VALUE CHAIN ANALYSIS FOR THE HOUSING SECTOR RECOVERY IN POST-WAR UKRAINE

Abstract. The article presents the results of the analysis of the value chain of the life cycle of the housing sector of Ukraine conducted during the conditions of the legal regime of martial law. According to estimates of the Rapid Damage and Needs Assessment performed as a joint study of the World Bank Group, the Government of Ukraine, the European Commission and the United Nations, the needs for the Ukraine restoration are estimated at US$ 411 billion. At the same time, the immediate needs for the restoration of the housing sector alone are estimated at US$ 1.4 billion. Meanwhile, this study was carried out by the analysis of key elements of the value chain of the housing sector: Institutional framework; Urban planning; Access to land; Developer finance; Construction and Labor Market; Building materials market; End-User Finance; Property Management. The analysis aimed at studying of each element, considering the legal, and institutional framework as of end of February 2023. It briefly described challenges and bottlenecks identified during the analysis. In order to improve the performance of the sector’s recovery, which during the Russian armed aggression against Ukraine suffered significant destruction due to shelling and airstrikes, the recommendations for each section have been developed.
Keywords: institutional framework, urban planning, access to land, developer finance, construction and labor market, building materials market, end user finance, property management, Ukraine recovery.

Formulation of the problem. Russian armed aggression against Ukraine led to the massive destruction of the housing and municipal services. According to the first and second round of the Rapid Damage and Needs Assessment led by the World Bank Group the Government of Ukraine, the European Commission, and the United Nations, and supported by other partners, the needs for the Ukraine recovery and reconstruction is estimated at US$ 411 billion, where immediate needs for the housing sector recovery only is US$ 1.4 billion (the amount aimed at the returning to the pre-war conditions through recovery, considering building back better principles, i.e., implementing energy efficiency measures, sustainable and resilient standards, etc., which does not mean the sum of damages and losses [14]. The recovery of the housing sector is specified as one of prioritized sectors for recovery, because housing is considered not only as a social but economic development target [12]. In the framework of the Ukraine restoration, the Government of Ukraine adopted a set of bylaws including the procedure for the execution of urgent works regarding the liquidation of the consequences of the armed aggression of the Russian Federation, related to the damage to buildings and structures, adopted by Resolution No 473, dated 19 April 2022, where the prioritized objects were specified as follows: kindergartens, schools; health care institutions, social protection services, administrative buildings, civil protection services (fire and rescue units and emergency rescue services), damaged objects of municipal services (electricity, gas, heat supply, water supply, and sanitation), and housing, namely, multi-apartment buildings, and dormitories. The algorithm for the restoration of the housing sector is clearly defined in the Ukrainian legislation. In order to gauge the institutional capacity for the sector’s recovery, the value chain analysis should be kept.

Analysis of recent research and publications. Despite the fighting that is still ongoing in parts of Ukraine, discussions have intensified in recent months about the future restoration of Ukraine after the end of the military conflict. Thus, the study "Ukrainian Reconstruction: Principles and Policy", published in December 2022, describes the general issues of the post-war reconstruction of Ukraine, as well as the recovery of the financial, energy, transport, infrastructure, and other sectors. The studies of other scientists and specialists are also devoted to the post-war reconstruction of cities (N. Berbeka; the team of authors – A. Andrusyvych, N. Andrusyvych, Z. Kozak, S. Romanko). O. Tomchuk and explore the issue of managing the city's human potential in the process of post-war recovery of Ukraine's economy. On the website for the recovery of Ukraine (Ukraine's Recovery), the national programs are advertised. The program of recovery and modernization of housing and regions infrastructure is highly relevant for this study [13]. However, the
issue of recovery of the housing sector in post-war Ukraine requires further research using methods of analysis and synthesis.

The purpose of the article – analysis of key elements of the value chain of the housing sector in post-war Ukraine and development of recommendations for their reconstruction and restoration.

Presenting main material. The value chain analysis for the recovery of the housing sector in post-war Ukraine reflects the following key elements:

- Institutional framework;
- Urban planning;
- Access to land;
- Developer finance;
- Construction and Labor Market;
- Building materials market;
- End-user Finance;
- Property Management.

The sequence of the housing life cycle and may include various stages – the acquisition of land, the design and planning of housing projects, the construction and development of housing units, and the management and maintenance of housing. The housing value chain typically involves a number of participants, including developers, construction companies, architects and engineers, contractors, suppliers, and housing management organizations. These members work together to plan, develop and manage housing projects, from land acquisition and housing unit design to housing construction and maintenance.

The institutional framework in Ukraine in terms of the management of the development, approval, and registration of building regulations, rules, norms, and regulations is an exclusive competence of the Ministry of Regional Development of Communities and Infrastructure of Ukraine (hereinafter MoCTID). MoCTID provides and implements state policy in the field of technical regulation in construction. In 2019, a significant part of state norms was harmonized with EU principles by changing the methods of rationing in construction. The transition from the Soviet regulatory prescriptive method to the more flexible targeted and parametric methods are defined.

There are many specific construction regulations in particular sectors are formed the Ukrainian institutional framework. The regulations for the purposes of housing may be grouped by the following sectors: Urban planning; Construction and architecture; Fire safety and civil protection; Transport infrastructure.

Regulations that directly regulate housing construction and development consist of two main pillars: urban planning and construction. The short list of the State Construction Norms (DBN) for the sector are as follows: Planning and Development of Territories (DBN B.2.2-12:2019); Streets and Roads of Settlements
Based on the results of the analysis, the following recommendations can be formulated (short term for reconstruction, and long term for recovery/reform): i) updating guidelines for reconstruction projects (as an intermediate stage of the process of preparation and adoption of the updated Housing Code); ii) specifying the authorities of municipalities in the following technical areas: enforcement, inspections, review of engineering documents; iii) facilitating the involvement of a broader range of non-government regulation’s developers.

Urban planning in Ukraine is carried out in accordance with the Law of Ukraine "On Regulation of Urban Development" No. 3038-VI, dated February 17, 2011 (hereinafter in this article – the Law 2011).

According to the Law, urban planning is carried out by planning the territory at the state, regional, and local levels. The law provides a multi-level planning system, which includes the General planning scheme of the territory of Ukraine at the high level, Planning schemes of regions at the regional level, and Comprehensive plans for the Spatial Development of territorial communities, General Plans of settlements (City Master Plans), and Detailed Plans of Territories at the local level.

The mentioned above envisages that the development of a territory can be carried out if one of the types of urban planning documentation is developed. Therefore, only a small share of settlements in Ukraine do not have active urban planning documentation at the local level; however, it is worthwhile to admit that a substantial part of such documentation is significantly outdated. 80% of the current urban planning documentation was developed before 1991. Moreover, the modest number of cities approved their plans after 2011: oblast's center cities are eight cities or 37%, cities of oblast importance 48.1%, and 23.7% of cities of district significance [5].

In addition to the above, the Ukrainian government has introduced a new type of non-urban planning documentation called the Comprehensive Restoration Program of Settlements in order to comprehensively address the consequences of Russian aggression. The developed Program serves as initial data for reviewing and designing active urban planning documentation.

Based on the results of the analysis, the following challenges and bottlenecks in urban planning were identified. The significantly outdated planning
documentation is an essential problem for the sustainability and resiliency of settlements.

Although the Law 2011 has a section determines the principles of performing public hearings, the involvement of citizens in decision-making remains insufficient. There are no regulations or recommendations and methodologies of conducting participatory processes. The lack of specific recommendations would likely harm community’s social fabric. In addition, the implementation of the Law 2011 in terms of public hearings can be carried out formally without sufficient public participation.

An additional obstacle for the development of well-designed urban planning documentation is its high cost which in parallel with the insufficient procurement rules in terms of urban planning documentation would also have negative effect. According to the Law of Ukraine "On Public Procurement," the procurement of urban planning documentation, in most cases, is carried out according to the procedure of open bidding, where the main criterion is the price, which clearly affects the quality of such documentation, and may be formulated as the lowest price of a relevant urban planning documentation may imply the lowest quality of the mentioned. However, Ukrainian legislation on procurement allows the ordering of the development of urban planning documentation after architectural competition results (local, regional, all-Ukrainian, and international). Thus, despite the lengthy and expensive competitive procedure, following this type of procurement would boost the quality of urban planning documentation development.

Thus, the main obstacles and bottlenecks in urban planning in Ukraine that affects its comprehensive and sustainable development are a very high percentage of outdated urban planning documentation, its high price in parallel with the low funding, insufficient public participation in decision-making of the community, and procurement of urban planning documentation based on the results of open tenders with a price criterion. Therefore, to improve the sector, the bottlenecks mentioned above shall be considered and addressed.

Therefore, recommendations for urban planning are formulated as follows: i) providing an urban/architectural competitions in procurement of urban planning documentation [1], and ii) updating outdated documentation taking into account Universal Urban Design Imperatives, the Paris Agreement, SDGs, the Leipzig Charter, and EU legislation on implementing the principles of green, just, and climate-resilient settlements. It should be noted that the preparation for updating urban planning documentation would be extremely complicated until it becomes possible to predict the demographic situation. The abovementioned constraint may significantly affect the development the strategic planning.

Access to land. The legislative act that regulates land relations is the Land Code of Ukraine. The Code defines the composition and categories of land, the order of allocation, the sale of the land plots, the change of land plot categories, establishes
the regime of land use, et cetera. According to the Land Code residential construction can be placed exclusively within the boundaries of the area for residential and public buildings, which is established by urban planning documentation. Land plots for the construction and maintenance of multi-apartment buildings are granted for temporary or permanent (applicable for maintenance) use. However, the procedure for determining the boundaries of such areas is not clear.

Allocation of unformed land plots is carried out on the basis of land allocation projects based on the results of auctions with some exceptions. In a simplified way, the procedure for the allocation of a land plot consists of i) an LSG grants a permit for the development of a land allocation project, ii) development of a land allocation project, and iii) approval the land allocation project by a session of the local government council, iv) issuing a deed to the land for the specific purpose.

The grounds for the refusal to grant a permit for the development of a land allocation project for the allocation of a land plot is non-compliance of the land plot allocation with the legal requirements, determined by the Land Code, or/and GPs and other urban planning documentation.

The challenges and bottlenecks related to access to land are defined as follows:

1) Absence of established boundaries of settlements makes it impossible to manage the community's land resources properly, land plots at the borders can be granted by various entities simultaneously. Information on approved projects of a border is listed in the State Land Cadaster for only 34% or 10,044 settlements, respectively [7];

2) State Land Cadaster lacks complete information on land plots formed before 2004, which also greatly harms the management of community land resources. It is worth noting that the legislation of Ukraine proposes to address this problem by developing, updating and making changes to the urban planning documentation where the materials for forming land plots are compulsory. The incompleteness of the State Land Cadaster is an additional challenge - i.e., a lot of communal lands remain unformed;

3) Formation of land plots is carried out according to projects for the allocation of land plots. The procedure is complicated and time consuming due to the decision-making of community councils. Although the procedure has been significantly reformed in recent years and the registration of land management projects partially automated, the procedure remains lengthy.

Based on the above, the implementation of the following recommendations would improve the access to land: i) conducting an inventory of land, and ii) forming unformed land plots, which will speed up the procedure of providing land plots for housing, and iii) starting the procedure of establishing the borders of territorial communities.

Developer finance. The construction industry market in Ukraine is associated
with high risks, such as credit, market, currency, and interest risks. They are related to fluctuations in interest rates in a highly inflationary environment, which is characteristic of the financial system of Ukraine.

The foremost restraining factors in the industry before the beginning of the acute phase of the war were the low solvency of individuals, the lack of available credit, and the instability of the economic situation in the country.

Economy-class apartments were in the most significant demand. Buyers prefer to buy mainly one- and two-room apartments in new residential complexes with infrastructure [2].

Currently, there are two types of fundraising for the construction of a housing construction facility: 1 – direct (authorized capital and lending); 2 – indirect (investing and financing).

It should be noted that the share of developers using direct fundraising was very small at 5% in 2016-2017 but showed a substantial increase to 10-15% [6]. Presumably, these are companies that have successfully performed during the last five-seven years in the construction market and have extensive experience in construction and development. It should also be noted that banks more likely would use lending instruments to support this category of developers, as it is less risky. Purchasing such property is not associated with significant risks; however, the cost of such property is significantly higher than the real estate with objects with the same characteristics constructed by the other categories developers described below.

Another group of fundraising for the construction is indirect. The main feature of this category is a funding attracting option. The construction financing is provided by the end buyers and is carried out following the options: concluding contracts for the sale of objects under real estate objects that will be constructed in the future; issuing targeted corporate bonds, the repayment of which is carried out by transferring the housing construction object; conducting the construction through the construction financing fund.

Such models allow real estate buyers to save up to 30% but are associated with significant risks such as incomplete construction, fraud, and pyramid schemes. Likewise, developers may face such risks as a lack of cash flow for construction. It is worth noting that with the adoption of the Law of Ukraine "On Guaranteeing Property Rights to Real Estate Objects that Will be Built in the Future" No. 2518-IX (entered into force on 10.10.2022), the risks mentioned above should be significantly reduced [11].

In addition, the existing procedure for attracting funds from individuals and legal entities to construction financing funds, where the fund manager is a licensed financial institution with a charter capital of at least 1 million euros and which is responsible for ensuring the interests of investors. A financial institution can create a fund that is not a legal entity, and it can be of two types:

- type A, in which the price and characteristics of the end product are
determined by the developer, where the developer bears all the risks, regarding the insufficiency of the funds involved;

- type B, where the fund manager (financial institution) determines the price and characteristics, and the developer undertakes to comply with the requirements of the fund manager and can conclude insurance contracts for commercial risk insurance; however, type B is not widespread [11].

Another option for construction and attracting finance is provided by the Housing Code of Ukraine. The homeowners association and construction cooperatives financing is the option which allows to attract private financing based on the principle of their share participation in construction [10]. This procedure is also regulated by the Resolution of the Cabinet of Ministers "On Further Development of Housing and Construction (Housing) Cooperation" in 1992. The purpose of the resolution was the transition to a market economy; however, at this time, the indicated procedure is not reliable, and its application, due to its inconsistency with today's realities, is subject to consideration by the courts.

Thus, since most housing construction is carried out at the expense of end users on the construction stage, the main bottleneck in the sector's is economic instability and the low solvency of citizens. The presence of an outdated Housing Code and the inconsistency of some of its provisions also harm the sustainable development of industry. The absence of mandatory insurance for the construction process should also be noted. The increase in the price of the final product by adding the cost of insurance could reduce the risks for all stakeholders in the construction process.

Taking into consideration the concerns mentioned above, the recommendation to the sector may be to i) introduce compulsory insurance for obtaining permission to start construction work, ii) adopt the new Housing Code aligned with EU directives, and iii) promote the participation of banks in lending programs for all types of developers.

Construction and Labor Market. Despite the damage caused to the housing construction sector, the war-oriented state budget and the outflow of labor resources, the construction sector shows a slight growth, which may indicate that the bottom of the market has been overcome. According to the information of the State Statistics Service of Ukraine (SSSU) "Expectations of construction enterprises in the 1st and 2nd quarter of 2023 regarding the prospects for the development of their business activity", the indicator of business confidence in construction increased by 5.8% in the 1st quarter and by 3.6% in the 2nd quarter respectively compared to the 4th quarter of 2022 and is minus 54.4% (the indicator, which is calculated on the basis of prices and the current volume of orders for construction works and expected changes in the number of workers at construction enterprises in the next three months – the methodology is approved by SSSU Order No. 301 dated December 03, 2021). The indicator of the evaluation of the current volume of orders - one of the criteria for
determining the indicator - has been negative for the past 7 years and reached maxima at a level slightly below minus 30% in 2019 and at the very beginning of 2022. The indicator reached its minimum in the III - IV quarter of 2022 at the level of minus 60.2%. The same extremes were shown by another indicator – the expectation of changes in the number of employees, in which the market also shows an increase of approximately 30% compared to the indicators of the second quarter of 2022 [8].

Conducted by SSSU in January 2023 the survey of the sector recorded a slight positive trend of the market in comparison with IV quarter of 2022. To determine market trends, a survey of 291 developers conducted. The answers to the questions made it possible to establish a moderately positive trend in the industry. Answers to questions about changes in completed works, the volume of current orders, the predictability of market improvement, including the prediction of the future trend of increase/decrease in the number of employees, showed positive or zero changes compared to the previous quarter (fig. 1).

![Change in Balance to the Previous Quarter](image)

**Fig. 1.** Survey of developer’s expectations regarding the prospects for the development of their business activity

*The graph is built by the authors based on the data source [8]*

Similarly, positive changes are demonstrated by indicators of construction activity for completed construction work for 2022. Starting from the middle of 2022, the market of multi-apartment houses (MAH) started to pick up and maintained this dynamic until the end of the year. This trend is not characteristic of newly built single-family houses (SFH), which show a slight decline compared to the previous year, but kept the trend to the previous year. Another indicator that may indicate a
positive change in the market is the construction activity curve, which does not show a seasonal slowdown in the 4th quarter, i.e., an annual seasonal trend. On the other hand, this phenomenon may be related to a mild winter and/or the donors’ funding in emergency housing as the state importance objective (fig. 2).

**Fig. 2. Dynamics of the Construction Activity in 2021 and 2022 by Quarters**

The distribution of housing construction by region during hostilities was expected. At the same time, construction activity also decreased in the western regions. However, there are oblasts where construction activity has not decreased significantly compared to 2021 (Chernihivska, Ivano-Frankivska, Khmelnytska, Rivnenska, and Zakarpattia) or even increased, as in Poltava and Vinnytsia regions. Among other regions, we can single out three front-line oblasts – Mykolaivska, Zaporizska, and Dnipropetrovska, which underwent changes but in which the market did not fall like in other front-line areas.

Thus, despite the active hostilities in the eastern part of Ukraine, the large outflow of labor resources, and interruptions in energy supply due to the purposeful actions of the aggressor, the construction market, although significantly reduced, remains moderately active. The survey of construction enterprises showed moderate optimism, particularly the availability of active orders and forecasts for an increase in the number of employees (compared to the previous quarter). Despite the expected seasonal decline in activity, the construction activity curve did not show such a trend at the end of 2022, continuing the dynamics established in the summer of 2022. It should be noted that although regional changes showed a decline in regions with active hostilities, in the other oblasts, such indicators are less critical (Zaporizska oblast) and indicate a moderate decline in construction activity (mostly central
regions), and in some regions, in particular, which are IDP hubs such as Poltava and Vinnytsia, the indicators show an improvement in the market compared to the pre-war year 2021.

**Building materials market.** The year 2022 began to the accompaniment of cautiously optimistic forecasts of experts and subjects of the building materials market in Ukraine. The war triggered destructive factors to the market of construction materials as follows: loss of control over significant territories of Ukraine; destruction of the material base of enterprises producing products for the building materials market of Ukraine.

The construction materials market in Ukraine faced a significant crisis since the war has been started. The destruction of the construction materials manufactures, violation of the supply chain logistics of raw materials and resources, and loss of control over territories which are important for the manufacturing of some groups of products, suffer the market dramatically, especially it is exacerbated by the fact that many of critical infrastructure is located on the eastern part of Ukraine. Two of the five largest metallurgical enterprises – Mariupol Metallurgical Combine and Azovstal – have been lost, the rest – in Zaporizhzhia, Kamiansk and Kryvyi Rih – cannot work at full capacity. According to the results of 2022, the smelting of ferrous metal decreased by 70%, and the output of steel and rolled products fell by 77% compared to the year before. The use of about 57% of the production capacities of dry construction mixtures has stopped because it is located in temporary occupied territories, combat zones or destroyed by shelling. About a quarter of production capacity of heat-insulating materials was lost: In addition, glass, construction chemicals, finishing materials, and others previously imported from Russia and Belarus and currently their supplies are stopped. Reorientation to other countries takes time and is complicated by the increase in the cost of fuel for transport and the blocking of seaports.

According to the results of the analysis of the impact of the war on the construction materials market in Ukraine, it is forecasted significant increase in prices for metal structures and fittings, glass and windows, dry mixtures, insulating materials. Shortage of blast furnace slag, which is used to manufacture some brands of cement. Increase in consumer demand due to the need to restore the destroyed objects.

**End-User Finance.** The Housing Code is the main legal framework document for the housing sector in terms of the housing fund's management, the rationing of housing areas, and accounting of citizens who need housing improvement. Meanwhile, the Civil Code regulates the acquisition of rights, procedures, responsibilities, and other civil relations concerning housing objects.

According to the Housing Code, the housing fund is divided into:
- residential buildings and residential premises in other buildings belonging to the state/ cooperative organizations/ trade unions and other associations (state housing and municipal real estate);
- residential buildings and apartments owned by citizens with private property rights (private housing stock);
- apartments in multi-apartment residential buildings, manor (single-apartment) residential buildings, as well as residential premises in other buildings of all forms of ownership, provided to citizens who need social protection (social purpose housing fund).

The typology regarding the physical characteristics of housing is as follows:
- multi-apartment buildings (low rise: three floors, excluding the attic; medium: 4-8 floors; high rise: more than nine floors);
- dormitories;
- individual houses: up to three floors, excluding the attic with a garden plot or outbuildings, and are designed for one household.

In order to effectively implement the housing policy, the State Specialized Financial Institution "State Fund for Promotion of Youth Housing Construction" (hereinafter – Derzhmolodzhytlo) was founded. Derzhmolodzhytlo is managed by the Ministry of Development of Communities, Territories, and Infrastructure of Ukraine and implements various mechanisms of state support for citizens in the acquisition of their own housing [4].

Currently, there are specific programs for housing assistance for citizens were established by the Government of Ukraine:
- loan from Authorized Capital – provision of long-term preferential loans for the construction and purchase of housing to young families and single young citizens at the expense of Derzhmolodzhytlo funds;
- credit for internally displaced persons (IDPs) and Veterans of the Russian-Ukrainian war – providing a long-term state loan;
- preferential Mortgage Loans for IDPs – mortgage lending at the expense of grant funds provided by the Credit Institution for Reconstruction;
- affordable Housing Program – state support and providing citizens with affordable housing at the expense of the State Budget of Ukraine to provide state support for the construction (purchase) of affordable housing (currently not funded);
- preferential Youth Lending – provision of long-term preferential loans to young families and single young citizens for the construction or purchase of housing at the expense of the state budget. Currently it is not financed by the State budget, but there are local programs that provide some funding for the Preferential Youth Lending program funding;
- lowering the Price of Mortgages - reimbursement by the state of part of the interest on bank loans received for the construction or purchase of housing in new buildings (currently not funded);
- lending to Condominiums program - is the targeted allocation of funds provided in the State Budget for preferential lending to legal entities, including condominiums, the reconstruction, and repair of housing facilities (currently not
Unfortunately, the outdated Housing Code which was developed in the Soviet Union does not correspond to modern realities. It contains norms and terms that do belong to the current economic model of Ukraine and does not reflect any topics on affordability and “green” and resilient houses.

Registers of people needing improvement of housing conditions in communities are poorly governed and work insufficiently. They are maintained by local bodies, numbering thousands of citizens registered in such registers for decades. In addition, several categories must be provided with housing as a priority, which makes this feature rudimentary.

Based on the results of the analysis, the following recommendations for End-User Finance are identified: i) development of the Housing Code aligned with EU directives, based on the principles of affordability, accessibility, and energy efficiency, ii) reviewing of housing sector policy, and iii) reconsidering of the housing strategy.

Property Management. Constitution of Ukraine, and the Housing and Civil Codes, indicate the responsibility of the local self-government for the proper management of community property.

The Housing Code establishes that local self-governments exercise the following powers [10]:
- manage the housing economy, subordinate enterprises ensure comprehensive development of the housing economy;
- carry out housing management, ensure its safety, and major and current repairs;
- supervise the activities of housing and construction cooperatives, the operation and repair of their buildings;
- supervise the maintenance of buildings owned by citizens.

For purposes mentioned above, communities can create municipal entities to maintain municipal property or hire organizations on a contractual basis. Managing municipal entities carry out the necessary measures to the extent of their funding. Although it depends on the capacity of the community, it is more likely that those entities are underfunded, and its management is aimed more at maintenance than at the development of such an economy. Poor funding leads to inadequate quality of services with outdated technical means and poorly motivated staff. All the above directly affects the quality of both residential and non-residential objects.

Maintenance of property that is privately owned in accordance with the Civil Code of Ukraine is the responsibility of its owner. Therefore, the maintenance of the private sector and privately-owned buildings can be carried out only on a contractual basis. A property management market is on its early developing stage and does not create sufficient competition [9]. The maintenance of housing and communal services of condominiums is regulated by the Law “About the ownership in an
Association of co-owners (hereinafter, HOA) - i.e., an association of co-owners of a multifamily building with three or more apartments - a legal entity created by owners of apartments and/or non-residential premises of a multifamily building to promote the use of their property and management, maintenance and use of the common property.

The manager of a multifamily building may be either an individual, an entrepreneur or a legal entity, which under an agreement with the co-owners, ensures proper maintenance and repair of the common property of the apartment building and the surrounding area, as well as proper living conditions and satisfaction of economic and household needs.

Such associations are possible as a result of the construction of new houses by developers, as well as the association of owners of apartment buildings in condominiums of the old housing fund. With this type of economic activity, the condominium must independently resolve the issue of property maintenance. This gives many opportunities for contracting independent organizations, but the budget of such condominiums usually does not allow them to develop the HOA's economy. This applies to valuable assets and works, such as road pavement, complex reconstruction, etc.

However, the government and municipalities have introduced programs to support condominiums, e.g., the "warm loans" program, which will be introduced by the CMU, or the "30/70" program, in which 70% of funding for energy-efficiency works is covered by the city budget.

However, there are some issues the sector faced with:

First. Maintenance of apartments and premises in multi-apartment residential buildings that are privately owned is the responsibility of their owners. This often leads to problems associated with the complex reconstruction of such buildings. For example, the replacement of window frames, glazing of balconies, insulation of facades, and installation of air conditioners is carried out chaotically by apartment owners, formally on the wall of their apartments, but simultaneously on the enclosing structures of the building, which are the property of the community. Such a vague demarcation impacts the quality characteristics of the buildings, e.g., through holes for SAT antennas and air conditioners and poor-quality replacement of doors or windows. It also creates visual noise, distorting the facades of buildings. Another related problem is the complicated maintenance of indoor networks, especially where it is difficult or impossible to disconnect an individual consumer (apartment/premises) from the general network, such as central heating and sewage.

Second. The underdeveloped market for servicing and maintaining housing and communal services makes municipal enterprises monopolists.

Third. Insufficient support for condominiums (HOAs), both financially and institutionally, also affects the sector. Usually, the heads of such condominiums are
chosen from among the residents of buildings who do not have extensive experience and knowledge in managing such property.

Fourth. Low awareness of energy-efficient technologies and the need to follow a green course when managing municipal and private property.

Considering the need for property management to comply with EU directives, resilience, and inclusiveness, the following recommendations can be formulated as follows: i) identifying the list of the most affected and less capable communities to increasing their capacity by the amalgamation with more capable community; ii) review programs on supporting HOAs, and iii) introducing EU directives on property management.

Conclusions. The conducted analysis of the value chain for the housing sector considering its the life cycle through the lenses of the legal framework allows us to draw the following conclusions regarding the restoration of the housing sector. Still the sector remains the most suffered with significant destruction due to shelling and airstrikes as a result of the military conflict. The key elements of the value chain of the housing sector are analyzed: Institutional framework; Urban planning; Access to land; Developer finance; Construction and Labor Market; Building materials market; End-User Finance; Property Management. For each element, the current situation at the beginning of 2023 is briefly described, challenges and bottlenecks are identified. For the organizational, legal and economic support of the recovery of the housing sector in post-war Ukraine, the recommendations were formulated. Directions for further research may be the justification and development of mechanisms for the recovery of the housing sector along the value chain in post-war Ukraine recovery.

References:


