

ECONOMIC AND LEGAL ASPECTS OF THE DEVELOPMENT OF INLAND NAVIGATION LAW (BASED ON THE MATERIALS OF GERMANY AND UKRAINE)

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Abstract. The article examines the economic and legal issues of inland navigation development based on the materials of Germany and Ukraine. The *relevance of the paper* of economic and legal aspects of the development of inland navigation and the legal status of a shipowner is due to their importance for science and practice and insufficient development in Ukraine, as well as a significant expansion of inland navigation against the background of curtailment of sea traffic due to Russian military restrictions on the Black Sea. The *purpose of the study* is to identify and analyse the economic and legal factors that contribute to the improvement of inland navigation. The authors use the *methods* of analysis and comparison of theoretical concepts and legal norms, and the method of socio-economic statistics is also used to argue proposals on the topic under study. The paper shows the connection between the concepts of inland navigation law and inland waterways law. This work uses German-language works by W. Koriotoh, J.-H. Krumme, T. Waldstein, H. Holland. The subject and direction of research of Ukrainian scientists P. Kazanski, A. V. Kulko, A. P. Efimenko, E. A. Samoilenko and G. V. Samoilenko are determined. The *results* of the study allowed to expand the understanding of the subject matter of inland navigation law as a set of predominantly private law provisions regulating relations in the field of navigation use of inland waterways. The research analyses the theoretical and regulatory foundations of the concept of inland waterway and indicators of the level of socio-economic development of Ukraine and Germany, which influence the state and development of concepts and norms of inland navigation law. Economic justification is provided for the limits of possible increase in cargo transportation, which may have a stimulating effect on the development of inland navigation law. It is proposed to adopt the best German experience and a temporary solution to the problem of the lack of regulations in the field of inland waterway transport of Ukraine.

Key words: economy, law, inland navigation, shipowner.

JEL Classification: K10, R40

1. Introduction

The development of inland navigation law in Ukraine depends on a qualitative definition of its basic concepts and the legal status of the leading entity – a shipowner. The relevance of consideration of these issues based on the materials of Germany and Ukraine is due to their lack of research in national law and the prospect of adopting advanced scientific developments in inland navigation law and in the practice of application of legislation. To date, the concept and structure of inland navigation law and the legal position of the shipowner in the context of German economy and law have not been

considered in Ukraine. The shortage of scientific publications and training materials, commentaries, and textbooks on most legal topics in inland waterway transport is explained by the long-standing absence of a basic law or code on inland waterway transport (or IWT). Since 1955 and until recently, the Statute of Inland Water Transport of the USSR was in force on the territory of Ukraine – despite the collapse of the Soviet Union in 1991. The Law of Ukraine "On Inland Water Transport", adopted with a great delay (effective from 01.01.2022), hardly regulates private law relations. Its predominantly public law provisions ensure the functioning of inland waterway transport

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and infrastructure, address certain issues of inland waterways, as well as the administrative and legal liability of shipowners for violations of inland waterway transport legislation, etc. Despite the fact that private law relations and civil liability form a larger array in terms of volume and distribution than administrative or criminal law relations. Private law liability may arise without fault or without the commission of an offence by the shipowner, in particular as a result of natural disasters or adverse weather conditions. Administrative and economic liability of a shipowner (according to Article 74 of the Law of Ukraine "On Inland Water Transport") is not a large part of the law governing the position of a shipowner. In addition, it should be borne in mind that law-abiding shipowners do not violate administrative law and may never enter into administrative and legal relations.

The terminology of the Law of Ukraine "On Inland Water Transport" should serve as a legal standard for inland navigation relations, but is overloaded with technical details. Sometimes inconsistent with the rules contained in European legislation, they narrow the scope of inland waterway transport law without convincing reasons.

In the national legal literature, there are no comparative studies of the impact of the economy on the development of inland navigation law based on the materials of Germany and Ukraine. Most of the Ukrainian developments focus on the international public law aspects of this law and do not address the domestic economic or private law components in the context of current German legislation. It is about research on: the history and theory of international river law (Kazanski, 1895), public law aspects of international inland navigation law (Kulko, 2009) and its theoretical basis (Kulko, 2018); issues of improving international legal regulation of navigational use of international rivers and international river basins of Europe; prospects for improving contractual mechanisms for regulating cooperation between states on the navigational use of the main international rivers of Europe and their importance for Ukraine (Kulko, 2013). The article deals with the navigational and environmental aspects of the international legal status of the Danube River (Efimenko, 1998), and the legal regulation of the navigational use of international rivers is explored (Samoilenko, 2017). In Ukraine, only one civil law study has been carried out concerning the contract of carriage of goods in inland waterway traffic (Samoilenko, 2003). In Germany, the research on private law relations and the economic basis of inland navigation law, which is not comparable to that in Ukraine, is quantitatively dominated by studies of private law relations and the economic basis of inland navigation law. The prevailing position

in Germany is that they form the basis of inland navigation law. Summarising the existing domestic developments and comparing the results with the materials from Germany, which has the largest economy in Europe and a developed private inland navigation law (PIL), proved to be a useful tool for understanding what can be borrowed from best practices.

The purpose of the paper is to present information on the improvement of important components of inland navigation law in Ukraine in the context of German law and to reveal their connection with the specific economic conditions of the country, and to provide recommendations arising from the study.

2. Materials and Methods

The research is based on modern German-language sources and domestic materials – scientific literature, regulations and practice of their application relating to the economic aspects of inland navigation law, in particular, the legal status of a shipowner. The article uses the results of the analysis of the decisions of Ukrainian courts (the list of case numbers of the decisions studied is attached) (List of case numbers whose decision was used in the study).

The study was carried out in several stages. Out of a large number of sources, only those already classified as important by the Institute of Transport and Traffic Law of the University of Mannheim (Germany), one of the most reputable specialised educational institutions in Europe, were selected and studied; subsequently, a commentary on the German Act on Private Law Relations of Inland Navigation (Gesetz betreffend die privatrechtlichen Verhältnisse der Binnenschifffahrt (Binnenschifffahrtsgesetz; BinSchG)) translated into Ukrainian and other sources was made; finally, the results obtained in Ukraine were compared with the data of the German authors.

A system of methods of scientific cognition was used: general scientific (quantitative and qualitative analysis, synthesis) and special legal (formal legal, comparative legal). The general philosophical (universal) method was used at all stages of the cognitive process.

The article describes certain economic and legal aspects of inland navigation and the legal position of a shipowner based on the materials of Germany and Ukraine, also using the comparative analysis method.

The method of socio-economic statistics is applied to study the quantitative indicators of the socio-economic situation in Ukraine and Germany and its impact on the development of inland navigation law. By applying this method, the parameters of economic conditionality of legal phenomena in Ukraine and Germany are determined. With certain

reservations, the SWOT analysis method was used to identify favourable and unfavourable conditions for the development of the IWT infrastructure in the context of economic indicators in Germany and Ukraine.

Formal legal and systemic-structural methods are used to clarify and disclose the details of the concept of inland navigation law and the legal position of a shipowner.

The legal framework of the study includes the legislation of Ukraine, Germany and other countries. It is based on the following: the Water Code of Ukraine (The Water Code of Ukraine), the Law of Ukraine "On Inland Water Transport" (The Law of Ukraine "On Inland Water Transport"), United Nations Convention on the Law of the Sea of 10.12.1982 (United Nations Convention on the Law of the Sea of 10.12.1982), Resolution of the Cabinet of Ministers of Ukraine "On Approval of the List of Inland Waterways Belonging to the Category of Navigable Waterways" No. 640 of June 12, 1996. and Resolution of the Cabinet of Ministers of Ukraine "On Approval of the List of Inland Waterways Belonging to the Category of Navigable Waterways" No. 136 of February 9, 2022 (Resolution of the Cabinet of Ministers of Ukraine), Merchant Shipping Code of Ukraine (Merchant Shipping Code of Ukraine), Act on the Private Law Relations of Inland Navigation (Inland Navigation Act; BinSchG) (Gesetz betreffend die privatrechtlichen Verhältnisse der Binnenschifffahrt), Act on the Tasks of the Federation in the Field of Inland Navigation (Binnenschifffahrtsgesetz – BinSchAufgG) (Gesetz über die Aufgaben des Bundes auf dem Gebiet der Binnenschifffahrt), Federal Waterways Act (WaStrG) (Bundeswasserstraßengesetz).

3. Results and Discussion

Shipping in general, and the inland waterway (or IWW) sector in particular, is an important pillar of both the European and global economy. The competitive advantages that IWT provides for the transport of large quantities of goods over long distances include safety and cost-effectiveness in terms of total transport costs. In this sense, the inland waterway transport is unrivalled. According to the State Statistics Service of Ukraine, in 2010, river transport significantly outnumbered sea transport. Over the next 10 years (the Service provides data on maritime and river transport separately only for 2010–2020), this advantage increased significantly against the backdrop of a sharp decline in traffic in both water transport sectors. While river freight in 2010 totalled 6989.5 thousand tonnes, in 2020 it was 3788.4 thousand tonnes, a decrease of about 2 times. In the same years, sea freight from 4067.8 thousand

tonnes decreased to 1812.2 tonnes, which is about 3 times less.

At the same time, there is a need to improve the defining concepts of domestic inland navigation law due to its significant differences from the law of EU countries. The improvement and development of inland navigation law is closely linked to the economic indicators of the country and shipping, which affect the scope and quality of regulation. The narrow definition of inland navigation law impoverishes it, and some of the relations related to it sometimes fall under the regulation of maritime law. Until 2022, transportation on the Danube River was regulated by the maritime law of Ukraine rather than the maritime law of Ukraine. Prior to the entry into force of CMU Resolution No. 136 of February 9, 2022, this waterway was subject to the maritime law regime, which contributed to an artificial reduction in the volume of inland waterway traffic. The use of a broader definition by foreign countries naturally entails expanding the scope of regulation of inland navigation. It includes those that relate to inland navigation on the border with maritime law. This refers to the relationship between shipping off the coast and in estuaries. In Belgium, since 2007, inland waterway transport – barges reinforced for seaworthiness – has been used to transport goods by water along the North Sea coastline between the ports of Ostend and Zeebrugge and the mouth of the West Scheldt River. In the Netherlands, inland waterway transport – historic sailing ships – transports tourists along coastal routes located on inland sea waters in the Markermeer, Eijsselmeer and the Wadden Sea. Coastal routes, with the exception of connected inland waterways, are maritime waterways where investments should increase transport efficiency or potential economic benefits. Investments aimed at the development of maritime shipping alone can in practice also serve to improve navigation conditions along the entire network of routes covered by the European Agreement on Main Inland Waterways of International Importance, especially for river-sea traffic.

The existing notion of "inland navigation law" in any country is closely related to the definition of the terms inland navigation and inland waterway (or IWW). However, neither the legislation nor the law of Ukraine provides an unambiguous, universally recognised formulation of these concepts. The idea that shipping is called inland because it uses inland waterways is a true reflection of the essence of things. Inland waterways are used *mainly by inland water transport*, whose activities are regulated by the law of inland navigation. When dividing shipping into maritime and inland navigation according to this criterion (characteristics of the routes used), several issues remain unresolved. As shown in the article, inland waterways sometimes include not only river

waterways, but also some sea routes. Sea vessels are able to use river routes, and river vessels can use sea routes.

However, the Law of Ukraine "On Inland Water Transport" (or the IWT Law) has reduced the scope of regulation of inland navigation relations that existed before its enactment to the concept of "inland waterway" (IWW). The Law defines "inland waterways" as surface waters and excludes from their list such objects as seaport areas, shipping channels and inland sea waters. The Law amended Article 67 of the Water Code of Ukraine, which establishes restrictions on the scope of inland navigation law. The previous version of Art. 67 of the Water Code of Ukraine (as amended on 02.10.2021) referred to inland waterways as rivers, lakes, reservoirs, canals, other water bodies, inland sea waters and the territorial sea. The current version of this article turned them into *public waterways* by deleting the word "inland". According to the IWT Law, canals are not included in the list of IWW, although the Resolution of the Cabinet of Ministers of Ukraine No. 640 of June 12, 1996 (no longer in force), as well as authoritative foreign sources, included canals on land and approach canals to seaports in the list of river and sea navigable inland waterways.

There remains an inconsistency between the definition of inland waterway in the Law on the IWT and the provisions of the 1982 UN Convention on the Law of the Sea. The list of inland waterways should be based on the provisions of the Convention, which uses the internationally recognised concept of inland waters. The waterways located on them are considered inland waterways because they are located within the territory of the state. The absence of a convincing interpretation of the concept of "inland waterway" in the Law of Ukraine on IWT is one of the arguments in favour of studying and borrowing foreign experience.

The definition of the concept of inland navigation law and the legal status of entities are important issues, the vision of which does not reflect unanimity among German scholars. This can be observed on the example of the fourth, revised edition of the textbook by W. Koriöth "Binnenschiffahrtsrecht" (Koriöth, 2016), which is used in the retraining of lawyers. The issues of law and economics of the water management complex determined the structure of the textbook by W. Koriöth. The main components of the content are the legal status of persons and limitation of shipowner's liability; rights of the ship's creditor; provisions on freight, carriage of passengers and baggage, economic and legal issues of general accident and collision. The textbook contains statements that give grounds for denying that there is a right of inland navigation (hereinafter – RIN). J.-H. Krumme considers inland navigation law to

be a part of shipping law, which contains public and private law rules governing relations in the fields of maritime and inland water transport (Gabler's Encyclopedia) (Binnenschiffsrecht). This definition, however, is erroneously based on the Act on the Tasks of the Federation in the Field of Inland Navigation (BinSchAufgG). The concept of inland navigation law is associated by J.-H. Krumme connects the concept of inland navigation law only with the regulation of shipping relations in the field of transport. He and some other researchers do not pay due attention to the distinction between inland waterways and sea routes.

The Encyclopedia of Inland Waters also does not contain a definition of inland waterway, although the term is used 26 times. The Encyclopedia contains the term "inland water environment", which covers "...temporary puddles, ponds, lakes, inland seas, streams and rivers, and full-flowing rivers" (Encyclopedia of Inland Waters). The British Encyclopaedia (Britannica) defines inland waterways as canals, all other natural or artificial waterways used for navigation, irrigation of crops, water supply or drainage (Canals and inland waterways). The German encyclopaedic dictionary Duden defines an inland waterway as a pathway that is connected to land and surrounded by it on all sides, such as a river, canal, etc. In the German Bundeswasserstraßengesetz (WaStrG) (Bundeswasserstraßengesetz), the emphasis is not on the distinction between inland waterways and sea routes, but on their belonging to federal or other waterways. According to § 1 of the Act, federal inland waterways include those intended for public use. The List of Inland Waterways (Annex 1 to the Act) includes the Elbe, Danube and other rivers. Inland waterways are defined in a similar way in § 15 of the Bundesgesetz über die Binnenschiffahrt (Schiffahrtsgesetz – SchFG) (Bundesgesetz über die Binnenschiffahrt).

The authors of the 5th edition of the Binnenschiffahrtsrecht: Kommentar, T. Waldstein and H. Holland, unlike W. Koriöth, define the concept of inland waterway quite broadly. According to them, these are routes located *on inland waters*. This refers to natural streams, rivers, watercourses and sea areas, as well as artificial waterways and canals. In developing the concept of inland waterway, the authors make reasonable use of the theory and rules of maritime law and argue that Germany has introduced uniform general liability in water transport since 1998. As a result, the important distinction that previously existed in this regard between the law of the sea and the law of inland navigation has lost its significance. The decisive factor is the purpose of the vehicle for use on inland waterways or sea routes (Waldstein, Holland, 2007). This position is in line with the idea of the need to integrate ocean, coastal and inland navigation

(Willems, Abecasis, Catena, 1982). The point of view of T. Waldstein and H. Holland and the overwhelming majority of German scholars who define inland navigation as the navigable use of inland waterways coincides with the concept of the German Act on Private Law Relations of Inland Navigation (Binnenschiffahrtsgesetz; BinSchG) and its status as the main regulatory act in the legislation on inland navigation.

An important part of inland navigation law is the system of rules that defines the legal position of the shipowner. The Law of Ukraine "On Inland Water Transport" defines a shipowner as a business entity or an individual who operates a vessel on its own behalf, regardless of whether it owns the vessel or uses it on other legal grounds. According to the latter, the disadvantage of this concept is the lack of unity of the criterion by which shipowners are divided into business entities and individuals. In addition, individuals may also be business entities. A better concept is that of a shipowner, which is defined in civil law terms, i.e., as a legal entity or individual who operates a ship on its own behalf, regardless of whether it owns the ship or uses it on other legal grounds (The Order of the Ministry of Transport and Communications). This definition is in line with the Council of the European Union Directive of 9 November 1987 on access to the professional activities of operators of carriage of goods by national and international waterways (Council Directive). The Directive uses the term "activities of an operator of inland waterway transport of goods". It is... carried out by any natural person or enterprise in the field of carriage of goods by inland waterways for hire or for remuneration, even if this type of activity is not carried out on a regular basis. In Germany, the concept of shipowner is consistent with the nature of its private law and the requirements of EU law. According to § 1 of the BinSchG, a shipowner is the owner of a vessel who uses it *on rivers or other inland waters* for the purposes of navigation. In relations with third parties, those who use a vessel that does not belong to them for inland waterway navigation and operate it independently or entrust it to the master are also treated as shipowners.

Given that the shipowner independently enters into economic relations of inland navigation, which are predominantly private law in nature, Ukrainian legislation should have civil law rules defining the position of the shipowner. Although other persons may influence inland navigation, they are not able to determine its emergence or termination by their own actions. The negative consequences of the lack of the necessary civil law regulation of the position of the owner of an inland navigation vessel in Ukraine are growing. One of the factors behind this growth is the increase in the number of private

ship owners and private inland waterway transport infrastructure.

Specific components of the legal position of a shipowner in Germany and other countries include the right to limit its own liability in the event of an accident. Ukrainian law does not provide for the possibility of limiting the liability of a shipowner in domestic shipping for damage to property of individuals and legal entities, including damage to port infrastructure or inland waterways, or for damage caused by oil or other substances pollution from the ship.

The shipowner's right to limit its liability is also related to the arrest of the vessel, which is carried out in case of default on certain obligations or to ensure their fulfilment in the future. A selective analysis of court decisions from the Unified State Register of Court Decisions showed that approximately one third of ship arrests are related to shipping. In Ukraine, there are no civil law provisions on compensation for damage by the shipowner. In Germany, this issue is regulated by the Act on Private Law Relations in Inland Navigation (BinSchG).

A shipowner in Germany, unlike a shipowner in Ukraine, may limit its liability on the grounds provided by law. In particular, if the claims arise from damage to person or property that occurred on board or in direct connection with the use of the vessel or during salvage, including in connection with the repair of damage (§ 4 of the BinSchG). Claims for liability are subject to limitation regardless of the grounds for them, whether they are of a private or public law nature, and whether they arise on the basis of a contract or otherwise, whether from a recourse or compensation claim. However, claims for repair of damage are not subject to limitation of liability if they are contractually directed at agreed compensation.

According to German legislation, if damage is caused by a person who was not on board the ship, the shipowner responsible for the acts and omissions of that person may limit its liability if they (the act or omission) were connected with the navigation or management of the ship, with the loading, carriage or discharge of cargo, baggage or hand luggage, or with the embarkation or disembarkation of passengers. A similar limitation on the shipowner's liability exists in domestic maritime law (Article 352 of the Merchant Shipping Code of Ukraine). The above suggests that it is advisable to adopt these provisions by the domestic law of inland navigation. During the transitional period, when there is a lack of legal provisions and, accordingly, no judicial practice of their application, it is possible to temporarily use existing German and other foreign or international developments in Ukraine. These are the documents of the United Nations Economic Commission for Europe in the field of inland waterway transport that

Ukraine could use. To address the main problems of inland navigation law and its individual institutions, it is advisable to conclude more bilateral and multilateral agreements on the development of international transport and cross-border systems, strengthen the exchange of best practices and intensify strategic dialogue to improve the efficiency of inland waterway transport.

In the digital age, new actors are joining the shipbuilders and equipment manufacturers: the creators of electronic control programmes (which enable autopilot operation), providers of information on the current situation on waterways, etc. Ship owners are increasingly dependent on the quality of the components they receive from them. The Central Commission for the Navigation of the Rhine has drafted a number of regulations on automated shipping. The use of the 5 levels of ship automation developed by the company (level 1 – control support; level 2 – partial automation; level 3 – conditional automation; level 4 – high level of automation; level 5 – autonomous = fully automated) helps to delineate the specific powers of persons involved in shipping and assists in determining the responsibility of the owner and operator of an autonomous ship controlled by artificial intelligence.

The level of economic development of a country affects the state of legislation and law, the quality of the definition of concepts or the status of entities in the field of inland navigation. In the table "**Socio-economic indicators of the development of individual countries**" in 2019, column 1 contains a list of countries by population; column 2 – a list of countries by gross domestic product, etc. The table uses official information from the International Monetary Fund and the Human Development Report (United Nations Development Programme) (UN human development reports).

The table shows that the volume of IWT traffic in Ukraine does not correspond to the level of its socio-economic development. Ukraine should have a better ratio than the current one compared to the development indicators and traffic volume in Romania and Germany. Ukraine's traffic figures should differ by a factor of 2 compared to Romania, not the current 8;

compared to Germany, traffic figures should differ by a factor of 12, not the current 51. At the same time, these discrepancies indicate the real extent of the reserve for possible future traffic and, accordingly, the need to improve the provisions of inland navigation law.

The evolution of the share of *inland waterway transport traffic* in EU countries is one of the indicators of its actual importance for the economy among other modes of transport and an indicator of its development or decline. Comparing 2021 with 2011, the share of inland waterways in total freight traffic decreased in 11 of the 17 EU Member States where this mode of transportation is used. The largest drops were recorded in Luxembourg – by -3.2%, Belgium (-2.0...) and Germany (-1.5...). Over the same period, only two EU member states showed a slight increase: Slovakia (+0.7..) and Finland (+0.1..). The shares for other countries with data for both 2011 and 2021 remained unchanged. Compared to 2020, the *share of maritime freight* in 2021 decreased by 1% in most EU Member States (17 out of 22 Member States with seaports). Overall, this drop was not significant, and over the past decade, the share of maritime transport in total freight traffic has remained relatively stable in most EU Member States. In 2021, the *share of EU road freight transport* (measured in tonne-kilometres) increased by 1.7% compared to 2011. Thus, despite its advantages, the share of IWT traffic has decreased over the past ten years compared to traffic by more expensive and environmentally harmful road transport, while the share of the latter has increased.

Socio-economic indicators of development indirectly influence the formation of law, in particular through the improvement and development of infrastructure, which is one of the components of inland navigation. The development of inland waterway transport infrastructure in Germany and Ukraine has some similarities and differences. A SWOT analysis of Germany's inland navigation infrastructure policy (VBW e.V. – Studie) shows that there is insufficient funding for inland waterway transport and a lack of political legitimacy for large projects in this country. Which are often perceived by the population as projects of the central government

Country	Population	GDP	GDP (nominal) per capita	Human Development Index	IWT freight volume
Ukraine	41,830,600 people excluding the occupied Crimea) (32nd place)	161.87 billion USD (58th place)	3 880 USD (119th place)	0.750 high, 88th place	3.990 million tonnes [28]
Romania	19,523,621 people (61st place)	261.868 billion USD (46th place)	13,414 USD (57th place)	0,816 very high, 52nd place	33.261 million tonnes [29]
Germany	82 979 100 people (17th place)	3.951 trillion USD (4th place)	47,662 USD (18th place)	0.939 very high, 4th place	205 million tonnes [30]

alone, with little regard for regional and local specifics. The high susceptibility to lawsuits, double assessment of the environmental impact of projects (during the design process and at the stage of public review), and the involvement of the public in discussing projects at the final stage delay project implementation for years. These unfavourable conditions (Kotler, Berger, Bickhoff, 2010) apply to Germany. In Ukraine, with certain reservations, they can be considered favourable in the sense of faster project implementation. An assessment of the Strategy for the Development of Inland Waterway Transport of Ukraine until 2031 and its implementation action plan (Analytical materials to the draft Inland Water Transport Strategy of Ukraine for the period until 2031) shows that Ukraine attaches less importance to the environmental impact of inland waterway transport projects than Germany (CEO of the Strategy of Inland Water Transport Development of Ukraine: position of NECU); there are almost no lawsuits regarding the harmful environmental impact of projects in Ukraine, and public influence on such projects is minimal. In this sense, in the context of this study, the development of IWT infrastructure in Ukraine is more favourable than in Germany. In some countries (Brazil), a very complex environmental legal framework (similar to Germany) has also been established. The environmental certification process was later simplified, although it is still complex and time-consuming, which delays infrastructure development (Machado, Kaisera, Bezerra, Castro, 2013).

According to the data, Ukraine's performance in comparison with other countries in terms of the length of inland waterways and traffic on them in the past is comparable to Romania's. There are three navigable rivers in Ukraine, two of which are among the top 5 largest rivers in Europe. In 2012, the length of the *used* inland waterways was 1672 km, in Romania in 2010 it was 1731 km, and in Germany – 7467 km (Wasserstraßen nach Ländern). In terms of the *total* length of navigable inland waterways – 2,241 km – and the volume of cargo transported by them in 1990, 60 million tonnes (this figure in 2019 was 3.990 million tonnes according to the State Statistics Service of Ukraine, and 8 million tonnes according to the Ministry of Infrastructure of Ukraine), Ukraine had better performance than Romania. In terms of human, institutional and other indicators of legal capacity, Ukraine also has a comparable position to Romania. According to the "Ranking of International Scientific Journals and Countries" based on Scopus® data as of April 2021, Ukraine and Romania had almost equal positions, ranking 42 and 41 respectively (Scimago Journal & Country Rank), which may indirectly indicate the reality of domestic prospects for a quick and high-quality solution to the main problems of inland navigation law, as is the case in EU countries.

4. Conclusions

Improving the law of inland navigation and its individual institutions, concepts, and the legal position of the domestic shipowner, including the creation or adoption of rules governing the limitation of his civil liability for the consequences of an accident, is an urgent requirement to overcome legislative gaps. The study has shown that the level of economic development of a country is a factor that indirectly affects the state and prospects for improving the law of inland navigation, and determining the subject matter of legal regulation of inland navigation relations. The issues of inland navigation law, including the improvement of the legal status of the shipowner, can be resolved in Ukraine with the help of the developments existing in German law and in the law of other EU countries. In Germany, the issues under study have been implemented in accordance with the economic resources available in that country and in line with EU standards. In Ukraine, it is recommended to create an inland navigation law based on the German model, which is a set of rules of predominantly private law. They should regulate shipping relations on inland waterways located on land and in inland sea waters. In defining the concept of inland waterway, the internationally recognised provisions on inland waters contained in the 1982 UN Convention on the Law of the Sea should be a reference point. The socio-economic situation, the volume of traffic and the considerable length of navigable inland waterways in Ukraine create prerequisites sufficient for significant approximation of the national legislation and economic basis of inland waterway transport law to German legislation.

In addressing the main issues of inland navigation law, the focus should be on the use of favourable natural factors and the previously achieved indicators of inland waterway transport in Ukraine. When borrowing German developments, one should not ignore the developments in the inland navigation law of neighbouring Romania, as the indicators of Ukraine's socio-economic development are closer to those of Romania than to those of Germany.

5. Recommendations

It is necessary to focus on the socio-economic indicators of the country's development in order to find reserves for the growth of inland navigation, which determines the development of inland navigation law. More use should be made of Germany's experience in creating domestic private inland navigation law and improving the Law of Ukraine "On Inland Water Transport" and other regulations. The implementation of the recommendations outlined in this article should help to intensify activities in this sector, increase economic performance in transportation and develop the infrastructure of the IWT.

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