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FACTORS AFFECTING THE CIRCULATION OF AGRICULTURAL LAND IN UKRAINE

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***Abstract.** The article substantiates the expediency of analysing the agricultural land market in Ukraine as a system in which market results (prices, transaction volumes, liquidity, transaction costs) are shaped by the simultaneous action of institutional and legal changes, economic conditions, the quality of land as natural capital, and spatial security risks in wartime. The aim is to classify the factors that determine demand, supply, price expectations and transaction costs, and to explain the mechanisms of their manifestation within the economy of natural resource use and good land governance. The methodology combines a systematic approach, comparative analysis, content analysis of scientific and analytical sources, as well as legal analysis of regulations on land circulation, cadastre, valuation and protection. The empirical context is supported by generalised quantitative indicators of market functioning in 2021–2025 (dynamics of weighted average prices, transaction intensity, ratio of market price to normative monetary valuation), as well as security risk parameters (scale of potential explosive contamination of territories). As a result, nine groups of factors (natural resources, economic, social, demographic,*

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technological, cultural, legal, political and security) were identified, and a logic for their operationalisation through channels of influence and a set of measurable indicators for land monitoring was proposed. The scientific novelty lies in the methodologically correct inclusion of soil condition parameters and war-related access restrictions/limitations as risk and cost components in factor analysis of the market with a focus on evidence-based management. The practical significance lies in the potential to apply the proposed scheme to reduce information asymmetry, increase transaction transparency, and prioritise land protection and restoration measures at the national and local levels.

Keywords: *circulation of agricultural land; agricultural land market; influencing factors; natural capital; soil degradation; transaction costs; land cadastre; normative monetary valuation; military risks; land monitoring.*

Relevance. The launch of agricultural land circulation and the gradual expansion of the circle of entities acquiring ownership rights have increased the demand for a scientifically sound explanation of the factors of demand, supply, and pricing. In this article, the term "land circulation" is used in its legal sense (the procedure for alienation and acquisition of rights), and the term "land market" is used as an economic mechanism for determining prices and transaction volumes. At the same time, circulation operates in an environment of regulatory restrictions and procedures (state registration of rights, cadastre, appraisal, notarial actions), which form a significant share of transaction costs and affect liquidity [1-6].

Empirical reviews of the market show an increase in weighted average prices after legal entities were granted access and significant regional differentiation: according to KSE estimates, the weighted average price of agricultural land rose from about UAH 37,000/ha in 2023 to UAH 44,100/ha in 2024. [14]. State monitoring panels on land relations reflect a further increase in average values in 2025 (based on an aggregate alienation indicator that includes various types of transfer of rights) [15]. This reinforces the need for an analytical framework that explains why and through what mechanisms prices and transaction volumes change, as well as how environmental and security constraints are embedded in these processes [6-10; 16].

Environmental externalities and long-term losses of natural capital (erosion, degradation, pollution) are not always reflected in short-term market price signals, creating a gap between the private and social value of land use [5; 7; 16]. In particular, the JRC summarises that erosion processes are the most widespread threat (affecting about 40% of the territory), while the contamination of arable land with metals/pesticides and other pollutants is estimated at 9-11% [7].

Wartime security restrictions create a specific market mechanism: restricted access to land and the risk of contamination with explosive objects reduce expected returns and may segment the market by spatial premium (discount) [10; 12-13]. According to official and international estimates, at the end of 2024, the area of territories potentially contaminated with mines and unexploded ordnance was about 139,000 km² [12-13], which is a systemic factor for land use decisions and asset values in a significant part of the country.

Therefore, the key scientific problem lies in the insufficient methodological consistency of factor analysis of land circulation with environmental monitoring and land protection tools [5-9; 16] and with legal mechanisms for recording and updating spatial risks and restrictions (cadastre, registration of rights, assessment) [1-5]. This complicates comprehensive risk-oriented management decisions in the field of land management and land resource restoration.

Analysis of recent research and publications. The institutional logic of the formation and regulation of land relations in Ukraine is revealed in the monograph by A.G. Martyn [17]. Analytical reports of the German-Ukrainian Agricultural Policy Dialogue (APD) summarise the course of circulation during the war period, regional differences and risks to property rights, and record price trends in dollar terms [18 - 19]. At the same time, an empirical overview of the early period of the market's functioning (the structure of transactions, the relationship between prices and normative monetary valuation, institutional "bottlenecks") is detailed in the work of A. Tretyak et al. [20], which makes it possible to specify indicators for monitoring and testing hypotheses.

The KSE study on the determinants of land value in wartime offers a

quantitative interpretation: market prices are on average approximately 33% higher than the official normative monetary valuation, and the military factor is associated with a 7-16% price decline and an additional decline in 2024 [10]. Regular KSE Land Market Reviews provide consistent time series on prices and transaction activity [14]. State monitoring panels on land relations provide additional empirical context for assessing aggregate average values and dynamics of land alienation [15].

The environmental and climatic consequences of war, particularly for soil and land resources, are summarised in the JRC technical report [7]. Methodological approaches to recording damage to soil cover and assessing war-related risks to land are demonstrated by studies using remote land sensing and degradation/contamination indicators [8-9; 11]. The regulatory framework for land circulation, cadastre, assessment, and protection is defined by the Land Code and relevant laws [1-5]. The importance of legal certainty and the content of key restrictions in the field of circulation (subject composition, area limits, priority rights, etc.) are emphasised in land law studies, in particular in the work of G.S. Kornienko and M.V. Shulga [21]. International recommendations on good governance and assessment of land management quality are formulated in the VGGT (FAO) and LGAF (World Bank) [6; 16].

Purpose and objectives of the research. The purpose of the study is to scientifically systematize and classify the factors that determine the functioning of agricultural land circulation in Ukraine, revealing the logic of their action through channels of influence on demand, supply, price expectations, and transaction costs in the coordinates of the natural resource use economy. The conceptual emphasis is on integrating land quality parameters as natural capital and military-induced spatial constraints into factor analysis of circulation, as well as on aligning this analysis with institutional and legal mechanisms of land governance (cadastre, registration of rights, valuation, land protection) and good governance requirements [1-7; 16-17].

To achieve this goal, the following tasks have been set:

- 1) to systematise and substantiate groups of factors affecting the functioning of agricultural land circulation;

2) to reveal the cause-and-effect logic of the factors through channels of influence (risk, expected return, transaction costs, information asymmetry);

3) to propose an approach to operationalising factors through a system of measurable indicators for land monitoring, taking into account military and environmental risks;

4) formulate conclusions regarding the scientific novelty and practical significance of the proposed analytical framework.

Materials and methods of research. The information base of the study consisted of scientific publications and monographs on land relations and land market regulation, which provided the theoretical and methodological basis for systematising the factors [6; 16-17]. Analytical reports and applied research on the functioning of the agricultural land market in 2022-2024, used to contextualise the manifestations of factors in the conditions of war and spatial heterogeneity of the market [10; 18-19]. International reports and scientific works on the impact of military actions on the environment and land resources, as well as on methods for recording degradation (contamination) and soil cover disturbances, made it possible to correctly include environmental protection and security dimensions in the factor analysis [7-9; 11]. The regulatory and legal framework was based on the Land Code of Ukraine and special laws on the circulation of agricultural land, the maintenance of the State Land Cadastre, and the assessment and protection of land, which were used to clarify terms, define regulatory restrictions, and form the institutional framework of the study [1-5].

The methodology combined a systematic approach and structural-logical modelling to consider the market as a socio-ecological-economic system and to build the logic of factor - channel of influence - market result in the coordinates of the economy of natural resource use and good governance [6; 16]. Comparative analysis was used for the methodologically correct differentiation of factors and channels of influence (profitability, costs, risk, institutional certainty, transaction costs) and the harmonisation of a nine-group classification with the possibility of further operationalisation through indicators [6; 16]. Content analysis was used to identify

recurring determinants of market behaviour, typical manifestations of military and environmental risks, and to generalise the conclusions of applied research on the spatial and institutional characteristics of pricing [7-10; 18-19]. Legal analysis was used to correctly reflect the regulatory framework for circulation, cadastral registration procedures, valuation rules, and land protection requirements, and to link the proposed monitoring indicators with legal categories (rights, restrictions, encumbrances, protection requirements) [1-5].

Results and discussion. From the perspective of environmental economics, land prices are interpreted as the capitalisation of expected net benefits from ownership (expected rent (profit) minus costs), adjusted for risk and transaction costs. Accordingly, any factor affects the results of circulation (price, transaction intensity, liquidity) through one or more basic channels: profitability (yield, rent, alternative benefits), costs (fertility restoration, recovery, logistics), risks (probability of losses, restrictions, uncertainty, risk premium), institutional certainty (protection of rights, predictability of rules), transaction costs (verification, notarial/registration procedures, time), liquidity or access to finance (credit, collateral, insurance).

It is precisely the distinction between factor - channel - measurable indicator that allows us to move from description to evidence-based testing of hypotheses and to the development of monitoring solutions [3-6; 16].

The proposed classification is based on the identification of nine groups of factors (Figure 1), covering both classical economic and institutional determinants and environmental and security components that are critical to the natural resource use economy [5; 7; 10; 17-19].

It should be emphasised that the proposed framework does not replace econometric analysis, but rather creates a framework for it: each block of factors is linked to specific channels (risk, information availability, transaction costs, expected returns) and comparable indicators. In the author's opinion, it is precisely this operationalisation that reduces the risk of descriptiveness, which is often inherent in generalised lists of determinants, and allows conceptual conclusions to be correlated with empirical data on transactions and prices [14-15; 20].

These indicators do not automatically prove the mechanism, yet they set an empirical field for testing hypotheses about channels of influence (risk, transaction costs, institutional certainty, soil condition).

The classification of factors shown in Figure 1 serves as an analytical framework that allows us to consider the circulation of agricultural land as a system of interrelated determinants rather than a set of separate indicators [17; 20]. Within this approach, each group of factors describes a specific dimension of market interaction: from the quality of land as natural capital [5; 7] to institutional certainty of rights [15; 21] and spatial risks of wartime [12-13]. The following section details the content of the nine groups, showing the channels through which they influence demand, supply, pricing, and transaction costs, which is fundamentally important for land monitoring tasks in the logic of natural resource management economics.

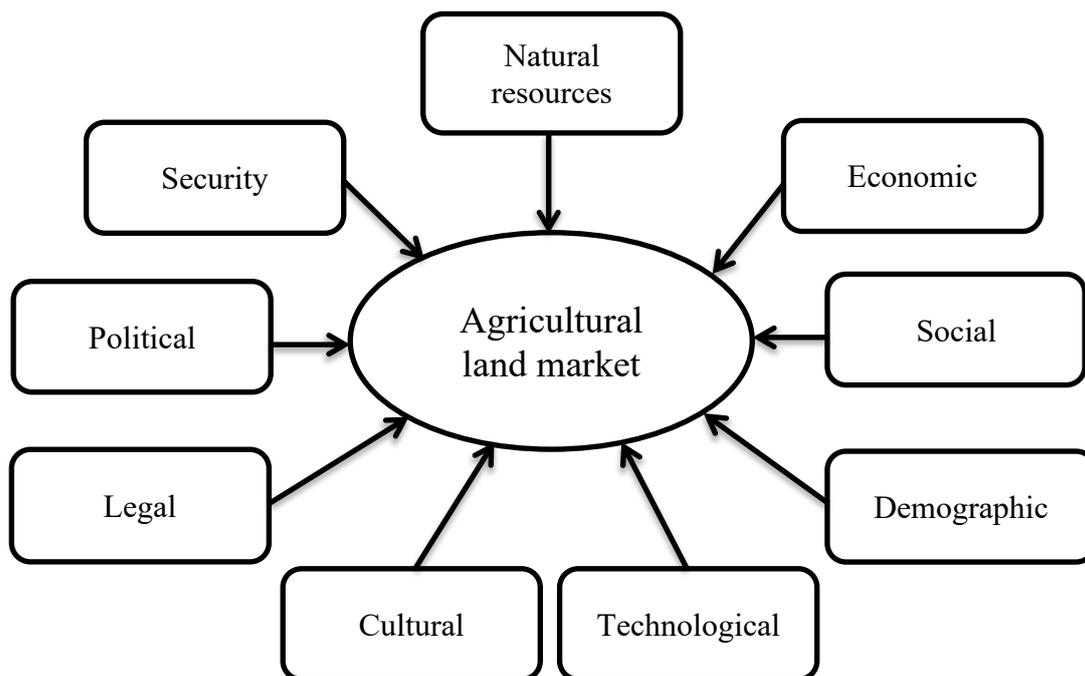


Figure 1 - Groups of factors influencing the circulation of agricultural land (author's development; summarised from [7-11; 17-19])

Natural resource factors reflect the quality of land as natural capital: soil fertility, signs of degradation (erosion processes, compaction, depletion of organic matter), water regime, and vulnerability to pollution. These parameters are important for market behaviour due to the expected costs of restoring fertility, risks of yield

loss, and restrictions on land use. During periods of military action, the environmental protection block is supplemented by the risks of physical damage to the soil cover and possible pollution, which requires monitoring and legal response within the land protection system. [5; 7-9]

Unlike approaches that consider soil quality as a background for pricing, the natural resource block should be interpreted as a long-term determinant of capitalisation, manifested through two measurable mechanisms, namely: expected costs of maintaining (restoring) fertility and the risk of productivity loss. That is why soil condition indicators should be interpreted as risk parameters of an asset that form a discount in price and reduce liquidity on degraded (contaminated) land.

Economic factors include the macroeconomic environment, inflation expectations, access to credit resources, transaction costs, and market infrastructure (notarial procedures, availability of financial and insurance instruments). They affect market liquidity and price formation, in particular through differences in the ability to finance land purchases and assess risk. Analytical materials on the functioning of the market in wartime highlight growing uncertainty, regional imbalances, and the need to protect landowners' rights, which indirectly shape participants' price expectations. [6; 10; 18-19]

Economic factors in Ukraine primarily act as a transmitter of risk to prices due to limited access to credit and insurance. The key factor is not the price level itself, but the market's ability to transform expectations into real transactions: when financing is limited, even a moderate increase in uncertainty quickly translates into a decline in liquidity and an increase in transaction costs.

Social factors reflect the characteristics of market participants' interactions at the community and household levels: the level of trust, the ability to cooperate, the existence of local conflicts over boundaries or conditions of use, as well as the perception of risks and expectations from land reform. They influence the willingness of owners to conclude agreements, the speed of decision-making, and, indirectly, transaction costs (costs of information search, negotiations, and legal support). In practical terms, it is important to take the social block into account when interpreting

regional differences in market activity and developing communication measures aimed at increasing the transparency of transactions. [6; 17-19]

The social block should be considered not as a secondary context, but as a factor in transaction costs and the speed of concluding deals. In practice, it is trust or distrust in procedures and willingness to cooperate that determine whether a legal norm becomes a working institution, so it is advisable to link social indicators to the frequency of disputes, the duration of legal transactions, and recurring bottlenecks at the community level.

Demographic factors are related to the structure of the population in rural areas, migration processes, and mechanisms of land inheritance. Population decline, ageing landowners, and an increase in the proportion of absent owners are changing the supply of land and affecting the fragmentation of rights, which complicates land consolidation and increases the cost of concluding transactions. During wartime, demographic changes are exacerbated by population displacement and changes in the structure of employment, which can lead to increased institutional uncertainty in local markets. [6; 17-19]

Demographic processes should be interpreted as a structural driver of the fragmentation of rights and dispersion of ownership, which directly increases search and coordination costs. Unlike purely economic models, where land supply is a function of price, in real inheritance conditions, and migration shape supply independently of price signals, and therefore require separate monitoring as a factor of long-term liquidity and consolidation opportunities.

Technological factors include the digitisation of land services, the development of geoinformation technologies and remote sensing, and the spread of precision farming tools. Their importance for the market is manifested through a reduction in information asymmetry and the costs of verifying the legal and spatial status of plots, an improvement in the quality of data on boundaries, land use and restrictions, and the ability to quickly track changes in land use and soil cover. In the context of military influences, technological solutions become critically important for recording soils and landscapes damage and for prioritising restoration measures based on

evidence [3; 6; 8-9; 11; 16]. In wartime, the rapid detection of spatial changes and damage is also of additional importance, as it allows decisions to be made with greater certainty and reduces verification costs.

Technological factors reduce information asymmetry only when digital data has legal weight and is regularly updated. This is why digitalisation is not just a service, but a tool for reducing the risk premium in price.

Cultural factors reflect established perceptions of land as a family asset and a source of social security, which shapes behavioural constraints on the sale of land shares and determines the pace of adaptation to market institutions. Attitudes towards land alienation, orientation towards long-term leasing or preservation of ownership may vary significantly between regions, which affects local liquidity and transaction structure. In practical assessments, it is advisable to interpret the cultural block together with social factors, as it is linked to trust and expectations regarding the protection of property rights [6; 16-17].

Cultural factors influence the market through the asymmetry between the economic and social value of land. The author believes that cultural attitudes explain the relatively low elasticity of supply in some communities, even when prices rise, so land circulation development policy must be supplemented with communication tools and guarantees of rights protection, otherwise the market will remain segmented along behavioural lines.

Legal factors determine the framework for land circulation and legal certainty of rights: requirements for state registration, compliance of cadastral information with actual boundaries, existence of encumbrances, procedure for exercising pre-emptive rights, limits on concentration of area, and procedural requirements for legal transactions. In this section, we focus not only on the existence of norms, but also on their applicability and predictability: the vagueness or conflict of certain provisions directly translates into verification and legal support costs, and thus into a price premium for uncertainty [1-5; 21].

Legal factors are central to Ukrainian trade, as they determine the cost of entering into a transaction (time, verification, notarial, and registration actions) and

the limits of permissible behaviour. In the author's opinion, the key difference from many foreign approaches lies in the dominance of procedural costs over pure market costs, so monitoring legal certainty (completeness of data, encumbrances, suspensions, refusals) should be the basic layer of liquidity assessment.

Political factors include the state's strategic priorities in land policy, the consistency of regulatory decisions, and the institutional capacity of authorities to ensure transparency and accountability of procedures. The stability of rules and the predictability of policy influence investors' long-term expectations and the formation of market confidence, while frequent changes in regulation or asymmetry in the application of rules increase uncertainty. In post-war recovery, the political bloc will also determine which instruments of support, compensation, and prioritisation of land resource restoration will be applied and how they will be integrated with monitoring systems [6; 16; 18-19].

Political factors should be interpreted as a factor in shaping expectations and confidence in the stability of rules. Even without formal changes in legislation, ambiguous policy signals or uneven enforcement increase the uncertainty premium and reduce investment activity, so indicators of regulatory stability and data management transparency are important for practical analysis.

Security factors during wartime take on a systemic nature: mine hazards, restricted access to land, infrastructure damage, and the risks of military contamination directly affect the expected returns and costs of land use. Official and international reports consistently indicate $\approx 139,000$ km² as an estimate of areas potentially contaminated by mines and explosive remnants of war, which is a fundamental prerequisite for any assessment of the liquidity and risk of transactions in the relevant regions [12-13]. This leads to spatial heterogeneity in the market, reduced liquidity in certain areas, and increased requirements for land condition checks before concluding transactions. For economically sound decisions, security parameters must be linked to data on soil conditions and land use changes, which enhances the role of environmental monitoring and remote sensing tools [6-11].

The security block is not just another factor, but a spatial constraint that

segments the market into zones of varying accessibility and risk levels. In the author's opinion, in wartime, security parameters should be included in the analysis as a separate layer of risk and costs (verification, demining, access restrictions), as they can completely offset the impact of economic incentives in certain territories.

A substantive analysis shows that groups of factors rarely act in isolation: technological solutions are effective only if the cadastral and registry data are legally certain, and environmental risks are transformed into market outcomes through economic channels (profitability, lending) and institutional mechanisms (use restrictions, security requirements). In wartime, security risks increase the market's sensitivity to data quality and the ability of state and local institutions to promptly update information on the condition of land. Therefore, for the practical application of the classification, it is advisable to immediately set the logic for operationalising factors through channels of influence and monitoring indicators that are consistent with legal requirements and good governance practices [3-9; 16].

The proposed nine-group scheme differs from common lists of determinants in that it separates factors and channels of influence and includes natural capital and war-induced spatial risks as full-fledged components of market logic. The author believes that the link between legal certainty, transaction costs, and liquidity is crucial for Ukraine, with security risks acting as a multiplier in this chain. With low certainty of data and procedures, any risk is converted into a loss of deals rather than a price change. That is why policy and monitoring should focus not only on average prices, but also on the transparency of procedures, data quality, and spatial differentiation of risks.

Thus, factor classification becomes practical when each group is supported by measurable indicators. This allows market statistics (transactions, price expectations) to be combined with information on land quality, cadastral registration status, and spatial risks, forming the basis for risk-oriented monitoring and management of land resources. [3-6; 16]

It is important to distinguish between factors and channels of influence. The same factor can act through several channels: for example, soil degradation or

pollution changes productivity (income channel), increases risk and restoration costs (cost/risk channel), and affects access to finance through changes in collateral valuation (credit channel). This multi-channel nature explains why market outcomes sometimes respond to changes with a delay.

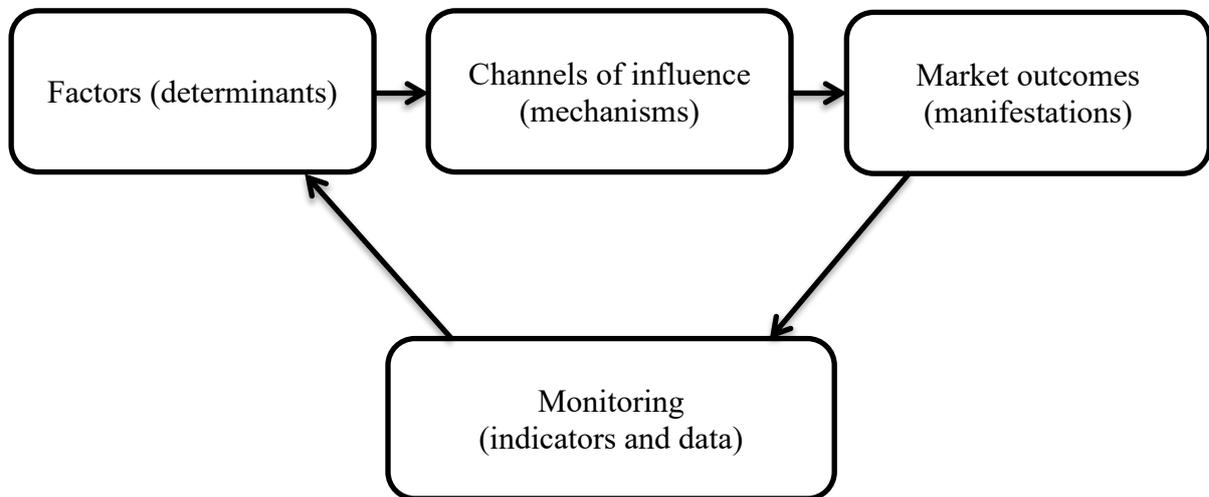


Figure 2 - Logic of factors through channels of influence and monitoring system (author's visualisation)

Figure 2 reflects the logic of factor implementation through channels of influence and emphasises that it is not enough to record only transaction volumes or average prices for land resource management. In practical terms, it is necessary to combine market indicators with indicators of land quality (soil condition, degradation, pollution) and institutional parameters (cadastral completeness, registration procedures), which is consistent with the requirements of national legislation on land accounting, valuation, and protection [3-5; 7-9]. A generalised example of such a comparison is given in Table 1.

Given the realities of war, monitoring should include not only financial and market indicators (prices, number of transactions), but also indicators of the state of land resources and territorial security. The JRC technical report emphasises the scale of the war's impact on the environment and the need for systematic data for recovery policy [7]. Research on the use of remote sensing to assess war-induced changes in land cover shows that such data can be an operational basis for assessing land use risks [8]. In turn, KSE studies on the determinants of land value during wartime show

the sensitivity of prices to spatial and institutional characteristics, confirming the need to combine economic and security data [10].

Table 1. Example of operationalisation of agricultural land market factors

Group of factors	Channel of influence	Examples of indicators (with units)	Typical sources/ data contours
Natural resource	Profitability, costs, risk	humus content (%), pH, erosion risk (percentage of area), signs of degradation (contamination) (percentage of area)	soil surveys, JRC summaries, scientific assessments of remote sensing [7-9; 11]
Economic	profitability, liquidity, financing	weighted average price (UAH/ha), number of transactions (pcs/month), transaction area (ha), rental rates (UAH/ha/year)	analytical reviews, state monitoring panels [14-15]
Social	transaction costs, behaviour	proportion of disputes over boundaries/rights (units/1,000 plots), indicators of trust/awareness (surveys)	administrative statistics, surveys (if methodology available) [6]
Demographic	supply, fragmentation	average age of owner, proportion of absent owners, intensity of inheritance transfers (units/year)	demographic statistics, registration data (aggregation) [6]
Technological	asymmetry, verification	proportion of plots with up-to-date digital boundaries (%), availability of GIS layers of restrictions, frequency of data updates	cadastral/geospatial services, remote sensing [3; 8; 11]
Cultural	liquidity, supply	readiness for sale (% in surveys), length of ownership (years)	sociological data (if available) [6; 16]
Legal	certainty, costs	proportion of plots with full rights (%), proportion with encumbrances (%), frequency of suspensions/refusals in the procedure	registration and cadastral contours, law enforcement statistics [1-5]
Political	expectations, trust	frequency of regulatory changes (number of acts/year), data openness indicators	regulatory acts, assessment using the LGAF approach [6]
Security	risk, costs, access	area of potentially contaminated territories (km ²), access restrictions (percentage of areas), confirmed incidents (number)	official estimates, international reports [12 - 13]

Note: developed by the author based on [1-11; 14-16; 20-21].

In conditions of military action, the interdependence of market and environmental parameters intensifies. On the one hand, uncertainty regarding access to land and legal risks affects investment activity and the structure of demand. On the other hand, environmental consequences (soil cover disruption, potential pollution, degradation) can have a long-term effect on the productivity of agricultural

landscapes and, accordingly, on land capitalisation. Under such conditions, the role of remote land sensing, geoinformation technologies, and open data is growing, as they allow for the rapid recording of spatial changes and the justification of priorities for land use restoration. Comprehensive consideration of the factors listed in Table 1 is necessary for the preparation of management decisions on land management, land protection, and the formation of risk-oriented land policy. [5-11; 16]

Conclusions and prospects for further research. The article systematises the factors influencing the circulation of agricultural land in Ukraine, combining them into nine interrelated groups (natural resources, economic, social, demographic, technological, cultural, legal, political, and security), which provides a comprehensive explanation of changes in demand, supply, and price expectations. The feasibility of interpreting their impact through the channels of risk, expected return, transaction costs, and information asymmetry has been proven, allowing a transition from descriptive generalisations to testable hypotheses and comparable monitoring indicators. It has been shown that in conditions of martial law, security and environmental factors take on a system-forming significance, determining the availability of land use, the structure of transaction costs, and the potential capitalisation of land assets. An approach to operationalising factors through a set of indicators (cadastral and rights registration data, normative monetary valuation indicators, soil degradation (contamination) characteristics, spatial security restrictions) that can be integrated into state and local monitoring to support evidence-based decisions in land management and protection.

According to the author, in the current environment, the key condition for the viability of circulation is not so much the mere existence of market procedures as their transparency and predictability for participants. It is the quality of data (cadastre, registers, information on restrictions) and the speed of procedures that determine whether supply and demand are transformed into real transactions. It should also be noted that military risks should be considered as a spatial filter, namely, for part of the territories, they form a stable discount and a zone of low liquidity until the availability of land and basic guarantees of security of use are

ensured.

The scientific novelty of the results obtained lies in the fact that the factors are considered as a controlled system with clear channels of influence and a set of indicators suitable for regular monitoring and decision-making in land management. In practical terms, this means the ability to move from general assessments of market activity to diagnosing causes (data, procedures, soil condition, spatial risks) and appropriate management actions at the state and community levels.

The practical significance lies in the possibility of using the analytical framework by authorities and communities to reduce information asymmetry, increase the transparency of transactions, and prioritise land protection and restoration measures.

Prospects for further research should be linked to the development of quantitative models for assessing the impact of selected groups of factors on the market value of land and the likelihood of concluding transactions, in particular with the use of spatial methods and risk indicators. A separate area of focus is the development of a risk-oriented set of indicators for state and local land monitoring, which will combine data on the legal status of plots and the results of soil surveys/remote sensing with turnover indicators. Practical verification of such approaches is possible through pilot assessments at the community level, with subsequent scaling up to land use planning and land resource restoration systems.

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ФАКТОРИ ВПЛИВУ НА ОБІГ ЗЕМЕЛЬ СІЛЬСЬКОГОСПОДАРСЬКОГО ПРИЗНАЧЕННЯ В УКРАЇНІ

Анотація. У статті обґрунтовано доцільність аналізу ринку земель сільськогосподарського призначення в Україні як системи, в якій ринкові результати (ціни, обсяги угод, ліквідність, трансакційні витрати) формуються одночасною дією інституційно-правових змін, економічної кон'юнктури, якості земель як природного капіталу та просторових безпекових ризиків воєнного часу. Метою є формування класифікації чинників, що визначають попит, пропозицію, цінові очікування та трансакційні витрати, і пояснення механізмів їх прояву у межах економіки природокористування та належного врядування землею. Методологія поєднує системний підхід, порівняльний аналіз, контент-аналіз наукових та аналітичних джерел, а також правовий аналіз норм щодо обігу, кадастру, оцінки й охорони земель. Емпіричний контекст підкріплено узагальненими кількісними показниками функціонування ринку у 2021–2025 рр. (динаміка середньозважених цін, інтенсивність угод, співвідношення ринкової ціни з

нормативною грошовою оцінкою), а також параметрами безпекових ризиків (масштаб потенційної вибухонебезпечної контамінації територій). У результаті виокремлено дев'ять груп чинників (природно-ресурсні, економічні, соціальні, демографічні, технологічні, культурні, правові, політичні та безпекові) і запропоновано логіку їх операціоналізації через канали впливу та набір вимірюваних індикаторів для моніторингу земель. Наукова новизна полягає в методично коректному включенні параметрів стану ґрунтів і воєнно зумовлених порушень/обмежень доступу як складників ризику й витрат у факторний аналіз ринку з орієнтацією на доказове управління. Практичне значення полягає в можливості застосування запропонованої схеми для зниження інформаційної асиметрії, підвищення прозорості трансакцій та пріоритезації заходів охорони і відновлення земель на державному й місцевому рівнях.

Ключові слова: обіг земель сільськогосподарського призначення; ринок сільськогосподарських земель; чинники впливу; природний капітал; деградація ґрунтів; трансакційні витрати; земельний кадастр; нормативна грошова оцінка; воєнні ризики; моніторинг земель.