

ANALYSIS OF MARITIME CONTAINER TRAFFIC IN THE PORTS OF THE BLACK SEA BASIN

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Abstract: *Almost 70 years since the first standardized containers were handled and this mode of transport began to take shape worldwide, container shipping is on an upward slope in terms of its role in international maritime trade. Also, the demand for the development of this means of transport has led to the need to design specialized ships with increasingly larger capacities, in 2022 the threshold of 24,000 TEUs was exceeded (Twenty-foot Equivalent Unit – TEU is foremost used to describe a twenty-foot shipping container). Hence the implementation of changes in the maritime field, highlighting only three issues of this kind: the vision for the development of multimodal transport, the configuration of terminals specialized in handling containers (SCT – Specialized Container Terminal), the expansion of the limits regarding the width of some key locks for trade between the Pacific and Atlantic ports and not only. The paper analyzes the aspects regarding the development of maritime container transport in close connection with the situation regarding container traffic in the ports of the Black Sea basin. The changes that occurred in each Black Sea container handling port during the COVID-19 pandemic, as well as those caused by the outbreak of the conflict in Ukraine (transport routes, quantities, current and future needs), are analyzed and presented.*

Keywords: *Black Sea, container terminal, multimodal transport, port, maritime industry.*

1. INTRODUCTION

The history of containerized transport took shape after the Second World War, more precisely in the 1950s, when the American entrepreneur Malcolm McLean realized that by standardizing the containers already used at the time, he could significantly reduce transport costs and times of operation required for loading and unloading containers on ships. Initially, this idea was not really encouraged by other ship owners, and Malcolm McLean was forced to establish his own company, called Sea-Land Inc. On April 26, 1956, the "Ideal X" was the first ship to carry 58 containers from the Port of Newark to the Port of Houston. After about a decade, the "Fairland" was the first container ship to berth in Europe, specifically on German soil at Bremer Überseehafen [1]. In recent decades, with the increasing globalization of economic interdependencies - both in industry and retail, with an increasing division of labor oriented toward the production process - logistics has become a factor key to the competitiveness of an economy. An essential basis for these developments is profound conceptual and technical improvements in transport logistics, which result in reduced transport time and costs. Not least because of the increase in services offered in the transport markets, the demand for these services is increasing. This means that the underlying developments induce each other to some extent, leading to significant acceleration of change [2]. An essential point for new technical and structural developments in transport logistics is the growth of containerization, while general cargo has lost its importance. For example, around 80% of the general cargo handled in the ports on the southern coast of the North Sea: Rotterdam, Antwerp and Bremerhaven, were already containerized in 2005, and the port of Hamburg had a 96.4% containerization rate [3]. In terms of the globalization of trade flows, maritime container terminals (SCTs) and (deep sea) container shipping play a key role in many multimodal transport chains [4]. In many trade relationships, shipping also leads to a quasi-monopolistic position, as alternative models are not suitable based on capacity restrictions and cost considerations (such as air cargo transport). Global developments in container shipping can essentially be described by two key indicators: the evolution of the size of container ships and the growth of container throughput (in millions of TEU - twenty-foot equivalent unit) at the world's most important SCT, the first being the port of Shanghai in China with a traffic of 47 million TEU in 2022 and a growth of between 7% and 10% forecast for 2023. However, it is necessary that the port infrastructure and the technical equipment of the container terminals be adapted to the size of the ships of containers to

be operated and the volumes to be handled at each port entry [5]. In 2022, Ever Alot – a container ship owned by Evergreen Marine – was launched and prepared to operate on routes from China to Europe. Ever Alot is 399.99 meters long, 61.5 meters wide, can carry 24,004 TEUs, can sail at 22.6 knots and is operated by a crew of approximately twenty-five sailors.

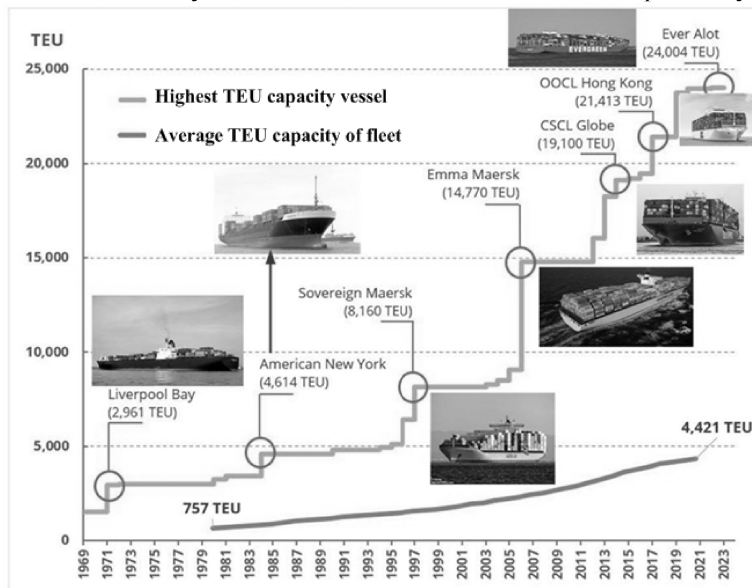


Figure 1: Evolution of the capacity of container ships and the average capacity of the fleet in TEU.

Source: adapted from Allyn International, The evolution of container ships and their sizes, available from: <https://logisticselearning.com/largest-container-ships/>, accessed: 2023-15-02.

As shown in Figure 1, there are several key leaps in the evolution of the size of container ships. These are generally related to technological developments in shipbuilding, infrastructure changes such as port sizes or channel widths, as well as the development of international trade and the strategies of major shipping lines. For example, in view of the development of increasingly large container ships on the Asia-Europe route, in 2016, after a 10-year effort, new locks were installed on the Panama Canal (a key passage for trade between Pacific and Atlantic ports), thus the limits on the maximum width of a ship increased from 32.31 m to 51.25 m, which led to the development of larger container ships called New-Panamax or Neo-Panamax with a capacity of up to 14,000 TEUs, thus also having a direct and significant impact on the average capacity of the container fleet. With these leaps in the size and carrying capacity of container ships, the daily operating expenses of a TEU have been on a downward curve. As for the main area of this study, namely the Black Sea basin, it represents a crucial area from a strategic point of view because it is a confluence area of several independent actors that give rise to strong economic, political and social forces over this region and, of course, affect the smooth running of trade in goods between neighboring states, but also exports to other areas such as Asia, Africa, Europe.

The maritime traffic of goods from the Black Sea basin represents 3% of the global maritime trade compared to the North Sea area, which represents a percentage of 17%. The importance of the Black Sea basin is based on its size and geographic location as well as its resource base. The Black Sea ports container handling system is among the systems with the highest growth in handling cargo flows worldwide recently.

This paper analyzes the trend of maritime container traffic at a global level, but especially the situation of this mode of transport of goods in the ports along the Black Sea is analyzed through the lens of two important events that still have an impact on the smooth running of maritime transport in this area and namely: the COVID-19 pandemic as well as the invasion of Ukraine.

Therefore, the aim of this paper is to identify the changes that have appeared recently in container traffic in the Black Sea basin, to analyze the competitiveness of container ports, as well as the statistical and organizational changes that have appeared in the last period within the main ports of the Black Sea.

2. RESEARCH METHODOLOGY

The research methodology of this work is based on the processing of official data from national and international sources (profile sites of hub ports in the Black Sea basin, UNCTAD - United Nations Conference on Trade and Development, Drewry - World Container Statistics, Eurostat - statistic explained, Statista, Container Statistics) concerning the transport of containerized goods at a global level and predominantly in the Black Sea basin. These statistical data were analyzed comparatively, problematized, using the methods of deductive reasoning and by analogy to create an epic thread of the changes that took place in the last year in the traffic of containerized goods in the Black Sea basin.

2.1. Brief analysis of global containerized trade

According to UNCTAD's (United Nations Conference on Trade and Development) latest review of maritime transport, in 2021, containerized cargo trade had a good evolution, with demand being boosted by consumer goods, especially from East Asia, with the end of global restrictions following the COVID-19 pandemic. The percentage of 1.3% lost in 2020 was recovered in 2021, reaching a volume of over 130 million TEU, thanks to the improvement of global

economic conditions, the lifting of restrictions on the purchase of consumer goods from any part of the world, as well as increasing long-distance orders through e-commerce. In 2021, the top five container exporting areas, China, the United States, Vietnam, the Republic of Korea and Japan, accounted for approximately 50% of global container traffic, with China leading the way with approximately 30%. Approximately half of the containerized trade was carried out on the main east-west transport route, between Asia, Europe and the United States of America, the other directions being approximately equal. Due to the volume increases recorded and the waves of COVID-19 that did not stop even during 2021, worldwide containerized transport faced many difficulties caused in particular by logistical blockages, the lack of container storage and handling capacities, the insufficiency of the force of work in ports, unprecedented supply constraints, thus creating an unprecedented crisis with carriers recording massive losses, and many areas worldwide experienced a supply crisis [7].

At the global level, the container traffic trend reached a maximum growth of 8.7% in the third quarter of 2021, being between two minimums, namely: -2.3% recorded in the third quarter of 2020 due to the COVID-19 pandemic, we all know it had a worldwide impact and another low of -0.2% recorded in the first part of 2023. This recorded decrease in container traffic is largely due to the slowdown in container traffic in North America and Europe. In North America, ports have registered a decrease of 5.6% in the last year, and the container market in the European Union is also on a downward slope from the end of 2021, the situation being amplified by the beginning of the conflict in Ukraine, the decrease materializing in a percentage of -7.8% within a year of reaching the maximum.

The only region that recorded an increase in the rate of container traffic from May 2022 to April 2023 was China, in April registering a monthly increase of 4%, the global monthly rate for April 2023 being - 0.3%.

Regarding the forecast of container traffic worldwide, the situation is gratifying because in the coming years the forecast is for an upward growth trend with an almost stable trend of 1% in the year 2023, and starting from the year 2024, an average growth of 3.5 % every year until 2027, with significant increases predicted for North America, being positive feelings about the US market, but also the European area.

This situation of slowing demand for certain areas globally and rising transport costs will continue to delay projects to modernize and expand container terminals. Earnings per unit have fallen sharply as container storage costs in terminals have reached pre-Covid-19 levels. Terminal operators also expect more cost control measures to be implemented by 2023, although throughout the year they will continue to be under great financial pressure, however, expectations are positive with growth prospects for the year 2024 much stronger [8].

2.2. Analysis of maritime container traffic in the Black Sea basin area

In addition to its geopolitical, economic, social and military importance, the Black Sea has an extremely important role in the development of maritime trade, being a connecting bridge between Europe and Asia. The Black Sea is a semi-enclosed sea, that is connected to the Aegean Sea and the Mediterranean Sea through the Bosphorus (Istanbul), the Marmara Sea, and the Dardanelles (Çanakkale).

The Black Sea coastline stretches for a distance of 4075 km, with 6 riparian countries, from east to west: Ukraine (36.6%), Romania (6%), Bulgaria (6.7%), the Republic of Türkiye (33.2%), Georgia (8.1%), Russian Federation (9.4%), as shown in Figure 2, together with the most important international shipping ports [9].

These 6 riparian countries in the Black Sea basin add up to 56 ports of various sizes offering services on a national and international scale, and finally highlight the wealth of the area in terms of maritime trade. Of the 56 ports in the Black Sea basin, 16 are in Ukraine, 8 in Romania, 7 in Bulgaria, 15 in Republic of Türkiye, 4 in Georgia and 6 in the Russian Federation [10].

Each country has its hub ports with the role of collecting goods from national and smaller ports, thus covering the related hinterland area and sending them on the international transport routes declared by each individual company, there are over 20 container shipping companies connecting ports in the Black Sea basin with ports in the Mediterranean, Europe, America, North Africa, the Middle East, the Far East and of course between Black Sea ports.

Also in figure 2 it can be seen that for the ports in the Black Sea basin, the Turkish ports in the Gulf of Izmit and the Ambarli area play the role of hub ports for containerized trade in this area and of course the opening to other transport routes is much greater.

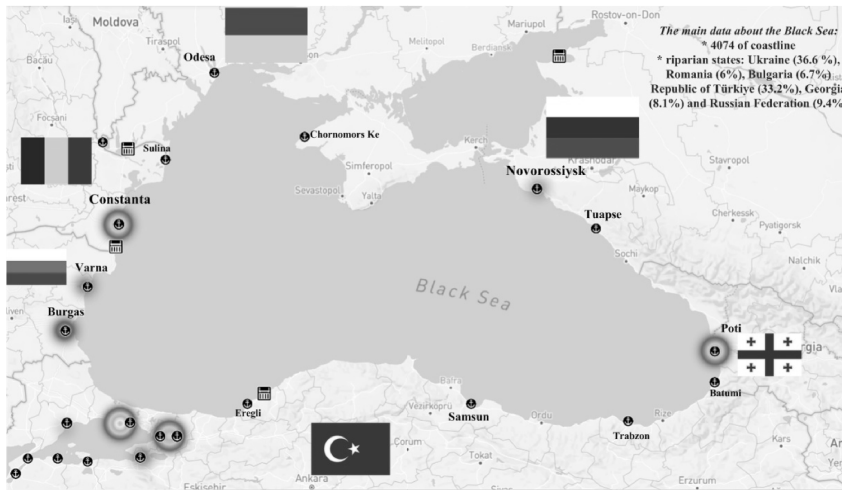


Figure 2: Black Sea basin coastal states and the main ports for containerized trade.

Source: adapted from AIS tracking of container vessel, Available from: <https://www.econdb.com/maritime/map/>, accessed: 2023-10-05.

In order to understand the wealth and importance of these ports in the Black Sea basin in terms of maritime trade, their performance analysis should be considered, the main ports for container traffic in the Black Sea basin being presented in table 1.

Table 1: Main port performance analysis for container traffic in the Black Sea basin.

Port	Container quay length (m)	Container quay max. depth (m)	Handling equipment (Cranes No.)	Total storage area (m ²)	Container handling capacity (TEU)	The amount of shipping lines	Port capacity (Mtpa [*])
Constanta	1490	14.5	8	65.000	1.200.000	10	100
Varna	838	11	51	62.630	600.000	8	18
Burgas	365	9.5	10	31.350	250.000	7	15
Samsun	776	10	7	50.000	300.000	12	23
Trabzon	420	10	10	13.000	200.000	2	14
Poti	460	9.5	20	69.000	220.000	8	60
Novorossiysk	574	13	18	62.200	1.000.000	5	200
Odesa	330	12	55	34.000	800.000	11	50

*Mtpa = Millions of tons per annum.

Source: adapted from multiple sources described in references section [12-20] : Boşneagu et al., 2021; Görçün, 2020; Petar, 2022 and web pages: Constanta port; DP World Samsun; Port International; OOCL Bulgaria; Socep port operator and World port source.

Following a performance analysis of the main container handling ports in the Black Sea basin, it appears that the top two ports with the highest handling capacity are Constanta, Romania and the port of Novorossiysk in the Russian Federation, although Ukraine and Türkiye are most of ports opening to the Black Sea.

2.2.1. Maritime container traffic in the ports of the Black Sea basin in numbers

In the last 3 years, the most pressing problems for maritime traffic and implicitly for the transport of containers were the COVID-19 pandemic and the invasion of Ukraine with worldwide effects, but especially for the area of the Black Sea basin.



Figure 3a: Main cargo ships in the Black Sea on 01.JUN.2023 at 19:34 UTC.

Source: Marine traffic, Density maps, Available from: <https://www.marinetraffic.com/>,



Figure 3b: Only container ships in the Black Sea on 06.JUN.2023 at 19:32 UTC.

Source: Marine traffic, Density maps, Available from: <https://www.marinetraffic.com/>,

The commercial flows of containers have changed significantly in the Black Sea, with Ukrainian ports being closed and later only the port of Odesa being reopened for the implementation of the "Black Sea Grain Initiative" program regarding the export of grain to areas in Türkiye, North Africa and beyond. these situations put a lot of pressure mainly on the port of Constanța for shipping goods from Ukraine or taking over those destined for Ukraine [22, 23].

Briefly analyzing Figures 3a and 3b, it can be seen that, at least in the last period, the presence of port container ships has reduced, representing a very small proportion of all cargo ships, and they have reoriented toward the safest routes at the present moment from the point of view of the existing danger of mines in the Black Sea. It can be observed that the most frequent routes remained the Istanbul Strait - Constanta and return as well as the Istanbul Strait - Novorossisk and return, for the pickup of goods, but also the supply for larger areas, further entering the hinterland logistics.

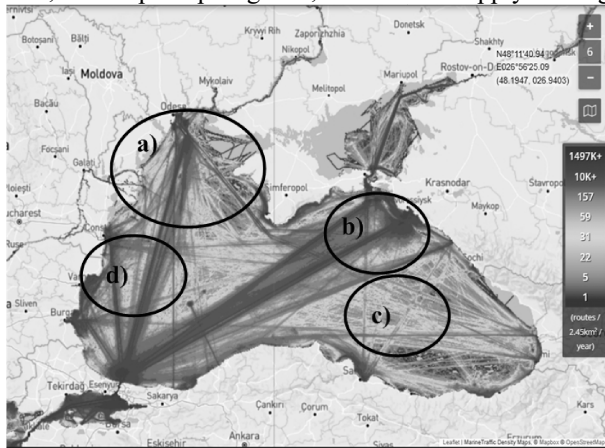


Figure 4a: Maritime traffic density in the Black Sea basin for 2021.

Source: Marine traffic, Density maps, Available from: <https://www.marinetraffic.com/>, accessed:2023-01-06.

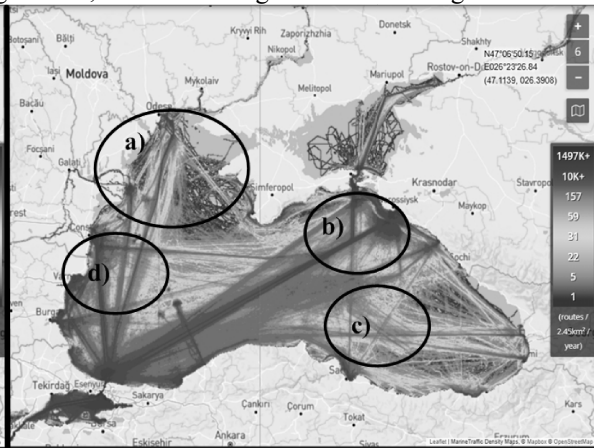


Figure 4b: Maritime traffic density in the Black Sea basin for 2022.

Source: Marine traffic, Density maps, Available from: <https://www.marinetraffic.com/>, accessed:2023-01-06.

Regarding the comparative analysis of figures 4a and 4b, a lot of changes can be observed regarding the traffic of goods of all types through the Black Sea. Thus, the changes in 4 large areas are analyzed, changes due to the values of the COVID-19 pandemic, but especially to the conflict that broke out in Ukraine. 4 geographical areas most visibly affected in the last year were chosen, as follows:

- i. in area a), the northwestern part of the Black Sea, represents the area where traffic is most affected for maritime transport, thus it can be seen that traffic has significantly reduced, only the humanitarian corridor route for grain traffic remains in force, a few routes to Romanian ports as well as to other areas that operated normally in the first part of 2022, until the outbreak of the conflict in Ukraine at the end of February 2022. Also, this area represents an increased risk for the safety of all means of maritime transport because there is an increased risk of the existence of sea mines, which can lead to catastrophic events for the ship, cargo and crew [24];
- ii. in area b), the maritime traffic has intensified toward the port of Novorossisk, remaining the main port on the Black Sea for Russia, and the other routes to the Kerch Strait or to the ports of Tuapse and Sochi have lost traffic density;
- iii. in zone c), the routes between Georgia and Russia were reduced to a minimum, and the routes to the ports of Georgia, Poti and Batumi increased in intensity. Uncertain routes where ships are adrift have appeared in this area, due to the rather small risk of the presence of sea mines;
- iv. in zone d), the western part of the Black Sea and the most disputed part lately, it can be said that it has intensified quite a lot for the routes from Romanian and Bulgarian ports, these being also the connection ports for goods from and for the area Ukraine, road and rail routes, as well as river routes, being widely used to transport goods from and to these ports. Unfortunately, certain routes in this area were eliminated in the last year.

As a consequence of all these changes, container traffic in the Black Sea decreased considerably in 2022, registering a sudden drop in loaded volumes by 28.4% (approximately 690,000 TEU). Thus, containerized traffic for shipped goods decreased by 25%, and containerized export traffic decreased by 33%. Although this decrease in regional turnover was recorded, the volume of loaded containers was increasing for container ports in Romania and Georgia.

Routes to Ukrainian container ports were the main container routes from the Black Sea, with a traffic of over 1 million containers annually, and this died out with the outbreak of the conflict in Ukraine, at the end of February 2022, all terminals needed to stop line transport of containers without a predictable horizon for the resumption of activity. As a continuation of the "Grain Deal", the "Black Sea Container Initiative" was proposed by a team of Ukrainian experts. This new agreement would allow the controlled transport of containers to the ports of Ukraine departing from the connecting ports of Türkiye and in particular for the transport of food products in containers, which means 100,000 TEU in 2021. This program is quite difficult to put into practice because it requires agreement between the parties involved, political will and also depends on the situation of the conflict in Ukraine. The outbreak of the conflict in Ukraine had a devastating impact on container traffic, because at the time when a recovery was predicted after the COVID-19

pandemic, this conflict shattered any hope of a return to normal. Container traffic for Ukraine decreased 6 times, being currently limited to around 10,000 TEU, but handled with the help of foreign ports such as Romania or Poland and taken over by means of other modes of transport. In 2022, the cost of shipping a container across the ocean for Ukraine has increased by up to 25%, and the delivery time has increased by 300%, which represents a difficult time for the entire country to manage.



Figure 5: Comparison between the years 2021 and 2022 regarding the traffic of containers loaded through the Black Sea ports. Source: adapted from: Vesselovski et al., Invasion of Ukraine caused steep drop in Black Sea container traffic, Available from: <https://maritime-executive.com/editorials/invasion-of-ukraine-caused-steep-drop-in-black-sea-container-traffic>, accessed:2023-27-05.

As mentioned above and in accordance with figure 5, the loss for Ukraine in terms of container transport is enormous. It can be observed that the market share for the transport of cargo containers decreased from 34% in 2021 for Ukraine to 7% in 2022, and the increases were recorded especially for the ports of Romania and Georgia.

Of course, in such conditions, alternative transport solutions for containers are sought, and one solution would be the use of Ukrainian ports on the Danube river, especially Ismail and Reni ports. Although these ports were not designed for such operations, the operators had to adapt and thus respond to the transport requests in the country. It is a rather cumbersome solution to implement because it is necessary to identify collaborators, ships and barges specialized in this type of transport and compatible with the limitations regarding transport on the Danube. An immense problem is identified in the summer months when the water levels on the Danube River drop considerably, and the draft limitation greatly restricts this transport solution to and from Ukraine.

As a consequence of the geopolitical situation in the north-west of the Black Sea, in 2022 the port of Constanta in Romania had a remarkable growth simultaneously with a capacity to adapt to the new conditions in a short time. The Port of Constanța has proven that it represents a vital connecting port for container traffic in this area, recording in 2022 a 15% increase in market share in terms of container transport in the Black Sea basin.

The DP World container terminal in the port of Constanta ranked first in terms of the increase in the total turnover of containers in the Black Sea basin, handling 27% of the total regional containers in 2022.

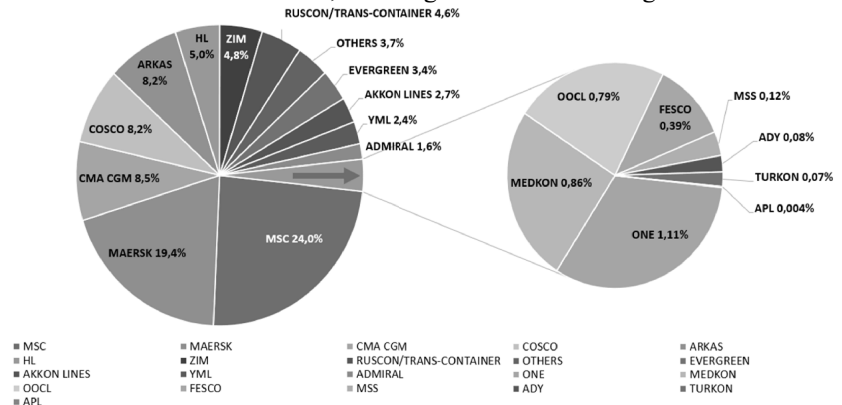


Figure 6: Operators of loaded container lines from the Black Sea basin for 2022. Source: adapted from: Vesselovski et al., Invasion of Ukraine caused steep drop in Black Sea container traffic, Available from: <https://maritime-executive.com/editorials/invasion-of-ukraine-caused-steep-drop-in-black-sea-container-traffic>, accessed:2023-27-05.

Figure 6, shows that the 2M alliance formed by Maersk and MSC companies is the majority for container traffic in the Black Sea basin, they control 40% of the total container traffic loaded in the port of Constanța, as well as 43.4% of the containers loaded in all ports in the Black Sea basin in 2022 [26]. „Maersk and MSC have been quite proactive in establishing alternative container routes to and from Ukraine...”, pointed out Daniil Melnychenko, data analyst of Informall BG (the leading cargo analytical bureau in the Black Sea region), who went on to explain, „2M Alliance substantial presence on the Ukrainian market as well as a well-established network of domestic transport stakeholders allowed them to develop new container services from scratch” [27]. Both companies recorded increases in 2022, compared to the previous year, MSC 2.96%, and Maersk 3.79%, which contributed to the rise in the overall ranking by as many one place and thus occupying the first two places in the ranking of container transport companies for the Black Sea basin. The COSCO company registered a decrease of 4.90% in the year 2022, which caused the change of the leading place with the number 4 place in the general ranking of container traffic companies in the Black Sea for the year

2022. Bulgarian container ports enjoy special importance from the viewpoint of geographical positioning for completing logistics chains. Even if in 2022, the port of Varna recorded an increase of only 0.8% for container traffic, they continue to provide stability in supply chains and an attractive market for companies that want to develop alternative methods for container traffic, until the situation of the conflict in Ukraine ends.

Container ports in Georgia faced an expansion in 2022, occupying a leading place, with a growth of 22%, the highest in the Black Sea basin. This increase was due to changes in container routes, due to the sanctions applied to Russia, Georgia being seen as an East-West corridor for goods from China, given also a supply corridor for goods from the West for Central Asian countries (Kazakhstan, Uzbekistan, Turkmenistan). However, Georgia still needs to put a lot of things in order from a political and economic point of view in order to gain confidence for the containerized line transport of containers through Georgian ports [28]. In 2022, Russian container ports underwent substantial changes, as operators had to reorient themselves due to the geopolitical situation in the area. Thus, the port of Novorossiysk recorded the largest decrease in turnover for container transport, of 17% and a decrease of 30% for the export segment for all Russian ports in 2022. Every crisis also has an opportunity, for handling containers local, Turkish and even Chinese companies have entered the Russian market, registering substantial increases in market shares, thus, the Russian Black Sea container market is continuously dynamic.

3. RESULTS

At the beginning of 2023, worldwide containerized transport was slightly destabilized by the slowdown of container flows in North America and Europe, facing a stagnation in the growth of containerized cargo traffic, but the forecast for the end of 2023 is gratifying, and the growth average for the next 4 years being 3.5% annually with the remediation of many problems in the two mentioned areas. China is the world leader in containerized transport, representing 30% of the total traffic, 10 times the container traffic of the Black Sea, and the main transport route remains east-west, between Asia, Europe and the United States of America. The problems caused by the Covid - 19 pandemic still affect global containerized transport, but the application of measures continues, and the expectations for the year 2024 are positive. As for containerized transport from the Black Sea, it is a very rich one, representing a strategic importance both for the 6 riparian countries and for the maritime transport of goods between Europe and Asia. The situation of commercial container flows in the Black Sea has changed drastically following the problems caused by the Covid-19 pandemic, but especially since the beginning of the conflict in Ukraine, when the container terminals in Ukraine were closed and most of the container terminals in the Russian area they suffered.

The main effort to meet the needs of containerized transport in the Black Sea basin fell to the container terminals in Romania and Georgia, which registered significant increases in market share and importance in the handling of regional containers in order to be able to create new logistics chains, especially to the affected areas.

4. DISCUSSIONS

The evolution of containerized transport, from a historical point of view, has constantly recorded jumps in volume and efficiency of transport, which involved the need for the development of adjacent sectors in order to develop, this means becoming very accepted by port operators, but also by the environment business for the exchange of goods worldwide.

Each country bordering the Black Sea basin has hub ports where goods are collected to depart on international transport routes and which in turn distribute the arrived containerized goods, the interest in this area being for more than 20 transport companies.

The comparative analysis of the areas in the Black Sea between 2021 and 2022 indicates major changes in terms of international transport routes, over the demand of certain ports that had to take on certain tasks and develop their infrastructure, still coming with a decrease of 33 % of containerized traffic in this area.

5. CONCLUSIONS

The containerized transport of goods is on an upward slope in terms of the maritime transport of goods being an increasingly appreciated means even at the expense of general goods, especially since all container terminals worldwide have forecast increases for the coming years, and transport ships reaching transport capacities of over 24,000 TEUs.

Maritime container traffic in the Black Sea basin has undergone significant changes recently, mainly due to the effects of the COVID-19 pandemic and especially the conflict in Ukraine. With this consequence, from the outbreak of the conflict in Ukraine until now, the routes for container transport have been reorganized, new solutions have been sought, the flows of containerized goods through Russian ports have decreased greatly, and container traffic in Ukrainian ports has been almost zero. For the Black Sea basin, the port of Constanta in Romania is the main actor regarding the flow of containerized goods, through the DP Word terminal in the Agigea area, in the last year facing the problems of taking over most of the flow of containerized goods to and from Ukraine. The alternative solutions were to transport the goods from and to Ukraine in/from the port of Constanța by means of other means of transport (road, rail), and the port of Constanța became the hub port for the further transport of goods. The flows of containerized goods were increasing in the Bulgarian and Turkish ports, but especially in the Georgian ones, which represent a corridor for the goods from the China area destined for the western countries, but also for the goods from the west destined for the countries of Central Asia .

The situation of the companies involved in container traffic in the Black Sea has changed significantly in the last year, the 2M alliance, formed by the companies Maersk and MSC, occupies the leading positions with a market share of almost half of the containers transported through the Black Sea basin. The ports that have registered growth in the last year have already initiated investment projects for the optimization of port facilities or even the construction of new terminals to satisfy market demands, especially in the port of Constanța, the Georgian and Bulgarian ports, bearing in mind the uncertainty of the horizon time to end

the conflict in Ukraine. The changes that occurred in the last year in the traffic of containers in the Black Sea basin will return to the normal when the conflict in Ukraine ends, and the safety of navigation in the north-west area of the Black Sea will be guaranteed, until then the battles will continue to create new opportunities for regional container operators.

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