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PORT DUES AS THE MAIN SOURCE OF FINANCING OF THE PERMANENT STRUCTURES OF THE MARITIME TRANSPORT SYSTEM

Topicality. Maintaining of the permanent structures of the maritime transport system in proper condition is one of the components of the domestic seaports competitiveness. The relevance of the problem of the permanent structures financing is based on the high degree of port infrastructure deterioration and lack of investment for its development. Today in Ukraine the only source of funds for the development of permanent structures of the maritime transport system is the port dues, which are among the highest in the world. This fact negatively affects on the cargo turnover of Ukrainian seaports. So, the issue of port dues is relevant and requires a thorough study. There are discrepancies in the existing differentiation of port dues rates in Ukraine and in the world, between the number of port dues in the competitive Ukrainian ports. The disputable issue is the methodology for collecting port dues.

Aim and tasks. The purpose of the article is the theoretical and methodical development of the basic provisions of the port dues system reformation, paying attention on the financing of the permanent structures of the maritime transport system. In order to achieve this goal, it is necessary to study the essence of port dues, to develop their classification, to analyze international experience, to study the legislative regulation of the port dues system in Ukraine.

Research results. The article outlines the main schemes for collecting port dues, analyzes the types of port dues in Ukraine, identifies the main problems. The port dues classification is systematized by author. On the basis of the analysis of Administration of seaports of Ukraine revenues it was found that the share of port dues in the income structure is about 70 %. The analysis of the dynamics of cargo turnover indicators and the income from the port dues was carried out. In view of the analysis, the list of directions is proposed in order to improve the port dues system in Ukraine. It is analyzed the legislative framework and the Methodology the calculation of port dues.

Conclusions. The proposed ways of improving the mechanism of collection of port dues will improve the efficiency of functioning of the port industry in Ukraine in conditions of high competition among the Black Sea ports. Prospects for future research in the field of port dues collection are based on the economic justification of each type of port dues.

Keywords: seaports, port infrastructure, classification of the port dues, pricing policy.

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ПОРТОВІ ЗБОРИ ЯК ЄДИНЕ ДЖЕРЕЛО ФІНАНСУВАННЯ ПОСТІЙНИХ УСТРОЇВ МОРСЬКОЇ ТРАНСПОРТНОЇ СИСТЕМИ

Актуальність. Утримання постійних устроїв морської транспортної системи в належному стані є однією із складових конкурентоспроможності вітчизняних морських торговельних портів. Актуальність проблеми фінансування постійних устроїв викликана високим ступенем їх зносу та відсутністю інвестицій для розвитку. Єдиним джерелом фінансування портової інфраструктури є портові збори, які є одними з найвищих у світі, що негативно впливає на вантажообіг в українських портах. Спостерігаються розбіжності в існуючих диференціаціях ставок портових зборів в Україні та в світі, між кількістю портових зборів в конкурентних портах України. Сьогодні дискусійним питанням є методологія стягнення портових зборів. Тому доцільним є аналіз портових зборів, стягуваних в українських портах, дослідження їх сутності та визначення можливостей конкурентної тарифної політики з метою підведення теоретичного базису для змін у правовому забезпеченні механізму їх стягнення та нарахування.

Мета та завдання. Метою статті є розробка теоретичних та методичних положень щодо реформування системи портових зборів як єдиного джерела фінансування постійних устроїв морської транспортної системи. Для досягнення поставленої мети необхідно вивчити сутність портових зборів, розробити їх класифікацію, проаналізувати міжнародний досвід, вивчити законодавче регулювання формування та стягнення портових зборів в Україні.

Результати. В статті зазначено основні схеми стягнення портових зборів, проаналізовано види портових зборів в Україні, виявлені основні проблеми, розроблена класифікація портових зборів. На основі аналізу доходів Адміністрації морських портів України виявлено, що частка портових зборів в структурі доходів складає близько 70 %. Проведено аналіз динаміки показників вантажообігу та суми надходжень від портових зборів. З огляду проведеного аналізу пропонується перелік напрямків, направлених на удосконалення формування портових зборів в портах України. Проаналізовано законодавчу базу на проект Методики розрахунку ставок портових зборів.

Висновки. Запропоновані шляхи удосконалення механізму стягнення портових зборів дозволять підвищити ефективність функціонування портової галузі України в умовах жорсткої конкуренції серед портів Чорного моря. Перспективи майбутніх досліджень у сфері формування та стягнення портових зборів полягає в економічному обґрунтуванні кожного виду портових зборів.

Ключові слова: морські порти, портова інфраструктура, класифікація портових зборів, ціноутворення.

Problem statement and its connection with important scientific and practical tasks. Ukraine has a powerful port complex, which includes 13 seaports, capable of processing up to 230 million tons of cargo per year. But today it is hardly achievable task to ensure the increasing of cargo turnover volumes. There are number of reasons of this problem. First, port infrastructure deterioration is increasing (more than 70%). Secondly, there is insufficient financing for the development of permanent structures of the maritime transport system. Thirdly, there is no effective mechanism for attracting private investments for the development of seaports and protecting the rights of investors in Ukraine. As a result of these problems, Ukrainian seaports are being squeezed out of international transport services markets. It is relevant the question of competitiveness of the Ukrainian port infrastructure, which is lags behind most European states according to the criteria of quality of services.

Today in Ukraine the port dues system needs to be improved. Therefore, it is expedient to analyze the port dues collected in Ukrainian ports, to investigate their essence and to determine the possibilities of a competitive tariff policy in order to provide the theoretical basis for changes in the legal provision of the mechanism of port charges collection.

Analysis of recent publications on the problem. Oneshko S.V. and Kravchenko Y.V. [1] investigated the main directions of the improvement of port dues system in Ukraine. Popov V. [2] paid much attention to the analysis of the methodology of calculating port dues rates. Vlasova V.P., Beregova T.O., Podgrusna A.V. [3] reviewed the main concepts of the process of pricing formation in the seaports. Kivalov S.V. [4] analyzed the current Ukrainian legislation that regulates the port dues, compared the practice of collecting of the port dues in Ukraine and in foreign countries, and also proposed possible ways of improvement of the state policy of Ukraine in the field of port duties. Investigation of Zhikhareva V.V. [5] is focused on development of methodological approaches to the formation of port dues. Yudina N.I. [6] reviewed the nature of port dues and the basic schemes for collecting port dues.

Allocation of previously unsolved parts of the general problem. The analysis of scientific researches shows that not enough attention is given to the issue of the port dues as a source of financing of the permanent structures of the maritime transport system. There is still no clear mechanism for taking into account the investment component of port dues to finance the development of port infrastructure facilities.

Formulation of research objectives (problem statement). The purpose of the article is to analyze the port dues as a source of financing of the permanent structures of the maritime transport system. The main tasks of the article are to study the port dues nature theoretically, to develop the classification of the port dues, make the calculations of the income structure of the Administration of the seaports of Ukraine, make suggestions on the improvement of the port dues system.

An outline of the main results and their justification. The port dues system performed unequal functions at different historical stages. The following functions of port dues were formed under the influence of certain dialectical and historical laws: protection of national interests, trade promotion, social factors (creation of workplaces, demographic factors), more efficient use of port facilities, coverage of services costs) [6, p. 102]. Port charges have been collected from feudal times in order to cover the costs of maintaining and developing port facilities, taxes and barriers. The last two functions lost their significance

with the development of the capitalist relations. In 1709 in Liverpool the docks due was established in order to cover the costs of construction and maintenance in the operational conditions the port docks. The legislation in England secured the right of ports to collect the following port dues: the docks dues; wharfage rates that were calculated on the number of tones (weights) actually loaded or unloaded on the waterfront; town dues and at some ports - port harbor dues [4, p. 7].

The theoretical study of the nature of port dues should begin with the development of their classification by main features (Fig. 1).

Depending on the terms of collection, port dues are divided into mandatory and optional. The reason for collecting of the mandatory dues is the fact of the ship's arrival to the port, regardless of whether the client has used these or other port services or not (ship's dues, anchorage dues). Optional dues are paid by the vessel for services rendered to him in the port (pilotage dues) [3, p. 432].

Fig. 1. Port dues classification

Source: the classification is systematized by author on the base of [1, 3]

There are state, national, local port dues depending on their status. The aim of the state dues is to cover the expenses of the state in the maintenance of its ports or their separate structures (lighthouse service, pilotage services, etc.), state bodies of customs and sanitary control. The port dues rates are set at the state level and applies to all ports in the country. In the case if the costs exceed the income of the port, the state compensates the missing part from the state budget. Such scheme is implemented in Finland on the fairway harbor dues and pilotage dues, in Denmark – on the ice-breaker dues [7].

The national port dues are collected to the national fund or organization that finances the development of permanent structures of the maritime transport systems. For example, in England, a special fund was created to finance lighthouses in operational condition. The lighthouse dues are transferred to this fund. In the United States, a freight dues are collected to the federal fund, which finances dredging in ports [6, p.106].

The local port dues are implemented at each port by municipalities, port authorities and other authorities that own or manage ports. However, local dues may be different in size, but in most countries all ports of the country are subject to the same rules [1, p. 825].

Local port dues can be collected by the port administration or local authorities to the local budget. In the case if the maintenance and development of the port infrastructure is carried out by the port administration, the expenditure part of the financial plans of the administrations may require compulsory approval by the central or local authorities. Such scheme is implemented in the ports of Great Britain, Denmark, Poland, Ukraine, Russia, in the major ports of Portugal and France. If port dues are collected by to local budget, local authorities determine the level of port dues, the directions for their use and take full responsibility for the uninterrupted operation of the port. This scheme is implemented in the port of Hamburg, in some ports of Portugal and Denmark [4, p. 12].

In the international practice, port dues are divided into two groups:

- Port Dues – fees, which do not involve providing explicit services to the vessel, measured quantitatively and qualitatively.

- Port Charges – fees, the payment of which involves specific service to the vessel, measured quantitatively and qualitatively. A characteristic feature of these services is the obligation for the vessel [8, p. 19].

The port dues in the port of Hamburg (Germany) is based on this principle. According to Art. 6 of the National Law "The Duties and Fees" and Art. 14 of the City Law "The Shipping and Port Dues", port dues of the first group (Port Dues) should only partially offset the costs of maintaining port infrastructure in working conditions and the construction of port facilities. Due to this fact, the rates of the port dues of the first group in the port of Hamburg are considerably lower than in the English, French, Swedish, Finnish, and Ukrainian ports. Depending on the size of the vessel, they takes 4-25 % of the ship call to the port of Hamburg, while in ports of the listed countries they account for 40-55 %. To the second group (Port Charges) belongs the following fees: pilotage, mooring, towing charges. Their rates are much higher than in other ports. In the sum with the dues of the first group, they equate the cost of the ship call to the port of Hamburg with the cost of the ship call to other ports. In Hamburg, the right to collect port duties belongs to the local authorities for administrative actions and for the use of waterways, structures and equipment of the port of Hamburg. As the port dues are not enough to cover the costs of maintaining and developing the port infrastructure, the ports are financed from the city budget (for example, it was compensated by the 75 % of the costs of maintaining the port infrastructure in 1999).

The Elbe channel and the 70-mile fairways are not part of the Hamburg port structure, they are under government control, which refused to charge any fees in their favor by financing dredging works and navigating equipment from the state budget. This fact contributes to lower the port dues of Hamburg [7].

According to the accrual principle there are the following port dues: the port dues by the vessel capacity (in tons or cubic meters), port dues by its linear dimensions (by the length of the vessel in meters or feet, by the vessel's draft in meters, by decimeters, by feet), port dues by the commercial loading (by quantity of delivered or accepted cargo and passengers), etc. The amount of port dues also depends on the type of voyage of the ship (foreign, cabotage); forms of navigation (liner, tramp); flag of the vessel (national regime, most favored nation mode); classification of a fleet (trade, industrial, military, etc.); the kind of cargo and the number of ship calls [1, p. 826].

There is a high competition between the ports in the Black Sea region today. Port dues are an important factor affecting the attractiveness of the port and, as a consequence, its cargo turnover. Ports of Ukraine lose their competitiveness, because they collect the largest number of port dues, namely the following 7 types: ship's dues, quay dues, anchorage dues, channel dues, beacon dues, administrative dues and sanitary dues. For comparison, in the port of Constanta (Romania) there are only three such dues: port access tariff, quay tariff, Basin tariff [9].

The port dues in Ukraine are higher than the port dues of other countries of the Black Sea basin. According to researches, in 2016 the cost of a Capesize type ship call to the port of Yuzhny – is 430,000 USD (of which 326,000 USD – port dues). For comparison, a ship call of the same class to the port of Novorossiysk (Russian Federation) is 123,000 USD, to the port of Constanta (Romania) – 112.000 USD, to the port of Erdemir (Turkey) – 64,500 USD [10].

Today, the port of Constanta (Romania) is a leader in reducing of the port dues in the Black Sea region. Moreover, in Constanta, much earlier than in Ukrainian ports was introduced a simplified mode of

processing of transit cargo - transshipment. Due to the low rates of port service tariffs and the lowest port dues in the region, the port of Constanta has achieved leadership in handling of container cargoes in the Black Sea (50 % of transit containers that arrive to this port are processed in transshipment mode) [11].

Today, the high competition among the ports of the Black Sea, the ship's qualitative and quantitative characteristics improvement requires ports not only to maintain port infrastructure in the proper operating conditions, but also bring it to the current needs of the market and fleet. According to the State Property Fund of Ukraine the degree of port infrastructure deterioration is 70-90 %.

According to Art. 22 of the Law of Ukraine "The seaports of Ukraine" the financing of the hydraulic structures to maintenance their passport characteristics is on the base of the port dues collected at seaports where such hydrotechnical structures are located [12]. So, port dues are the only source of funding for permanent structures of the maritime transport systems.

Use of funds from port dues is allowed only for target purpose. Consider the directions of port dues use for permanent structures of the maritime transport system in accordance with the Procedure of accounting and using funds from port fees, approved by the Order of the Ministry of Infrastructure of Ukraine (Table 1).

Table 1

Port dues types in Ukraine and directions of their use in relation to permanent structures of the maritime transport system

Port dues types	Directions of the port dues use	
ship's dues	<ul style="list-style-type: none"> - maintenance and cleaning of the port water area and the operational water area of the berth (berths) from sediment and substances contaminating its surface and bottom; - maintenance, repair, modernization, reconstruction and construction of fencing and shore-protection buildings of the port; - performance of significant work at the port water area and operational water area of the pier (berths); - dredging works related to the maintenance, improvement, development (expansion) of the port water area and the operational water area of the pier (berths) 	<ul style="list-style-type: none"> - investments made by economic entities in strategic objects of the port infrastructure, which are objects of state ownership, in accordance with the current legislation - on compensation of the cost of underwater hydro technical facilities (channels, operational water areas of berths, etc.) that were built up from private investments before the Law of Ukraine "The Sea Ports of Ukraine" came into force and entered in the register of hydro technical structures in accordance with the procedure established by the law, transferred to the state property, in accordance with the procedure and on conditions determined by the Cabinet of Ministers of Ukraine in accordance with the current legislation
quay dues	<ul style="list-style-type: none"> - maintenance of berthing facilities and adjoining areas; - repair, modernization, reconstruction and construction of berthing structures and adjoining territories. 	
anchorage dues	<ul style="list-style-type: none"> - maintenance and servicing of internal anchorages - repair, modernization, reconstruction and creation of anchorage places 	
channel dues	<ul style="list-style-type: none"> - dredging works related to the maintenance and / or improvement of design dimensions on the channels; - maintenance, maintenance and repair of beacons, coastal and floating means of navigation equipment (TNA) in channels; - construction (purchase, manufacturing), modernization, reconstruction, repair of channels and other non-current assets used for the purposes specified in this paragraph; carrying out of measuring, trenching, dredging and dredging works in inland waterways belonging to the navigable category 	
sanitary dues	<ul style="list-style-type: none"> - repair, modernization and construction of fixed assets - maintenance, maintenance and repair of sewage treatment facilities of the port or for the direct delivery of polluting substances to the processing facilities; 	
beacon dues	<ul style="list-style-type: none"> - Acquisition, modernization, reconstruction and construction of lighthouses on inland waterways; - for the maintenance, maintenance and repair of lighthouses 	

Source: Order of the Ministry of Infrastructure of Ukraine "Procedure of the Accounting and Use of Funds from Port dues" [13]

The cost of acquiring, manufacturing, rebuilding, modernizing and building non-current assets, which can not be fully attributed to one type of port dues, is distributed among several types of port dues in accordance with the accounting policies adopted by the enterprise.

According to Art. 22 of the Law of Ukraine "The Sea Ports of Ukraine", port dues are paid to the Administration of the Sea Ports of Ukraine, except for the following dues [12]:

- quay dues are collected in favor of the owner of the berth, and if the berth is in use – in favor of the user;

- channel dues are collected in favor of the owner of the channel;

- the ship's dues are collected in favor of the user of the port water area, as well as the owner of the operational water area of the berth (berths) constructed before the entry into force of the Law of Ukraine "On Sea Ports of Ukraine";

- lighthouse tax collection is in favor of a state institution that organizes and performs navigational and hydrographic navigation services.

Analysis of the structure of net income of the Administration of the Sea Ports of Ukraine [14] shows that the largest share belongs to the article "port dues" and is about 70 % (Table 2).

Table 2

The structure of net income of the Administration of the Sea Ports of Ukraine

The article of income	2014		2015		2016		2017	
	thousand UAH	%	thousand UAH	%	thousand UAH	%	thousand UAH	%
Port dues	2 706 684	67,6	4 918 959	72,2	4 946 145	67,8	5 312 526	68,5
Pilotage services	413 266	10,3	673 173	9,9	734 877	10,1	779 870	10,0
Services of regulating the ships movement	149 577	3,7	237 403	3,5	248 352	3,4	263 519	3,4
Services for providing port operator access to the berth	-	0,0	-	0,0	757 378	10,4	765 064	9,9
Ensuring icebreaking works	21 497	0,5	25 985	0,4	19 666	0,3	62 769	0,8
Income from using berths for bulk cargo handling	130 078	3,3	183 338	2,7	54 186	0,7	49 694	0,6
Services of divisions	310 703	7,8	436 898	6,4	478 362	6,6	441 783	5,7
Fleet services	50 184	1,3	64 263	0,9	58 638	0,8	85 610	1,1
Total net income	4 002 291	100,0	6 810 663	100,0	7 297 604	100,0	7 760 835	100,0

Source: the analysis performed by author on the basis of [14]

Table 3

Analysis of the dynamics of indicators

The indicators	Year	Year	Dynamic Indicators		Year	Dynamic Indicators	
	2014	2015	growth rate, %	rate of increase, %	2016	growth rate, %	rate of increase, %
Cargo turnover, million tons	142,79	144,65	101,30	1,30	131,99	91,25	-8,75
Volume of turnover from which income was received (million tons)	128,59	127,09	98,83	-1,17	128,03	100,74	0,74
Exchange rate (USD)	11,90	21,70	182,35	82,35	24,10	111,06	11,06
Income received in foreign currency (USD million)	276,88	273,38	98,74	-1,26	273,57	100,07	0,07
Average income rate (USD million / million tons)	2,15	2,15	99,91	-0,09	2,14	99,33	-0,67
Income received in the national currency (UAH million)	3294,87	5932,43	180,05	80,05	6593,04	111,14	11,14
Port dues (UAH million)	2706,68	4918,96	181,73	81,73	4946,15	100,55	0,55

Source: the analysis performed by author on the base of [14]

On the base of the analyses of the dynamics of cargo turnover and income from port dues the following conclusions can be made. The volume of cargo turnover from which income was received decreased by 1.17 % in 2015 compared to 2014 which resulted in a decrease in income received in foreign currency (USD million) by 1.26 %. In 2016 compared to 2015 the volume of cargo turnover from which

income was received increased by 0.74 %, therefore income received in foreign currency (USD million) increased by 0.07 %. But due to the significant fluctuation of the exchange rate, the income received in the national currency (UAH million) in 2015 compared with 2014 increased by 80.05 %, and in 2016, compared with 2015, increased by 11.14 %. Income from port dues in the national currency in 2015 compared with 2014 increased by 81.73 %, and in 2016, compared to 2015, is increased by 0.55 %. This study shows the interconnection and interdependence between cargo turnover and port dues.

Fig. 2. The dynamics of indicators of income from port dues and cargo turnover in national currency
Source: the analysis performed by author on the base of [14]

Ukraine has one of the highest rates of port dues. According to the project International Seaborne Market, the rates of the port dues in Ukraine are 2-3 times higher than similar dues in other ports of the world [2].

The Strategy of the Development of Seaports of Ukraine for the period up to 2038, approved by the Cabinet of Ministers of Ukraine [15] identified the implementation of competitive tariff policy as one of the main conditions for the development of the port industry.

The preparation of the port dues reform started immediately after the adoption of the Law "The Sea Ports of Ukraine". The draft of the Methodology of calculating of the port dues rates is based on the concept of "cost +". According to the clause 3.2. of the Methodology the calculation of port dues is based on three main components: the coverage of operating costs, aimed to maintain and service the infrastructure facilities; funds for recreating of the port infrastructure; profit (investment) component is for further development of the port infrastructure [16].

Consequently, the port dues rate is the sum of two components: basic and investment. Basic is the current infrastructure maintenance cost. The investment component is the development costs that are included in the calculation of a specific port fee based on the investment program of a separate seaport.

According to V.Popov, the development of the Methodology should take into account the peculiarities of the formation of the port dues rates taken abroad. In international practice, the basis of calculating the port dues rates is the cost of services and a certain profit on the development of production. Formulas for the port dues rates calculation should take into account the individual features and the conditions of collecting each kind of port dues. The cost of services of each kind of port dues (excluding administrative port dues) is determined on the base of the size of the corresponding economically justified port costs for maintaining the port infrastructure and gross tonnage of vessels (GT), which takes into account the conditions for charging each kind of port dues. Therefore, the base for reducing the high level of port dues in domestic seaports can

be a significant increase in the volumes of transshipment of cargoes and related ship turnover, which, unfortunately, can not be achieved at present [2].

The Administration of the Sea Ports of Ukraine is a profitable enterprise and one of the largest taxpayers in the state. In addition, the Administration of the Sea Ports of Ukraine, like other state-owned enterprises, pays the state a "dividend" - part of the profit, which was 75 % in 2017, and 50 % since 2018. However, the Ministry of Finance plans to increase the rate of deduction of the Administration's of the Sea Ports of Ukraine net income to the state budget from 50 % to 90 % [17].

In European countries port infrastructure development is funded through trust funds, with the support of the government. From 2000 till 2013, the investments to the transport infrastructure of the European Union amounted 6.8 billion euros. And for the period 2014-2020, the European Commission plans to invest to the transport projects 6.7 billion euros. Also, port dues are not the subject to taxation in Europe. They are not considered as a way of the budget replenishment, they are the source of funds for the development of the seaport infrastructure that is necessary for the national economy and foreign trade [18].

As noted above, the income of the Administration of the Sea Ports of Ukraine consists of the port dues by 70 %. In this context arises the question whether the transfer of part of the profit of the Administration of the Sea Ports of Ukraine to the state budget corresponds to the principle of the targeted use of port dues. There is a risk that the investment component of the port dues becomes only the source of state budget filling instead of the development of permanent structures of the maritime transport system. In such situation the state investments are needed for the development of the port infrastructure, but because of a significant deficit of the state budget there is the low probability of such investments. The role of port dues as a source of maintenance and development of permanent structures of the maritime transport system is schematically demonstrated on the Fig. 3.

Fig. 3. The role of the port dues as a source of maintenance and development of permanent structures of the maritime transport system

Source: the classification is systematized by author

Thus, the own funds of the Administration of the Sea Ports of Ukraine are not enough to maintain and develop permanent structures. But even in those cases when the Administration of the Sea Ports of Ukraine is ready to finance the maintenance and modernization of the port infrastructure, practically the implementation of projects is accompanied by a number of difficulties, because the spending of state-owned enterprises is possible only on the basis of financial plans. The financial plans of the large state-owned enterprises are agreed by the Ministry of Finance, the Ministry of Economy, the Ministry of Infrastructure and are approved by the Cabinet of Ministers of Ukraine [19].

Consequently, there are the main recommendations and proposals for the formation and collection of port dues as the main source of maintenance and development of permanent structures of the maritime transport system.

One of the most important steps is the formation of a legislative framework, revision and approval of the Methodology of calculating of the port dues rates. Over the years, international experts from the World Bank, International Finance Corporation, European Business Association etc. have been involved in the process of Methodology development, but none of the projects has been approved by the Ministry of Infrastructure. I consider it is necessary to involve the experts in maritime transport and scholars of profile institutions to the preparation of the Methodology draft in regard of port pricing.

The port dues level should be economically feasible. The port dues rate should be based on the actual cost of operating the port infrastructure concerned. This requires an analysis of the economic indicators of the production activities of seaports, analysis of the cost of port services and works. It is expedient to keep the accounting of income received by the Administration of the Sea Ports of Ukraine for each kind of the port dues and their corresponding expenses.

Such accounting has become widespread in foreign ports due to the creation of "spending" or "cost" centers for each type of work, operations and services. The introduction of such an account in domestic seaports will allow to automatize all economic indicators calculations for each kind of the port dues in term of assessing the effectiveness of providing the services by the port [2].

In the process of forming port dues rates it is important to take into account the principle of obtaining of reasonable profit taking into account the investment component, the size of which should be sufficient for the development of port infrastructure. In foreign ports, as a rule, the basic level of tariffs is not more than 10 % of the rate of profit [5, p. 244].

The port attractiveness for shipowners is determined not so much by the port dues rates but by the flexibility of the system of their collection. Therefore, the Methodology should provide different types of discounts and privileges to the vessels, depending on the purpose of the ship call to the port, the line service of the ships, the degree of their loading, the number of ship calls to the port, the type of the voyage and other factors. To encourage cruise shipping, it is proposed to set discounts to the passenger ships for certain types of port dues during a high tourist season. For the development of coastal shipping it is necessary to establish a stimulus coefficient to the port dues rates [5, p. 245].

It is important to achieve the target use of port dues, as it is prescribed by the Law of Ukraine "The Sea Ports of Ukraine".

Taking into account the level of permanent structures deterioration, the state investments are necessary, as it is impossible to upgrade port infrastructure only on the base of the port dues. Implementation of investment projects for the development of port infrastructure will increase the volume of transshipment, cargo turnover and will strengthen the competitiveness of the national transport system as a whole.

Conclusions and perspectives of further research. On the basis of this research, proposals were made to improve the system of the port dues formation and collection in order to develop permanent structures of the maritime transport system: formation of a legislative framework; involvement of the specialists in maritime transport in the field of port pricing and scholars of profile institutions to the process of the Methodology of calculating of the port dues rates development; to ensure the economic effectiveness of the port dues; to provide port dues development according to the principle of obtaining of reasonable profit; to ensure the flexibility of the port dues system; to provide the target use of port dues; to ensure the state investment to the port infrastructure development. The practical implementation of the proposed directions will make the ports of Ukraine more competitive. Further research requires an economic justification for each type of port dues.

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