

STUDY ON ABOUT THE INFLUENCE OF GOODS TRANSPORT BY SEA ON ECONOMY AND WORLD TRADE DEVELOPMENT

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Abstract: Paper refers to the role and importance of goods transport for economy and world trade development. Will be dealt with topics related to the current state of maritime transport infrastructure in Romania and its development prospects.

Key-words: goods, maritime transport, trade

1. INTRODUCTION

Most historians agree with the fact that the first human communities have developed around the waters which were a vital resource for human existence, it is easy to imagine that in these conditions the sea transport was in addition to the direct transport of people, the first solution to transport these communities. At the beginning the conveyances were simple logs or rafts.

The first ships were built for transportation on rivers and canals; channels were made in Mesopotamia around 4.000 BC. Indus Valley Civilization in Pakistan and North India (since 2600 BC) built the first irrigation system in the world. The longest canal from ancient times was the Grand Canal in China with a length of 1794 km and served to the transportation of Yang Guang Emperor between Beijing and Hangzhou; the project began in 605, although oldest section of the canal existed since 486 BC.

The navigation channels were built also in Europe in medieval period at Venice and Netherlands. In France the first waterway (Midi Waterway) with a length of 240 km was built by Pierre-Paul Riquet in 1665, and was open for navigation in 1681. In the first phase of the industrial revolution, before the development of railways, canals and waterways were built in England and later in the United States.

With the development of civilization and the increase of commercial exchange, larger ships were built for navigation on the seas and oceans, to meet the needs of both commercial and colonial expansion and war. The use of compass, discovered by Chinese, gave a strong impulse to the navigation on the high seas and oceans. The first galleys were built in Mediterranean Sea around year 3000 BC. Galleys, ships with propulsion based mainly on rowing and manpower were gradually replaced with sailing ships such as Arabic Caravel (recorded in the thirteenth century), Chinese ocean-going ships (XV century) and the Mediterranean line ships at the end of the fifteenth century; it were also built specialized ships for ocean fishing and whaling, the main achievement in the development of maritime transport to the great geographical discoveries (XV-XVI) is the caravels construction - three trees ships with sails.

The Age of the great geographic discoveries from fourteenth - sixteenth century has strongly roused the development of the shipping industry related to the needs of international trade coverage and territorial expansion. Before the apparition of the first power-driven vessels, the large sailing vessels (the clippers) achieved average commercial speeds of $14 \div 20$ Knots, comparable with the speed of today modern ships; obviously, their transport capacities were much smaller, ca. $200 \div 500$ tons.

The shipbuilding evolution is directly influenced by the competition between sailing vessels (ships) and steam (ships). After the appearance of the first steam ship built by Robert Fulton, some events marked the way to supremacy of the steamships. Thus in 1819 the "Savannah" ship of 380 tons, with mixed propulsion - sail

and steam - crossed the Atlantic. During the trip the coal stock is finished, and the ship sailed on sailing; the ship gave only partial satisfaction. However, six years later, in 1825, the English ship "Enterprise" of 480 tons, traveled between England and India in 54 days, from which 35 days with steam; in 1827 the Dutch paddle ship "Curacao" managed the first crossing of the Atlantic between Rotterdam and Dutch Guyana without using sails.

Although the shipping is constantly developing, using long-distance steam engine did not meet at first the votes of all the specialists and the general public due to technical problems. Two major improvements removed the last reticence, intervening decisively in favor of ship: using the propeller as a means of propulsion and the steel as a construction material of the hull. One of the main effects of the Industrial Revolution was the development and consolidation of cheap and fast shipping.

To ensure the requirements of the ever growing international trade, ships have become bigger and more specialized; they currently provide over 90% of total world trade.

One first very important revolution by the effects it has had on shipping was the one generated by the development of bulk transport. The bulk transportation of staples began to be seen as part of an integrated process for handling goods in which the investments can improve the productivity.

By using larger ships through investment import means of quick handling and integration of the entire transport chain, transport costs of bulk goods were brought to a level so low that it became cheaper to import raw materials from suppliers situated thousands of miles away, which provided these materials at relatively low costs, rather than from domestic suppliers within a few hundred miles away but whose shipping costs were higher.

Ships with increasing larger capacities played a central role in this process, so between 1945-1995 the capacity of tankers carrying increased 20 times and 15 times that of ore carrier. The improved means of handling goods in ports and a better integration of shipping with land transportation completed this transformation.

In the contemporary period shipping have had a spectacular development, driven by technological progress, the intensification of international economic relations and the discovery of oil deposits in marine continental shelves. Therefore it expanded the building of large ships, especially after 1956, when Japan launched its first 84,000tdw tanker.

The fusion activity of general goods in standard load units had a much greater effect than the one predicted by the most ardent supporters of this system; if in the early '60s were required a few months, for example, for goods from Europe to reach the USA, in the early 80s this term was reduced substantially, therefore the container leaving the supplier can reach destination with the intact cargo, on the same route in $8 \div 10$ days.

2. THE PRESENT SITUATION AND THE DEVELOPMENT PERSPECTIVES OF SHIPPING

Maritime transportation is the backbone of the international trade and the world economy; over 80% of world trade -as volume and more than 70% - as value-is represented by the maritime trade. In the developing countries these percentages are even higher.

According to the latest statistics published by UNCTAD[1] the worldwide shipping increased in 2011 by 4% compared to 2010 reaching a record level of 8.7 billion tons. During the same period global fleet capacity increased at a faster rate (10%), reaching for the first time a total displacement of 1.5 billion tons.

Parallel with the worldwide shipping, and as a result of its growth, in 2011, the port traffic recorded an increase of 5.9% compared to 2010. The volume of traffic from ports in developing countries is 60% for the loaded goods (exports) and 57% for the off-loaded goods (import).

According to the mentioned report, the imbalance between supply and demand of transport but also in the growth of goods volume and the increase of

vessels transport capacity, the difference of 6%, is causing a freight contraction of the comparable rate and is financially burdening many shipping companies causing a freight decrease, meaning a profit reduction of these companies.

On the other hand, a freight decrease may have a positive effect, especially for developing countries where transport costs are higher than in developed countries, for example, between 2010 and 2011, the average price of transporting a 20 feet container (TEU) from Shanghai to Northern Europe dropped from \$ 1.789 to \$ 881 and a 40 feet transport container (equivalent to 2 TEUs) from Shanghai to the U.S. east coast decreased from \$ 2.308 to \$ 1.667.

Between 2011 and 2012 the number of pair countries using regular shipping services remained stable at a value of approx. 18%, the other countries required at least one port of transshipment. Between 2004 and 2011, the average numbers of liner companies decreased by 23% while the average displacement of container ships almost doubled.

Table 2.1. World trade growth rates between 2008 ÷ 2011

Import				Countries / regions	Export			
2008	2009	2010	2011		2008	2009	2010	2011
2,4	-13,1	13,9	5,9	Worldwide	2,5	-13,4	14,1	5,0
2,5	-15,2	13,2	5,1	Developed countries of which:	-0,2	-14,5	11,0	3,5
2,3	-24,9	27,5	-0,4	Japan	-0,6	-12,4	10,1	1,9
5,5	-14,9	15,3	7,2	USA	-3,7	-16,4	14,8	3,7
2,4	-14,3	12,0	6,0	European Union (27)	0,8	-14,2	10,0	3,2
3,2	-9,7	15,4	7,0	Developing countries, of which	6,6	-9,9	19,2	6,2
-3,1	-9,7	8,7	-5,1	Africa	10,6	-3,9	7,1	3,9
-0,3	-11,0	10,3	3,4	Latin America and the Caribbean	8,5	-17,9	23,3	7,1
1,6	-10,9	18,8	4,5	Asia of which:	8,0	-16,3	21,9	6,1
1,8	-10,9	18,8	4,5	ASEAN	8,0	-16,3	21,9	6,1
10,6	-13,9	29,0	12,8	China	2,3	-1,8	30,8	10,6
16,8	-6,6	5,9	13,7	India	29,7	-0,8	13,8	5,3
8,8	2,6	15,3	11,2	South Korea	0,7	-2,7	17,4	6,7
-0,2	-14,4	11,5	6,0	Countries in transition	15,5	-28,6	-15,5	17,0

The laws and regulations relating to shipping and trade are also evolving. Among these regulations that deserve to be revealed a number of technical and operational measures may be indicated to increase energy efficiency and reduce green house gas (GHG) emitted by the world merchant fleet, adopted under the auspices of the International Maritime Organization (IMO-IMO) in July 2011 and which came into force on 01.01.2013.

According to the rates of growth of world trade on groups of countries and geographic regions between

2008÷2011 are shown in Table1.2. It appears that after are bounding 2009 due to the global economic crisis that began in 2008, there were increases in both 2010 and 2011 even though the increase in the last year was lower than in 2010.

Obviously maritime trade was within the same development, in the same period the development of international maritime trade on the main categories of goods is presented in Table2.2. and Figure2.1.

<i>Chart 2.2</i>		<i>The international development of maritime trade (million tons)</i>		
Year	Oil and gas	The main bulk	Other dry cargo	Total goods
2008	2.742	2.065	3.422	8.229
2009	2.642	2.085	3.131	7.858
2010	2.772	2.336	3.302	8.409
2011	2.796	2.477	3.475	8.748

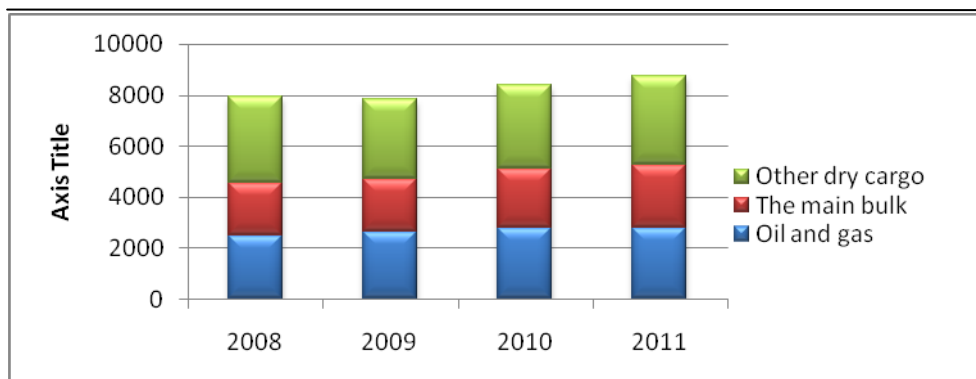


Fig. 2.1 International maritime trade volume between 2008÷2011.

It appears also in this case that in 2009 there was a decrease of the international maritime trade by about 4.5% and with a much lower rate of decline than in world trade that was about 13%. It also notes that the main decrease was in the general goods and less on petroleum products and gas; in terms of bulk goods they were less affected by the global crisis in 2009 and they even recorded a slight increase over 2008. In 2010 there was a revival of maritime trade volume such in 2008. 2011 registered a growth in all products and a high total volume transported by sea, approx. 8.750 million tons loaded. This is due to a higher growth rate of dry cargo (about 5.6%) due to the return of containerized freight traffic (by approx. 8.6%) and bulk traffic (about 5.4%). For 2012 it was estimated an annual increase in the volume of transported goods by 4.3% although there is still a number of risks that may influence a clear and sustainable shipping return such as global economic uncertainties, maritime piracy, limiting trade financing and geopolitical tensions.

With all these risks further increases are expected in shipping especially containerized cargo that had the largest decrease in 2009. Long-term statistics show that transport development and economic growth

rate in parallel. According to the WTO (World Trade Organization) in each increase of 10% of world production is an increase of 16% in the volume of international trade and also the transport activities.

Currently the share of transport costs in the final price of goods is about 9÷11% and it results from the close link between transmission and economic activities, especially foreign, each exerting a strong influence on the other. The productivity growth of transport systems results in the reduction of the transport costs which contributes to the development of foreign economic relations, resulting in the sphere of external economic relations to new faraway markets[2].

The European strategies for international shipping require strong development of container transport by increasing larger ships, which will lead to the development of ports with larger water depths (so-called hubs port) from where the goods will be sent further into one or more steps with smaller vessels (feeder ships) which ensures the delivery in smaller ports yet closer to the final recipient.

3. CONCLUSIONS

At European level there can be seen a repletion of the road transport system which is to increase interest in rail and inland waterway shipping. A solution that became popular is the creation of coastal motorways [3] which represents shipping flows between bordering countries the same sea or situated at small distances between country ports. Such highways can be created for example from Italy, France, Spain, Greece, and Romania in the Mediterranean and the Black Sea and between countries in the Mediterranean coast, west coast of Europe and England.

Given the geographical distribution of land and resources of raw materials and finished products is still clear that shipping will remain the most important connection between the countries of the world.

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