russian Federation, represented by its Ministry of Defense, to recover USD 16,490,691 in damages for destroyed and stolen property resulting from the occupation of the territory. Documents confirming the property's ownership, inspection reports, photographic evidence of the damage, and financial statements substantiating the value of the lost property served as pieces of evidence. In its decision of October 3, 2024 (No. 908/1891/24), the Zaporizhzhia Commercial Court issued the following: to partially satisfy the claim, recognizing the existence of the defendant's unlawful actions and the causal link

із збройною агресією Російської Федерації, а також упущеної вигоди від неможливості чи перешкод у провадженні господарської діяльності : затв. наказ. Мінекономіки України, Фонду держмайна України від 18.10.2022 р. № 3904/1223. URL: <https://zakon.rada.gov.ua/laws/show/z1522-22#Text> (date accessed: 21.04.2025).

15 Женевська конвенція про захист цивільного населення під час війни від 12.08.1949 р. : ратифік. із застереж. Указом ПВР УРСР від 03.07.1954 р. (зі змін. та допов.). URL: https://zakon.rada.gov.ua/laws/show/995_154#Text (date accessed: 21.04.2025).

16 Протокол до Конвенції про захист прав людини і основоположних свобод від 12.03.1952 р. (зі змін. та допов.) : ратифік. Законом України від 17.07.1997 р. № 475/97-ВР. URL: https://zakon.rada.gov.ua/laws/show/994_535#Text (date accessed: 21.04.2025).

between those actions and the inflicted losses ¹⁷.

2. A claim was filed with the Kyiv Commercial Court seeking compensation for property destroyed during hostilities in Kherson Oblast. The claimant presented ownership documents, inspection reports, photographic evidence of the damage, and financial statements establishing the value of the lost assets as pieces of evidence. In its decision of May 13, 2024 (No. 119166228 in Case No. 910/2822/24), the court found actual losses and a causal link between the defendant's actions and the damage incurred, and it awarded compensation ¹⁸.
3. Another claimant petitioned the Malynovskyi District Court in Odesa to have the right of ownership formally recognized for a house and outbuildings destroyed by the Russian Federation's armed aggression. The claimant sought to secure compensation and provided documents confirming ownership, inspection reports, and photographic evidence documenting the destruction. The court granted that petition on June 18, 2024 (Case No. 521/7347/24), establishing the claimant's ownership of the destroyed property ¹⁹.

4. In Mykolaiv Oblast, the Domanivskyi District Court heard a claim for compensation for property damaged or destroyed as a result of combat operations. Relying on title documents, inspection reports, photographic evidence documenting the destruction, and financial statements of the assets' value, the court determined that all elements of a civil offense were met and ordered to compensate for the caused damages on August 29, 2024 (Case No. 910/3112/24) ²⁰.

5. In Chernihiv Oblast, the Commercial Court accepted a claim for compensation on account of property destroyed by armed aggression. The claimant submitted documents confirming ownership, inspection reports, photographic evidence documenting the destruction, and financial statements confirming the value of the lost property. On September 25, 2024, the court docketed Case No. 927/813/23, taking into account the application submitted by the claimant; the dispute concerns the restitution of UAH 6,609,775.00 in material losses ²¹.

Case law in Ukraine for determining and recovering the market value of property completely destroyed is evolving

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- 17 Рішення господар. суду Запоріж. обл. від 03.10.2024 р. № 122497577. Справа № 908/1891/24. URL: <https://youcontrol.com.ua/catalog/court-document/122497577> (дата звернення: 21.04.2025).
 - 18 Рішення господар. суду м. Києва від 13.05.2024 р. № 119166228. Справа № 910/2822/24. URL: <https://youcontrol.com.ua/catalog/court-document/119166228> (date accessed: 21.04.2025).
 - 19 Рішення Малинов. райсуду м. Одеси від 18.06.2024 р. Справа № 521/7347/24. Провадж. № 2-о/521/323/24. URL: <https://zakononline.com.ua/court-decisions/show/120054806> (date accessed: 21.04.2025).
 - 20 Рішення Доманів. райсуду Миколаїв. обл. від 29.08.2024 р. Справа № 910/3112/24. URL: <https://opendatabot.ua/court/121724492-0a5909d91cd339ac102ce623822e1c16> (date accessed: 21.04.2025).
 - 21 Рішення господар. суду Чернігів. обл. від 25.09.2024 р. № 121858775. Справа № 927/813/23. URL: <https://youcontrol.com.ua/catalog/court-document/121858775/> (date accessed: 21.04.2025).

rapidly. Key trends include relying on retrospective valuation; demanding airtight proof of ownership and of the destruction itself; involving certified appraisers and experts; and a welcoming shift toward accepting digital evidence (photo and video registration in the Diia app).

Determining destroyed property value and securing compensation—whether in domestic or international courts—plays a crucial role in crafting fair-compensation mechanisms for civilians caught in conflict zones.

Ukraine can also draw on other countries' experiences to refine its own legal approaches. Let's consider a few examples.

1. Iraq's post-Gulf War reparations to Kuwait under the United Nations Compensation Commission (1991–2022). After Iraq's invasion (1990–1991), UN Security Council Resolution 692 created the United Nations Compensation Commission to process claims for destroyed property, natural resources, and infrastructure²². Claimants backed their cases with independent expert reports, on-site inspection records, and internationally certified valuations. Over 31 years of the Commission's activity, Iraq has paid out more than USD 52.4 billion in compensation to Kuwaiti claimants, including those affected by the destruction of real estate²³. This is the first time a large-scale international mechanism has

held an aggressor state financially accountable for civilian property losses.

2. The case of *Sargsyan v. Azerbaijan* (ECtHR, decision of 16 June 2015, No. 40167/06). An Armenian citizen claimed that the Nagorno-Karabakh conflict had stripped him of his home. The evidence consisted of: ownership documents and supporting materials demonstrating the impossibility of accessing the property. The Court found a breach of Art. 1 of Protocol No. 1 of the Convention for the Protection of Human Rights and Fundamental Freedoms (hereinafter referred to as the *Convention*)—peaceful enjoyment of possessions—and ordered Azerbaijan either to restore his property rights or to pay compensation²⁴. ECtHR underscored that states must respect ownership even in wartime.
3. Similarly, in the *Loizidou v. Turkey* case (*Article 50*; ECtHR, decision of 28 July 1998, No. 15318/89), a Cypriot citizen sought redress for loss of access to her home in Northern Cyprus following the Turkish invasion. She submitted the recording of property rights in the State Register and the proof that she could not enter her property. ECtHR ruled that indefinite occupation of property without compensation violated the

22 Resolution 692 (1991) / adopted by the Security Council at its 2987th meeting, on 20 May 1991. URL: <https://digitallibrary.un.org/record/113598?v=pdf> (date accessed: 21.04.2025).

23 Компенсаційна комісія ООН — перспектива фінансування відновлення довкілля в Україні після війни із РФ / Екологія. Право. Людина : вебсайт. 2022. 14 с. URL: <https://epl.org.ua/wp-content/uploads/2022/05/Kompensatsijna-komisiya-OON.pdf> (date accessed: 21.04.2025).

24 Case of *Sargsyan v. Azerbaijan*. European Court of Human Rights. Strasbourg. Judgment of 16.06.2015. № 40167/06. URL: <https://hudoc.echr.coe.int/eng?i=001-155662> (date accessed: 21.04.2025).

Convention and made the following decision: Turkey must compensate the woman for the loss of control over her real estate ²⁵.

4. The case *Concerning the Factory at Chorzów (Germany v. Poland*; Permanent Court of International Justice, 1928). Germany sought restitution for expropriated industrial assets in Poland, backing its claims with ownership records and contemporaneous valuations. The Court ordered Poland to pay full compensation reflecting the actual pre-expropriation value ²⁶. This case became the basis for the international principle that “pecuniary damage is that the applicant should be placed, as far as possible, in the position in which he or she would have been in had the violation not occurred”.
5. In *Nicaragua v. United States* (International Court of Justice, 1986), Nicaragua alleged U.S. interference in its internal affairs and the destruction of infrastructure. With evidence including eyewitness testimony regarding damage to civilian infrastructure and damage-cost estimates, the Court held the U.S. responsible and ordered compensation (though the U.S. did not acknowledge the ruling) ²⁷. The judgment reinforced that any use of force causing civilian property damage triggers an obligation to make reparations.

Thus, international case law confirms a universal principle: destroyed property warrants full compensation; payouts must reflect actual market losses; meticulous proof of ownership and of the property's pre-loss condition is vital; and, where appropriate, special compensation mechanisms through international bodies are available.

Valuation methodology for real estate property combines three core elements: estimating reconstruction costs, surveying market conditions at the valuation date, and quantifying an owner's lost benefits from interrupted use. It covers not only direct repair or rebuilding expenses but also compensation for income the property would have generated under normal operation.

Russia's armed aggression has inflicted widespread destruction on Ukraine's built environment. Accurately determining the market value of completely destroyed real property is indispensable for recording losses, assembling evidentiary support in court disputes, securing compensation awards, and processing insurance claims.

The foundation of this methodology rests on both international and national valuation standards.

Key approaches to real estate valuation include:

- 1) *Cost approach*. Values the asset by calculating the cost to rebuild or replace it, then subtracting depreciation. Steps: estimate the cost of con-

25 Case of *Loizidou v. Turkey*. European Court of Human Rights. Strasbourg. Judgment of 30.07.1998. № 15318/89. URL: <https://hudoc.echr.coe.int/eng?i=001-58201> (date accessed: 21.04.2025).

26 The *Factory At Chorzow (Claim for Indemnity) (The Merits)*. *Germany v. Poland*. Judgment of 13.09.1928. № 13. URL: https://www.worldcourts.com/pcij/eng/decisions/1928.09.13_chorzow1.htm (date accessed: 21.04.2025).

27 *Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America)*. Overview of the Case / International Court of Justice : web. URL: <https://www.icj-cij.org/case/70> (date accessed: 21.04.2025).

structing an identical new building; account for physical wear and functional or economic obsolescence.

- 2) *Comparative (market) approach*. Relies on sales of similar properties before the destruction. Adjustments consider market prices for comparable real estate, local adjustments based on location, lot size, and condition.
- 3) *Income approach*. Used less often for residential property and more for commercial assets. Projects the income the destroyed property would have generated.

Valuation process steps:

- 1) *Document destruction*. Capture photos and video; obtain damage inspection reports from the State Emergency Service of Ukraine or local councils.
- 2) *Confirm ownership*. Secure an extract from the State Register of Property Rights and cadastral records.
- 3) *Collect pre-destruction data*. Collect technical documentation (plans, permits, design drawings) and any earlier valuations (if available).
- 4) *Select valuation method*. The cost approach usually prevails, since finding direct market comparables is difficult in wartime.
- 5) *Estimate reconstruction cost*. Use current building-code estimates (DBN) or market prices for materials and labor.
- 6) *Calculate depreciation*. Determine physical deterioration, functional, and economic aging.
- 7) *Set a retrospective valuation date*. Typically, the day of destruction or before the full-scale invasion—i.e., prior to February 24, 2022.

Wartime real estate valuation faces its own challenges: no comparable sales in active combat zones; restricted access to

ruined sites; and limited means to verify technical specifications, etc.

The main method for determining the market value of completely destroyed real estate is the cost approach. It is important to apply retrospective valuation as of the pre-destruction date. Clear proof of ownership and documented destruction is essential. Valuations should draw on publicly accessible construction-market data or official state cost norms.

Valuations of movable property (technology or other objects) are also grounded on cost, comparative, and income approaches. Factors include replacement or repair costs, the asset's market value before destruction, physical condition, age, remaining useful life, and demand for similar items.

Movable assets (machinery, equipment, furniture, appliances, personal belongings, etc.) are often completely destroyed as a result of combat operations. Correctly determining its market value is of paramount importance for filing compensation claims, confirming damages in litigation, and ensuring insurance indemnity.

Key approaches to valuing movable property:

- 1) *Comparative (market) approach* is the most common method for movable assets. It relies on sales data for similar items as of—or closest to—the valuation date.
- 2) *Cost approach* used when no market comparables exist (for example, specialized machinery). You estimate the price of a new equivalent item and subtract accumulated depreciation.
- 3) *Income approach* rarely applied to movables, but suitable for revenue-generating equipment (e.g., manufacturing machines).

Valuation workflow:

- 1) *Documenting the loss* (photo- and video evidence; eyewitness testimony; official reports from the State Emergency Service or police).
- 2) *Providing documentary proof of ownership* (collect delivery-acceptance certificates, warranty cards, purchase receipts).
- 3) *Describing an item's characteristics* (brand, model, year of manufacture, special features, and any included accessories).
- 4) *Determining the market value* (search for comparables on online platforms (Prom.ua, OLX, international marketplaces). Adjust for condition, age, and usage history).
- 5) *Retrospective valuation*. Using the destruction date or the start of hostilities as the valuation benchmark.

Wartime valuation challenges: lack of exhaustive information about the trim; impossibility of physical inspection; difficulty in establishing the initial value without documents.

For totally destroyed movables, the comparative approach prevails, with the cost method reserved for unique or industrial items.

Every datum must rest on solid documentation or independent sources. Valuations should reflect the asset's condition immediately before its destruction.

Estimating the value of a vehicle that was completely destroyed as a result of combat operations presupposes the application of standard methods for assessing vehicle value. These methods include assessing the value of a new piece of equipment and taking into account the reduction in value due to the vehicle's age and use.

The widespread destruction of vehicles resulting from Russia's armed aggression has become commonplace in Ukraine. Accurate market-value assess-

ments are vital for compensation claims, litigation, insurance settlements, and account for losses.

These valuations are performed according to methodologies that adhere to national and international standards.

Fundamental approaches to valuing vehicles:

- 1) *Comparative approach* is frequently employed. Analyzing sale prices of similar vehicles, adjusting for mileage, model year, trim level, and mechanical condition.
- 2) *Cost approach* is applied for rare or special vehicles (e.g., military or heavy equipment), calculating the new unit price minus physical and functional depreciation.
- 3) *Income approach*. Occasionally used for revenue-generating commercial vehicles (trucks, taxis, buses).

Valuation steps:

- 1) *Record the destruction* (photo and video evidence; inspection reports from police or state emergency services).
- 2) *Confirm ownership* (present the vehicle registration certificate [log-book]).
- 3) *Collect vehicle data* (brand, model, year; engine type, displacement, mileage; trim level, and service history).
- 4) *Conduct market research* (identify vehicles' sales of comparable vehicles on websites like RST.ua, AUTO.RIA or international catalogs — using dates as close as possible to the destruction).
- 5) *Adjust valuation* (account for mileage, maintenance status, and any pre-existing damage).
- 6) *Apply retrospective valuation* (estimate value as of the date of destruction or the onset of hostilities).

Challenges of valuation in wartime: no access to a vehicle due to combat operations; rapid market shifts, with severe vehicle shortages; and lost vehicle documents.

The comparative approach is the main method for valuing vehicles. In specific cases, the cost approach is applied.

All vehicle specifications must be meticulously recorded, with all calculations anchored in real market data at the moment of destruction.

Russia's armed aggression has caused widespread loss of Ukraine's fertile topsoil through munitions explosions, land mining, and heavy machinery movement. Topsoil loss carries both ecological and substantial economic consequences. Accurately assessing its market value is essential for holding perpetrators liable, planning land restoration, and calculating fair compensation.

Valuing land parcels with destroyed fertile topsoils requires accounting not only for the land's base value, but also for the costs of restoring soil fertility. It is necessary to include reclamation expenses and any potential environmental impacts that may affect the parcel's value in the future.

Valuation approaches for fertile soils market value:

- 1) *Restoration-cost* approach: value is determined by expenses to rehabilitate the damaged layer or artificially restore fertility;
- 2) *Income* approach is calculated as the loss of income the landowner would have earned by using the land as intended;
- 3) *Comparative* approach is applied only in exceptional cases by comparing land value before and after destruction.

Stages of determining value:

- 1) *Document damage* (images, video footage; inspection acts and protocols issued by appropriate authorities such as State Geological Cadastre, Environmental Protection Agency).
- 2) *Determine affected area* (remote-sensing data; on-field investigations).
- 3) *Analyze damage nature* (complete destruction of topsoil; contamination by toxic substances).
- 4) *Calculate restoration charges* (cleaning the area; import of fertile soil; agronomical and technical measures — land amelioration, fertilizer application).

Valuation peculiarities: when the topsoil layer is entirely destroyed (> 30 cm), complete replacement with new soil is normally required; if the soil is contaminated, additional costs for chemical remediation must be included; mined areas demand separate demining-cost estimates.

The most appropriate method is the restoration-cost approach. The income approach is used only as a supplement to calculate lost profits.

Valuation must rely on actual data about soil types and the damage nature.

Key challenges in valuing destroyed property: lack of clear mechanisms for documenting losses; difficulty applying existing valuation standards; obstacles to accessing damaged assets. To address these issues, new valuation standards that reflect the realities of war must be developed, and modern technologies for remote damage assessment should be implemented.

The process of valuing destroyed property encounters a range of problems that complicate accurate market-value determination:

- 1) *No physical access* to the site due to occupation, minefields, or active combat operations. *Solution methods*: use

satellite imagery; eyewitness photo/video; owner and neighbor testimony; available prior technical documentation.

- 2) *Loss of title documents. Solution methods:* obtain duplicates from registration authorities (State Register of Property Rights to Immovable Property; Unified State Register of Vehicles in Ukraine); use notarized copies or archival extracts.
- 3) *Difficulty determining pre-destruction condition* (impossible to assess exact physical wear or technical state before destruction). *Solution methods:* apply average depreciation statistics by years in service; reliance on the average condition of similar-category assets.
- 4) *Market instability* (sharp price fluctuations for real estate and movable property during war). *Solution methods:* base valuations on market data as of the destruction date rather than the valuation date; conduct retrospective valuations.
- 5) *Uncertainty in valuing unique assets* (rare buildings, specialized machinery, artworks). *Solution methods:* consult international market comparables; seek guidance from specialized experts (museums, auction houses, technical institutes).
- 6) *Object identification issues* (destroyed boundaries of land parcels or building layouts). *Solution methods:* use cadastral maps; data from the Bureau of Technical Inventory; archival plans, and technical passports.

General recommendations to minimize problems: thoroughly document the asset before-war condition (photos, videos, valuations); regularly update appraisers' databases; create simplified

valuation procedures for emergencies; establish a unified registry of destroyed property to track losses.

Valuing destroyed property is a complex undertaking under war conditions. Challenges are resolved by leveraging alternative data sources, applying retrospective valuation, and adopting flexible methodologies.

Legislative and regulatory improvements are urgently needed. To improve the legislation, specialized legal regulations for wartime valuation should be introduced, featuring streamlined loss-documentation procedures and enhanced compensation mechanisms for small businesses and individuals.

The large-scale destruction caused by the Russian Federation's aggression has exposed significant gaps in Ukraine's legal framework for valuing destroyed assets. Refining legislation is critical for prompt loss accounting, fair compensation for citizens and businesses, and filing claims with international courts.

The current legislation poses the following challenges:

- 1) absence of a specialized procedure for valuing destroyed property under martial-law conditions;
- 2) lack of standardized approaches to valuing different asset classes (residential, vehicles, land);
- 3) no clear mechanisms for proving ownership when documents have been lost;
- 4) insufficient procedural assurance for valuation evidence in damage-compensation proceedings.

Proposals for legislative improvement encompass

1. Adopting a specialized law: *Recording and Valuation of Damaged and*

Destroyed Property through Armed Aggression, which shall define the procedure for valuing assets under extreme conditions and provide simplified mechanisms for confirming ownership (e.g., requests, neighbor testimony, archival extracts).

2. Amending the Law of Ukraine: *On Valuation of Property...* specifically by adding a standalone chapter: *Valuation of Property Destroyed Through Force Majeure Circumstances*.
3. Establishing a unified register of damaged / destroyed property by aligning it with the State Geocadastral data, Ministry of Justice, and State Register of Property Rights. Granting open access to judges, notaries, and insurance companies.
4. Developing a model loss-assessment methodology for various asset categories (buildings, vehicles, land, equipment). It should be mandatory for all forensic experts and courts.
5. Streamlining damage-documentation procedures — e.g., formally admit citizen-sourced photo/video, UAV data, and satellite imagery as evidence in trial proceedings.
6. Aligning national approaches with international standards.
7. Reviewing international experience, in particular:
 - Croatia (after the 1991–1995 Homeland War): enacted the Law: *On Registration and Valuation of Damaged Property*, which allows damages to be assessed based on public commission reports even without a court order;
 - Kuwait (after the 1990–1991 Iraqi invasion): established a national loss database; compensation was

paid on the basis of retrospective valuations;

- Bosnia and Herzegovina: courts accept eyewitness testimony and photographic evidence to establish property destruction.

Improving legislation is critical to protecting the rights of citizens and businesses. There is an urgent need to adopt a specialized legal act that incorporates international best practices and standards as soon as possible.

The methodological maintenance for the valuation of destroyed property must be firmly based on international standards, while also taking into consideration the specific local conditions. In addition, it must adequately address the realities of wartime circumstances, capturing the technical and economic shifts within the affected markets. The integration of modern technologies—such as satellite imagery and drone-based aerial photography—for the purpose of remote valuation is essential. Furthermore, the methodology should allow for expedited valuations so that compensation can be issued promptly.

In this context, the availability of clear and reliable tools is vital to ensure accuracy and consistency in valuations.

Principal components of methodological maintenance:

- 1) *Valuation standards*. Market-value valuations should follow international standards to guarantee uniform criteria for all assets and independent appraisers.
- 2) International Valuation Standards (IVS) are a set of globally recognized principles that ensure valuations are transparent and consistent.
- 3) National Standards of Ukraine (ДСТУ) complement international requirements by adjusting them to local specifics.

- 4) ISO 9001: provides overarching quality principles for property valuation.
- 5) *Valuation methods*. The framework must incorporate the three primary approaches—income, market/comparative, and cost—to constitute a unified methodology;
- 6) *Deploying technical tools*. Employing satellite imagery and UAV surveys to document damage in active combat zones, mined areas, or occupied territories. Using specialized software to automate data collection and processing, reducing human error during valuations. Modeling damage where physical access is impossible.

In sum, methodological support for valuing destroyed property requires clear, consistent principles to ensure objective and accurate valuations. Leveraging modern technology and international standards will create an effective system. Streamlining procedures for affected citizens and small businesses will accelerate the economic recovery process and ensure they receive necessary assistance. All valuations should use a single, internationally aligned methodology adapted to specific wartime conditions.-

Courts should adopt simplified processes to resolve disputes quickly and fairly.

Conclusions

The provided research confirmed just how crucial—and how challenging—it is to pin down market value for assets completely destroyed by Russia's armed aggression. An analysis of the current legislation exposed the lack of a single, consistent valuation methodology, which makes it harder both to document losses and secure fair

compensation. Ukrainian courts are gradually developing approaches to resolve damage disputes, but their rulings still vary in scope and rigor.

International experience, specifically practices of European Court of Human Rights, the International Court of Justice, and the UN Compensation Commission highlight three essentials: the use of full compensation principles, impartial asset valuation, and recognition of non-pecuniary harm.

Major obstacles include murky regulations, imperfect valuation methodologies, and the sheer difficulty of collecting evidence in active combat zones. To tackle these gaps, we propose adopting a specialized compensation law, launching a national register of destroyed property, developing standardized valuation methodologies, and leveraging international best practices.

These measures will safeguard the rights of individual victims and build the legal foundation for pursuing reparations against the aggressor state on the world stage.

До питання визначення ринкової вартості повністю знищеного майна внаслідок збройної агресії російської федерації

Олена Усенко

Мета наукової роботи — розглянути методологію та практичні аспекти оцінювання ринкової вартості знищеного майна, визначити правові й методологічні засади, що регулюють цей процес. Для досягнення поставленої мети застосовано аналізування нормативно-правових актів, системно-структурний, порівняльний методи, а також метод експертних оцінок. Розглянуто важливу й актуальну

проблему визначення ринкової вартості майна, цілком знищеного внаслідок збройної агресії російської федерації проти України. Обґрунтовано необхідність розроблення та впровадження ефективних механізмів оцінювання завданих збитків, адже в умовах війни традиційні підходи до оцінювання майна застосувати неможливо. Здійснено системний огляд чинного законодавства України, а також міжнародного досвіду в цій сфері. Проаналізовано наявні методики визначення ринкової вартості знищеного майна, нерухомого й рухомого, а також земельних ділянок, що зазнали пошкоджень. Особливу увагу приділено аналізуванню нормативно-правового регулювання, яке в Україні не відповідає всім вимогам, що постають у разі масштабних руйнувань під час збройних конфліктів. Акцентовано увагу на тому, що недостатньо компенсувати прямі збитки, важливо також забезпечити повне відновлення функціонування підприємств, інфраструктури, а також зважати на потенційні втрати від знищеного майна. У статті не лише проаналізовано наявні методи і правові норми, а й запропоновано конкретні рекомендації щодо вдосконалення законодавства та практики оцінювання майна в умовах збройного конфлікту.

Ключові слова: ринкова вартість; знищене майно; оцінювання майна; законодавче регулювання; методика оцінювання; збройна агресія; компенсація збитків; судово практика.

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