

Sea freight - Antwerp Port

Nicoleta Andreea NEACŞU¹

Abstract: *Shipping plays a vital role in achieving the movement of goods, both in terms of quantity and efficiency. This paper presents the role and advantages of shipping in the global economy and analyzes the development and Antwerp Port activity. Currently, the second most important trading port in Europe and 14th in the ranking of most important ports that handle containers worldwide, the Port of Antwerp, Belgium is a port in the heart of Europe, accessible to large sized vessels. 200 years of constructing infrastructure and logistics around the central location, as well as pressure from Rotterdam, that had an impact on the competitiveness of the port of Antwerp, all this led the port to occupy a leading position in the top rankings.*

Key-words: *shipping, port, trading*

1. Introduction

The vessels have carried goods from one place to another of the world for thousands of years. Today, shipping is still essential for international trade, 90% of this, in terms of volume shipments being carried by ships.

Shipping costs are influenced by factors such as infrastructure, oil prices, the transport length, competition between the major shipping companies, corruption and the activities of pirates.

Trade in certain products was particularly influenced by changes in the cost of shipping, especially that of cereals and seeds for oil, products that are shipped in bulk. A doubling of the cost of shipping for agricultural goods would be associated with a 42% decrease in average trade.

The analysis conducted by the Organization for Economic Cooperation and Development (OECD) confirms that as time required for commercial transactions is higher, the less is the transports volume. The long term and difficult procedures for exports and imports reduce the probability of companies to enter on foreign markets with perishable products.

¹ Transilvania University of Braşov, deea_neacsu@unitbv.ro

2. Shipping

Given the general economic progress of society in the last decade it was recorded an unprecedented growth in global trade, transport of basic raw materials needed by industry, agriculture and trade of manufactured products.

On the other hand, increased trade between countries in different geographical areas, the participation of those countries to this process is a prerequisite for boosting economic and social progress of each geographical region.

Shipping plays a vital role in achieving the movement of goods, both in terms of quantity and efficiency, the role conferred by issues such as:

- relatively low cost compared to the high volume of cargo that can be carried;
- complex and diverse nature of trade;
- increasing the number of participants in these exchanges.

The total cost of shipping has a strong influence on the competitiveness of exported products and that is why exporters must optimize the quantities delivered and the pace of deliveries (Boşcor, 2007).

The three key elements underlying the definition of maritime transport are:

- goods characterized by a large volume and high value;
- vessels as a means of transport that incorporates a level of high-tech and investment;
- ports as transshipment hubs and facilities operating within them.

Given these elements it can be stated that shipping is a particularly complex economic activity, national and international in character, to be designed and deployed both as required and ensuring profitability.

Shipping is by definition a liberalized activity. Unless otherwise would have been, no one would benefit from the role this mode of transport plays in international trade.

The main function of maritime transport is a liaison between production and consumption and is characterized by two essential features of economic nature:

- economic efficiency, satisfying the requirements defined;
- profitability as a prerequisite to a broader economic activities involving actual transport costs and costs related operations.

Both economic efficiency and profitability depend determinant of the three essential elements that underpin the definition of maritime transport namely the goods, ships and ports.

For a company, its ability to integrate its environmental forces, to concatenate its internal resources and integrate the pressure from investors and stake holders in order to succeed in creating create value at the end of each business cycle is crucial to its success and sustainability (Drumea, 2004).

Maritime transport has led to the development of broad international cooperation, under the auspices of the United Nations to ensure:

- the safety of life and ships on sea;
- avoiding accidents and organization of assistance and maritime rescue;
- ambient pollution prevention in general and the marine environment in particular;
- unification of law and methodology in maritime transport;
- providing goods, vessels and persons;
- protection shipowners and cargo owners;
- fixing for maritime commerce, a legal and adequate, economic framework equitable, sustainable and workable, amid international cooperation, guaranteeing functionality, equal rights and obligations of the partners, under the principle of mutual benefit which can provide a return fair in the international community.

The disputes that arise in international transport contracts are settled mostly on international arbitration. If the international contract doesn't contain a rescission clause the plaintiff requested for the rescission to be ascertained by the Court of Arbitration on the basis on the arbitration clause in the contract, which gives the arbitral tribunal the power to settle the dispute (Bărbulescu, 2015).

Shipping was developed together with the global economy, knowing both inclines of world trade, and those descending, gradually turning into a global industry. Today, shipping is represented by a well-crystallized international community using fleet performance, advanced communications systems, class specialists, enjoying the basic principle of a free trade (Caraiani and Georgescu, 2012).

Since its inception and until today, shipping has not only kept pace with the global economy, but also contributed fully and effectively to its development. The crucial role played by the sea transport in the early stages of economic development has been recognized by the world's great economists. In chapter 3 of his book "The Wealth of Nations," Adam Smith, claiming division of labor as the key to success in a capitalist society, highlighted the crucial role of maritime transport.

Commercial fleet consists mainly of bulk cargo freighters, designed to transport bulk goods, petroleum, designed to carry liquid cargo and container ships. Niche segments, such as gas carriers, cars and ships with capacities of refrigeration represents the remaining 15%. The whole fleet includes 50,000 vessels with a carrying capacity of almost 1.4 billion metric tons. The life expectancy of a ship, when it can be used for economic purposes, it is generally of 25 years (Smith, 2008).

In terms of value, trade by sea covers 60% of all international trade. Main development visible in the shipping industry from 1950 to the present is the emergence of container ships. In the last 60 years, trade in container by sea increased from 0 to almost 15 billion metric tons.

3. Shipping in Europe

For Europe, shipping has been a catalyst for economic development and prosperity, throughout history. Shipping allows trade to make contact between all European nations. It ensures security of energy supply, food and utilities and is the main way of achieving imports and exports with the world.

The European Commission has initiated a strategic reflection regarding the best way to ensure a prosperous future for the European maritime transport. In the European Union, 90% of imports and exports are made by sea, and 40% of intra-European trade activities is achieved in this way. Availability of quality shipping services is crucial for EU trade and secure energy (www.europa.eu). This type of transport is also the most sustainable means of transport. Europe must ensure that it can adapt to the rapid changes in the globalized world and can look towards a better future. At the same time, Europe must maintain qualified personnel in the field and the ability to be competitive. The need for skilled labor force has risen accordingly, which has increased pressures on educational systems in the sense of providing tailored training programs (Băltescu, 2016).

The introduction of cabotage in 1993 and the need for the intervention of the European Community to improve the conditions of maritime transport have led to the adoption of measures relating to competition policy, prevention policies of unfair charging standards for vessels used for transporting dangerous materials and on working conditions.

Over 1,200 commercial ports are located along the 100,000 kilometers of European territory. Commercial ports constitute a solution of cohesion through the development of passenger transport services and ferry services for freight. European ports are a direct and indirect source for half a million jobs, while ensuring the dynamism and development of the regions, even those peripheral, in accordance with the Lisbon Treaty. Actions taken by the European Commission pursue sustainable development of all European ports, by promoting industry efficiency, reduce negative environmental impact and of course, full integration of ports in the transport chain (www.europa.eu).

EU rules provide a legal framework for actions to help those involved in this field to focus their efforts so that Europe's ports can overcome any obstacles, be able to attract new investment and fully contribute to the development of transport. The Commission's approach is based on close cooperation with all stakeholders, public and private, to implement appropriate responses to these challenges and ensure a harmonious development of ports in the European Union (<http://www.europarl.europa.eu>). Competition between and within ports is increasing for various reasons, highlighting factors that distort trade flows between Member States. The European Commission has described these factors as liberalization of the internal market, technological changes (application of information technology,

standardization of loading units), and the development of Trans-European Network, which provides users and operators a higher bid in terms of modal shift.

The Green Paper on port infrastructure, drafted in 1997, specifies that ports were not far in the central European common policy on transport. However, they have played a role in the Trans-European Transport by increasing the efficiency of the European transport system, in that they are crucial as points of connection for the transfer of goods and passengers between modes of land transport and maritime, says the Ports Green Paper. Improved efficiency will help integrate modes ports in a single system, with the simple condition that interoperability and interconnection between transport systems exist.

The region with the highest density of European ports and one of the most important global maritime is North Sea region, also a center of the EU economy. North Sea Region economy generates 13% of European GDP and employs 12% of the workforce at European level (www.railwaypro.com). In fact, 45% of all maritime cargo that have contact with the European Union reach this region, the North Sea being one of the most navigated sea, in terms of transit of vessels with international destinations. North Sea and its maritime sector connects with the European economy and ensure Europe's competitiveness in global markets. However, this role is often overlooked and misunderstood by the general public.

4. Port of Antwerp – activity and development

A century ago, the Port of Antwerp offered anchorage conditions for Titanic, the largest ship in those days. Currently, the second most important trading port in Europe and 14th in the ranking of most important ports that handle containers worldwide, the Port of Antwerp, Belgium is a port in the heart of Europe, accessible to large sized vessels. Antwerp is located on the end of the estuary formed by the river Scheldt. Estuary is navigable for vessels exceeding 100,000 tons over a distance of 80 km. Central relative position on the map shows that Antwerp enjoys a central location closer to Europe than other North Sea ports (www.portofantwerp.com). Port docks are connected to other transport network, railway, river and road networks. This is one of the reasons that Antwerp has become one of the largest European ports and the second after Rotterdam in terms of quantity of goods handled.

With over 300 scheduled services and more than 800 destinations, Antwerp is able to provide flexible and reliable connections to ports around the world (<http://www.antwerpheadquarters.be>). Port of Antwerp owes its strong offer a number of strengths, due to which transport companies were established in the port of Antwerp for centuries:

- Nautical accessibility - to gain access to the port and the largest container ships, Scheldt was deepened in 2010. Because of this deep, extra sized

container ships now have access to port. They can enter the port safely and can use their full capacity. The company that has the most such ships in the port of Antwerp is MSC, with more than 100.

- Nautical efficiency - River Scheldt Treaties for the Netherlands is based on an understanding that says this river navigation will be done under the concept "integrated chain". This means that not only the interests of a party are pursued, but when a ship has the final destination the port of Antwerp, is guided so as to reach the destination fast, secure and efficient in terms of cost (<http://www.sustainableportofantwerp.com>).

- Port security - within the port, Harbour Master's office monitors the safety of navigation. It is responsible for taking all measures to protect public order, peace and security in the port as ordering handling and storage, port access ordering and environmental protection, integrity and security of the port. The port is monitored 24/7 and is used an advanced electronic verification of those who accessed port scanning.

- Location inward - Antwerp offers direct, rapid and environmentally friendly access to major consumption and production centers in Europe. Location the port of Antwerp (80 km from shore) provides cargo access deep into the continental Europe. This, combined with a strong network of hinterland connections, makes any type of cargo to be efficiently transported to its final destination. Location provides also a stable base on which the activities of the port, making the port of Antwerp to be more attractive.

- Port productivity - in terms of container handling, Antwerp is the most effective of all ports in northwest Europe: in any other port is not such a number of containers discharged in relation to the vessel capacity.

Antwerp has not become the second largest port in Europe by mistake. 200 years of constructing infrastructure and logistics around the central location, as well as pressure from Rotterdam, impressive North rival that had an impact on the competitiveness of the port of Antwerp, all this led the port to occupy a leading position in the top rankings. A position which, so far, appears to be defended in the war on two fronts, led by the Port of Rotterdam in the north, but also with well usher Zeebrugge in the west, appears to be due to the fact that the vessels do not need help to above forward on the estuary. However, the authority of the port Antwerp follows also steps made by the port of Rotterdam when looking to broaden the activities of economic entities abroad, putting emphasis, particularly in the Middle East (Oman), Africa south of the Sahara (DRC) India (Hazira in Gujarat), Vietnam and Brazil (Vitoria).

We can say that the three ports, Antwerp, Rotterdam and Zeebrugge cast off their literally one another on traces, taking advantage of their strengths to attract more traffic compared to neighbors. But in fact, rather than maintain a competitive relationship between them, we can talk about cohabitation: it is a situation where the

partners are in a position of competing micro-economic scale and complementary position on a macroeconomic scale.

Cohabitation is not a new fact for the Belgian ports. In fact, the port of Zeebrugge, rather than to cover the port of Brugge problems, should serve as satellite communications port to Antwerpen. Not only referring to this example, containerized port activity is becoming increasingly important in the port of Zeebrugge and shipments of containers between two ports, whether it is through barges, trains and trucks. Through its accessibility, Antwerp port Zeebrugge is therefore complementary. And through distribution platform Antwerpen complements Zeebrugge port. In the same manner, the Port of Amsterdam is complementary to Rotterdam. These two parts, the Belgian and Dutch are connected through relationships that have ports in the composition model

Economic growth regions and ports, such as India, Brazil, Africa, the Middle East and Southeast Asia, often need guidance in the development of ports and logistics infrastructure. Port of Antwerp advises to build ports in a professional, efficient and sustainable way.

In recent years there has been an increasing demand from regions with rapidly growing economy to help expand their ports. Also for Antwerp itself, cooperation with the region's economic growth is vital for the country strategy. The port aims to strengthen its presence systematic outside Europe, especially in new regions that generate traffic. Through intensive interaction and relationships that PAI has, it creates a network between Antwerp and maritime regions with rapid economic growth.

5. Conclusions

Antwerp is a port created by people for people. It is of extreme importance for Belgium as a country and for the entire European Union, ensuring the transport of goods departing from European producers to consumers worldwide, and vice versa.

The port is transited every day by different types of ships loaded with goods of the most diverse, to be distributed through well implemented networks and designed so the distribution time to be as short and costs as low.

Its main advantage is the location, in heart of the continent and experience and seriousness in dealing with port activities. With the development of world economy and international trade, also the importance of the port has increased, and the prospects are encouraging.

Referring to the port's future, the authorities are considering making sustainable decisions, so the impact of economic activities in the port to have a minimal impact on the environment and development opportunities of future generations. To overcome these problems, companies in the field, provide valuable tools, namely Total Quality Management. TQM involves new management

strategies, changes in culture and infrastructure, tools and techniques to determine all members of the organization to collaborate and enable continuous improvement of quality defined by the client (Madar, 2015).

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