

Comparative Analysis of the Current State of Maritime Transport in Bulgaria and Romania

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Abstract

Economic changes acquire a global scale and therefore it's considered necessary to seek out adequate solutions in the transport field which are to not only meet the requirements for on time and correct drop off deliveries but are also to conform to basic economic parameters and ecologic factors. One of the variants that allows the carriage of goods with favorable costs and less ecological footprints is maritime transport. Due to this, it is deemed that this type will have to establish a substantial presence in the Bulgarian transport space. Through progress into a research it has been confirmed that Bulgarian maritime transport has extremely low levels of the "goods carried" indicator and compared to the Romanian it's lacking. This puts the country in a difficult competitive position in the transport market in the Black sea region and in Europe.

Keywords: maritime transport, good carried, Bulgaria, Romania.

JEL Code: L90, N70, O18

Introduction

Transport activity is an important task that requires decisions based on the principles of optimality, rationality and responsibility, considering the expenditures that accumulate for the final price of the goods and the consequences that accompany the movement of passengers and cargo. One of the economically effective transport solutions is related to maritime transport because it allows for the destination point of the route to be reached with beneficial costs per unit of goods carried. These facts necessitate its development in current economic conditions, taking into account the goal to reduce expenses as well as the imprints which human activity leaves in the atmosphere. To accomplish this the national transport sector is to prioritize the development of eco-friendly transport options that distinguish themselves as environmentally responsible.

Bulgaria has not been strictly complying with the abovementioned principles of the organization of the transport sector's activity and as a result disrupts the balance of exploitation of the separate transport alternatives by focusing on road transport which is primarily at the expense of the rail and maritime freights. Therefore, the country loses positions on the transport market and gives up its competitive advantages. This calls for a comparison of the dynamics of development of the Bulgarian and Romanian maritime transport. By using a comparative plan, the Bulgarian and Romanian maritime transport have been chosen to be contrasted to one another since the geographic location of Romania borders the Black Sea, it is a member state of the EU and the Constanta port is one of the biggest competitors of the Bulgarian maritime ports in Varna and Burgas.

The aim of this paper is to make a comparative analysis of the current state of the maritime transport of Bulgaria and Romania and on that basis to draw some basic conclusions.

Achieving such a set goal requires formulating three main tasks:

1. To undertake in a comparative plan an analysis of the dynamics in the development of the maritime transport in Bulgaria and Romania.
2. To draw conclusions on the development of the maritime transport for both states throughout the study period.

An object of this paper is the maritime transport of Bulgaria and Romania while the subject of research is their current state.

In the course of the research, the dynamics of the development of the transported goods are to be studied, separating them by types of transport, all of which apply to Bulgaria for the period of 2015 – 2019. The research is accompanied by an objective informational limitation which originated

from the lack of accessible official statistical data on the national statistics of Romania, according to the indicators of the work performed by the maritime transport.

1. Methodology of the research

In the course of the paper, the dynamics of the development of the indicators for the structure of the transported cargo are tracked by types of transport for Bulgaria and Romania as well as the dynamics of the development of goods carried by maritime transport via the indicators that measure the absolute change (fixed-base and chained), growth rate (increase or decrease) (fixed-base and chained) and indexes (fixed-base and chained) for the two countries. Data for a relative share of the goods carried is presented graphically by types of transport for Bulgaria of 2015 and 2019 alongside the volumes of the goods carried from Bulgaria's and Romania's maritime transport during the studied period.

2. The research of the dynamics of the development of maritime transport of Bulgaria and Romania for the period 2015 – 2019

The development of maritime transport is of strategic significance for every economy which has geographic prerequisites to exploit this transport alternative. The notion of traveling by sea has a number of difficulties in modern conditions due to the hurdles countries set to deter free transport of freights and passengers, however maritime operators are searching for solutions of said problems in the rapidly-changing environment.

The scope of Bulgaria's transport sector for the period of 2015 – 2019 presents the notion that maritime transport accounts for an insignificant relative share in association with the indicators of the transported goods (see tabl. 1 and fig. 1 and 2).

Table 1. Dynamics of the development of the goods carried in Bulgaria separated by types of transport for the period of 2015 – 2019

Indicators	2015	2016	2017	2018	2019
Goods carried by rail transport - thousand tons	14635,1	14225,8	16029,9	14796,0	14948,1
Goods carried by road transport - thousand tons	85233,5	82543,4	91640,3	76469,0	59982,0
Goods carried by pipeline transport - thousand tons	23757,4	25140,8	29014,8	23165,0	19348,9
Goods carried by air transport - thousand tons	5,0	5,0	9,0	23,0	20,0
Goods carried by maritime transport - thousand tons	35,0	40,0	45,0	22,0	130,0
Goods carried by inland waterway transport - thousand tons	1832,0	2403,0	2246,0	2169,0	2246,0
Total goods carried - thousand tons	125498,0	124358,0	138985,0	116644,0	96675,0
Indicators	2015	2016	2017	2018	2019
Goods carried by rail transport (%)	11,662	11,439	11,534	12,685	15,462
Goods carried by road transport (%)	67,916	66,376	65,935	65,559	62,045
Goods carried by pipeline transport (%)	18,931	20,216	20,876	19,860	20,014
Goods carried by air transport (%)	0,004	0,004	0,006	0,020	0,021
Goods carried by maritime transport (%)	0,028	0,032	0,032	0,019	0,134
Goods carried by inland waterway transport (%)	1,460	1,932	1,616	1,860	2,323

Source: National Statistical Institute of Bulgaria.

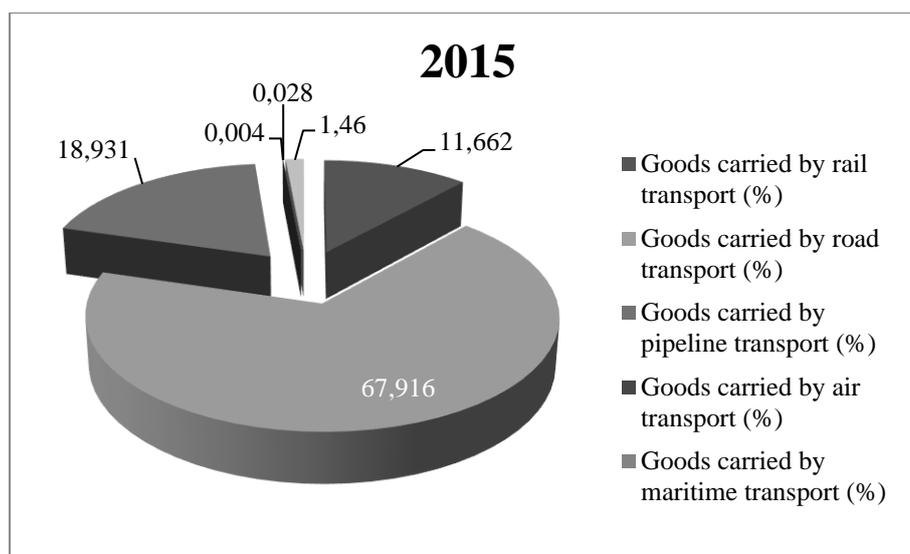


Figure 1. Share of the goods carried in Bulgaria separated by types of transport for 2015

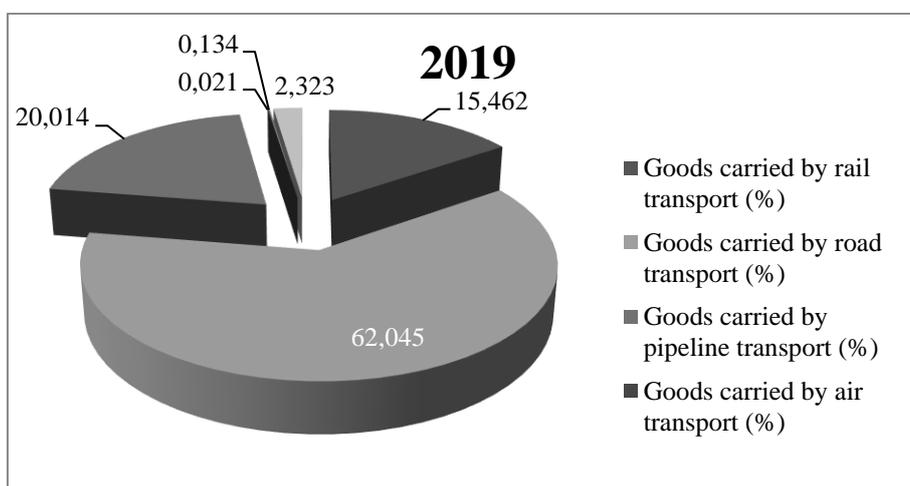


Figure 2. Share of the goods carried in Bulgaria separated by types of transport for 2019

The values with a relative share for the goods carried range between 0,032% (2016, 2017) and 0,019% (2018). In comparison with the beginning of the century, the decrease is drastic because in the year of 2000 the maritime transport of the country has accumulated 21,318% of the goods carried, out of which 19,395% belong to sea shipping and 1,923% to inland waterway shipping. The data clearly displays the fact that in its current stage of development, Bulgaria does not rely on maritime transport in the international trade and instead uses primarily road transport that takes up a relative share of 62,045% (2019) and the pipeline transport which consists of 20,014% for the same year. The highlighted imbalance in the structure of the sector is an indicator of the presence of unused opportunities that affect the strongest states, the most which are inherent to the maritime freights, namely (Koralova-Nozharova, P., 2016): particularly well suited to transport voluminous, massive, bulk goods, transportation of containers and during operation of Ro-Ro services. Said transport discerns itself with its high energy efficiency and environmental certification – the exhausted emissions in the environment are around 3 to 6 times less in comparison (UNECE, 2011); a low level of noise pollution in contrast to air and rail transport.

In the course of analysis there is the inevitable search for the reasons of the registered results that can be associated with the decreased number of ships that sail under the Bulgarian flag as well as the following exclusion of Bulgaria as an owner of a maritime flag from all lists on the Paris

memorandum – the organization that handles port control of ships. The country is absent in all three lists – black, gray and white which determine the flags with a high, medium and low risk of shipping (Belchev, R., 18 August 2019).

Until the current list of the memorandum entered into force, the Bulgarian flag was so far on the “gray list”. In that regard there was an increase in control management of EA “Maritime administration” with the purpose of having the ships sailing under the Bulgarian flag meet the highest standards related to their security and safety. Due to this part of ship owners change the flags of their ships with a high risk profile, i.e. from a Bulgarian one to a “convenient” flag such as Sierra Leone, Saint Kitts and Nevis that are all in the black list.

It is also important to note that the activity of ships under the Bulgarian flag is mainly conducted in the Black Sea and in that region of activity other than Bulgaria the members of the Paris memorandum of understanding on port state control are also Romania as well as part of the Azov region of Russia. On this subject it has to be clarified that Romania also is not on the published list in the site of the Paris memorandum of understanding on port state control, that enters in force for the period of 01.07.2019 r. - 01.07.2020, by reason of the fact that in a three-year period (2016-2018) there have been 5 evaluations of Romanian ships. Due to the small number of inspections of Romanian ships, the country hasn't been on the list for the past 10 years (Karagiozov, K., 20 August 2019).

Regardless of the fact that on a comparative basis there is a significant difference between the indicators of goods carried in Bulgaria and Romania in absolute figures measured in thousands of tons as well as in relative shares. If for the period of 2015 – 2019 Bulgaria has transported by ship an average of 54.4 thousand tons i.e. a 0,049 % of the total volume of the country, then Romania reaches an average level of 47 806 thousand tons or approximately 13% of all freights that have been transported by Romanian transport operators for the same period (see tab. 2).

Table 2. Dynamics in the development of goods carried separated by type of transport of Romania for the period of 2015 – 2019

Indicators	2015	2016	2017	2018	2019
Goods carried by rail transport - thousand tons	55306,5	52617,6	56083,1	55429,0	58808,0
Goods carried by road transport - thousand tons	198638,0	216085,0	226320,0	237132,0	256616,0
Goods carried by pipeline transport - thousand tons	6662,7	6824,8	6551,0	6459,0	6856,0
Goods carried by air transport - thousand tons	34,3	40,1	45,0	49,0	47,0
Goods carried by maritime transport - thousand tons	44485,0	46288,0	46126,0	49032,0	53098,0
Goods carried by inland waterway transport - thousand tons	30020,0	30484,0	29043,0	29714,0	33261,0
Total goods carried - thousand tons	335146,5	352339,5	364168,1	377815,0	408686,0
Indicators	2015	2016	2017	2018	2019
Goods carried by rail transport (%)	16,502	14,934	15,400	14,671	14,390
Goods carried by road transport (%)	59,269	61,329	62,147	62,764	62,791
Goods carried by pipeline transport (%)	1,988	1,937	1,799	1,710	1,678
Goods carried by air transport (%)	0,010	0,011	0,012	0,013	0,012
Goods carried by maritime transport (%)	13,273	13,137	12,666	12,978	12,992
Goods carried by inland waterway transport (%)	8,957	8,652	7,975	7,865	8,139

Източник: Institutul Național de Statistică al României.

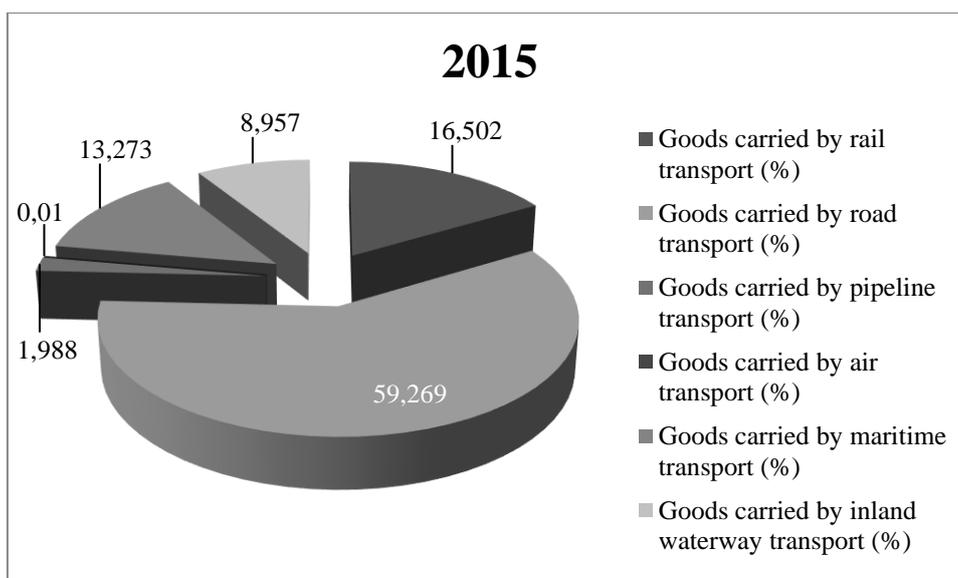


Figure 3. Share of the goods carried separated by type of transport of Romania for the period of 2015

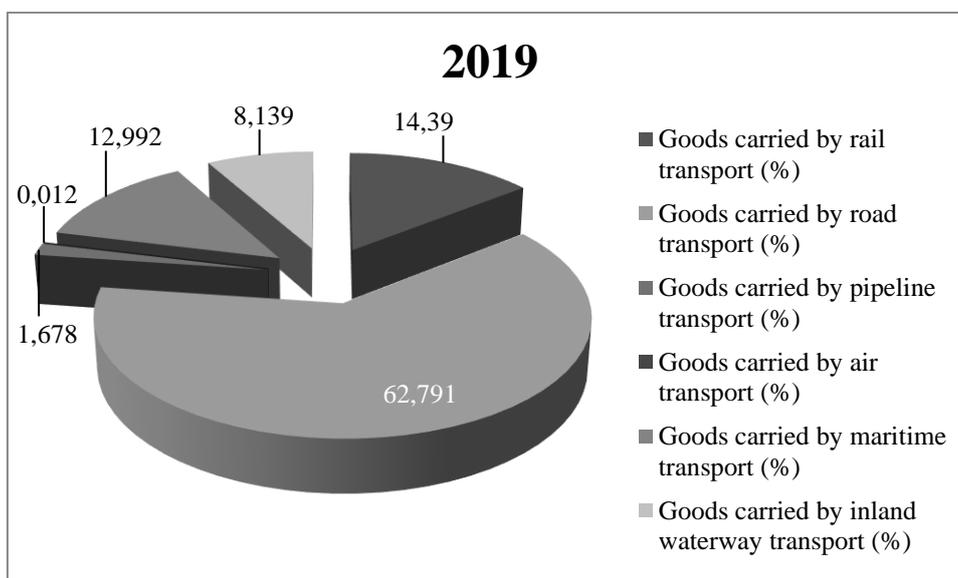


Figure 4. Share of the goods carried separated by type of transport of Romania for the period of 2019

Romania is an important maritime center due to the location of Constanta harbor and therefore the opportunities of that position are under maximum exploitation, considering the great potential of maritime transport in the context of the national economy which provides a connection between production and consumption via a constant influx of raw material towards the industrial sector and the movement of finished goods towards the markets. In respect of the Romanian maritime transport, the primary categories of stock that are transported to the agriculture sector, the mining sector and forestry, production, trade and construction.

Similar freights go through Bulgarian ports as well. In 2019, Varna port had a growth in comparison to 2018, in relation to some types of processed cargo while data from the annual report of activity for other types of stock mark a decrease: bulk goods (-7,2%), liquid goods (81%), general goods (-1%), containerized goods (2,9%) (Pristanishte Varna, 2019).

The general picture of the Bulgarian maritime space signals that there is a serious shift away of the country from this market segment judging by the official statistical information of the volume

of the goods carried, their levels being between 22 thousand tons (2018) and 130 thousand tons (2019) (see tab. 3).

Table 3. Dynamics in the development of goods carried of maritime transport of Bulgaria for the period of 2015 – 2019.

Years	Goods carried thousand tons	Absolute change of goods carried (thousand tons)		Growth rate (increase or decrease) of goods carried (%)		Index (%)	
		2015=100	chained	2015=100	chained	2015=100	chained
2015	35	0	0	0	0	0	0
2016	40	5,0	5,0	14,286	14,286	114,286	114,286
2017	45	10,0	5,0	28,571	12,500	128,571	112,500
2018	22	-13,0	-23,0	-37,143	-51,111	62,857	48,889
2019	130	95,0	108,0	271,429	490,909	371,429	590,909

Source: National Statistical Institute of Bulgaria.

Just three years ago during 2012, there were 2 035 thousand tons transported via seafaring vessels and the decrease for the period of 7 years is over 15 times less. The negative tendency is troubling, with the exception of last year which evokes negligence towards the problem of the lack of development of the Bulgarian ports with a view of integrating them into Europe’s transport system and the retreat of ship operators from the Bulgarian register.

If a parallel tracking of the statistical data is made such as the type that indicates the dynamics in the transported goods that have been screened through the Romanian ports for the same period, it’ll lead to the conclusion that on one hand there is a quantitative superiority that reaches levels of 53 098 thousand tons and on the other hand there is a positive trend of growth in 2019 when compared to 2015 which is 19% (see tab. 4)

These results are the main piece of merit of Constanta port which has managed to become one of the primary allocation centers for Central and Eastern Europe, chiefly due to the fact that it is simultaneously a sea and river harbour whose facilities allow for the processing of different types of vessels and provides a secure direct connection to Danube river via the Danube Black Sea canal. This gives Constanta an advantage over the other maritime ports since it permits the use of multimodal transport of goods to the place of destination (Stinga, V., A. Olteanu, 2019).

Table 4. Dynamics in the development of goods carried of maritime transport of Romania for the period of 2015 – 2019

Year	Goods carried thousand tons	Absolute change of goods carried (thousand tons)		Growth rate (increase or decrease) of goods carried (%)		Index (%)	
		2	3	4	5	6	7
		2015=100	chained	2015=100	chained	2015=100	chained
2015	44485	0	0	0	0	0	0
2016	46288	1 803	1 803	4,053	4,053	104,053	104,053
2017	46126	1 641	-162	3,689	-0,350	103,689	99,650
2018	49032	4 547	2 906	10,221	6,300	110,221	106,300
2019	53098	8 613	4 066	19,362	8,293	119,362	108,293

Source: Institutul Național de Statistică al României.

The serious differences that are detected between Bulgaria and Romania in respect to the goods carried with maritime transport for the period of 2015 – 2019, are reflected on figure 5.

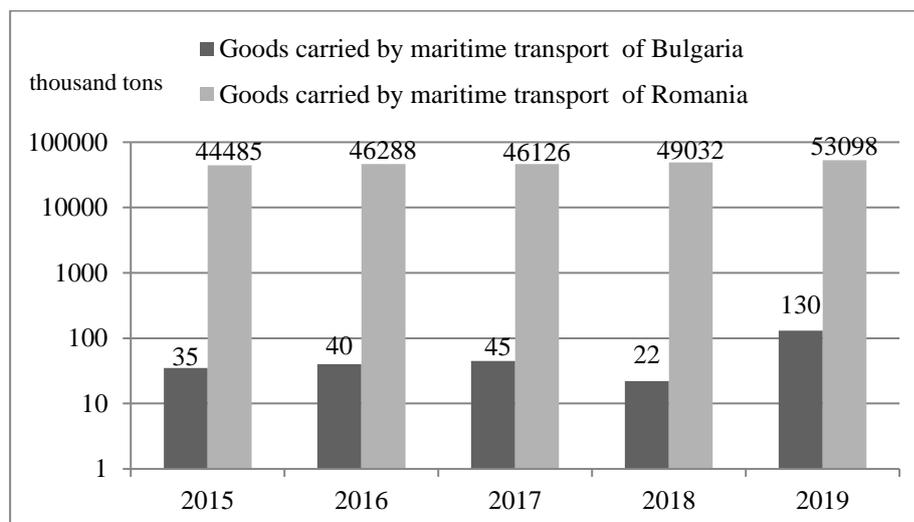


Figure 5. Dynamics in the development of goods carried of maritime transport of Bulgaria and Romania for the period of 2015 – 2019

The data suggests that Bulgaria cannot be compared to its neighbor at this point of time in regards to the dynamics in the development of maritime freights since Romania displays much bigger volumes which have not been indicated in either year of the current century in Bulgaria. The most successful year of the Bulgarian maritime transport in the 21st century is the year of 2000 when there were 18 619 thousand tons transported and work was done equating 73 391 million tkm after which there was a decrease in the volume of goods as well as in the jobs completed to reach levels of 130 thousand tons of goods carried while the transport performance amounts to 200 million tkm in 2019.

3. Main conclusions from the research of the dynamics in the development of maritime transport of Bulgaria and Romania for the period of 2015 – 2019.

The main conclusions that the current overview of the state of maritime transport of Bulgaria compared to Romania has reached are the following:

1. There has been a downward trend in the development of maritime transport of the country that is typical not just for the 2015 – 2019 period but also for the beginning of the 21st century. It's startling that in the span of a few years Bulgaria has lost its positions as a significant maritime power on an international scale, resulting in a drastic withdrawal of vessels from the Bulgarian shipping register and their shift towards the so called “convenient flags”. Another causal link should be sought in respect to Varna and Burgas ports that do not satisfy the requirements that have been imposed by the modern vessels considering their ever growing parameters mainly relating to draught. This connection should not postpone any strategic decisions that are directly linked to structural changes of port infrastructures with the aim of having it adapt to the demands of current day vessels and the creation of actual preconditions for their mooring and the processing of loads within minimal time frames and with optimal quality.

2. The second conclusion that has been established is directly related to the obvious loss of market positions in the maritime transport section and the absolute superiority of Romania. In all actuality, Romania has created operational conditions for maritime transport and makes use of all of its advantages. The nation manages to attract goods from multiple European states by offering a very modern transport solution based on the principle of multi-modality. Romania succeeds in

exploiting the possibilities of combined transport, realized on the principle “river – sea”, therefore making itself more attractive to Europe’s shippers.

As a result, Bulgaria is to examine thoroughly Romania’s good practices in the development of maritime transport and is to follow its positive and motivating example accredited to its successes in that direction.

4. Conclusion

Maritime transport has become a part of Bulgaria’s national interests, with its significance for the development of the economy and for the marine regions of the country. On that basis, its expectations are for its development to be prioritized, founded on the presumption that it has economic and ecological benefits on the national level. Currently, there isn’t any genuine interest from Bulgaria as a state and that has led to the reduction of the sector’s indicators to minimal levels which in a short term time scale threatens the actual closure of maritime transport operations. This perspective cannot be discussed on a serious level and instead there needs to be a focus on the possibilities Bulgaria has, with an outlook of reestablishing maritime activity within the actual limits of its capacity and perhaps even to attempt to broaden the maritime horizons of the country by following Romania’s standard.

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