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Recent Evolution of Cruise Activities in European Ports of Embarkation: a Quantitative and Economic Approach

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Abstract

The Caribbean, the Mediterranean, Northern Europe, Alaska, Trans-Canal, West USA, Hawaii and South America are the major cruise markets. Europe is an important destination for cruisers growing its market share on the world map. In this paper, we try to do a critical analysis of the cruise industry in order to approach the significance of the cruise sector to the European economy. More specifically, we will focus on the recent development of cruise activities in European ports of embarkation, approaching this development from a quantitative and economic perspective. We will, also, estimate the economic revenues derived from cruise passengers in the European cities of embarkation. The paper's methodology is based on theoretical and empirical data correlated with the passengers' revenues.

J.E.L. Classification: L83, L91, N70

Keywords: European cruise evolution, cruise ports of embarkation, economic impact, cruise passengers expenditures, cruise revenue

1. Introduction

“Cruise tourism” is the choice of a suitable shaped ship, which can be used both as a residence and entertainment and as a means of transportation. The cruise ship offers the opportunity to a large numbers of tourists to visit major ports and discover different cultures. Cruise industry is one of the major growth areas of the international tourism (Hobson, 1993; Peisley, 1992).

The main objective of the activity of the maritime tourism is to provide the cruise tourism product. The main sectors of the cruise as a tourism chain are the transport, the tourism, the entertainment and the trip (Wild and Dearing, 2000).

Over the past two decades, the cruise line industry has become one of the fastest growing segments in the travel industry. The cruise industry has already developed into a mass market using large vessels in accordance with the cruise industry of the 1960's (Rodrigue and Notteboom, 2012) and has become a symbol of globalization of the tourism industry in terms of its market coverage, its practices and the mobility of its assets (Chin, 2008; Weaver, 2005; Wood, 2000).

The European cruise industry in general is quite developed, with a total operating income of over €30 billion (€32,2 billion in 2010) and approximately €14 billion (€14,2 billion) in direct costs, resulting from passengers and cruise companies (European Cruise Council, 2011). Specifically the Mediterranean, which along with the Caribbean comprise the two main cruise destinations with over the 60% of cruise passengers worldwide, plays an important role in the cruise industry and in this respect, Greece is placed in a developed market, facing direct competition from countries in the Eastern Mediterranean and the Black Sea.

According to the European Cruise Council (2011), during 2010 there 45 cruise lines domiciled in Europe, operating 132 cruise ships with a capacity of around 137,100 lower berths¹. Another 66 vessels with a capacity of nearly 81,000 lower berths were deployed in Europe by non-European lines. Over 5 million European residents booked cruises, a 10% increase over 2009, representing nearly 30% of all cruise passengers worldwide.

¹ Used to measure the normal capacity of a ship when two beds in each cabin are occupied.

More than 5 million passengers embarked on their cruises from a European port, a 7.6% increase over 2009. Of these over 4 million were European nationals and about 1 million came from outside Europe. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating about 25 million passenger visits at around 250 European port cities, a 6% increase over 2009. In addition, an estimated 13 million crew also arrived at European ports.

There were 41 cruise lines domiciled in Europe, operating 120 cruise ships with a capacity of around 143,200 lower berths. Another 76 vessels with a capacity of nearly 97,000 lower berths were deployed in Europe by 25 non-European lines. Nearly 6 million European residents booked cruises, a 9% increase over 2010, representing around 30% of all cruise passengers worldwide. An estimated 5 million passengers embarked on their cruises from a European port, a 7% increase over 2010. Of these around 5 million were European nationals and about 1 million came from outside Europe.

The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 28.1 million passenger visits at around 250 European port cities, a 10% increase over 2010. In addition, an estimated 14 million crew also arrived at European ports.

In 2012 there was an increase in the embarkation of the passengers in the European ports comparatively to the previous years. While in 2009 there were 4,8 million passengers, in 2010 the number increased to 5,2 million. In 2011 the passengers' embarkation from European ports was 5,6 million and in 2012 5,7 million passengers embarked in cruise ships from European cruise ports.

2. Literature Review

This paper includes an analysis of the cruise revenue derived from passengers' expenditures in the European cities of embarkation. There are many papers focused on the cruise industry and its economic impact, but few papers analyzed the cruise passengers' expenditures. There are papers about cruise destinations (Raguž et al., 2012) and others dealing with the competitiveness of the cruise market (Ellis and Kriwoken, 2006). Rodrigue and Notteboom (2013) talked about the regional concentration of the global cruise port system and the deployment of the global cruise fleet.

Brida and Zapata (2008) and Styliadis (2012) analyzed the economic significance of cruise tourism and Bartolome et al. (2009) talked about the significance of the Western Mediterranean waters. Torbianelli (2010) and Pastena (2011) analyzed the economic growth of the Mediterranean cruise market.

Nowadays, cruising is a completely different from the original activity back at the 1970s (Bull, 1996). Cruise is an interesting case of a complex globalized industry in an environment of international competition, capital mobility and labor migration (Douglas and Douglas, 2004; Wood, 2000; Bull, 1996). The structure of the cruise market can be considered either as an oligopoly or as a monopolistic competition (Bull, 1996; Vogel, 2009). The cruise market is divided into three groups of companies: Carnival Group (43%), Royal Caribbean International (20%) and Star Cruises (8%) (Ashcroft, 2005).

According to the European Cruise Council (2010) a unique characteristic of the cruise industry is that its impacts, whether they are positive or negative, affect not only one destination but the whole cruise society. Cruise industry faces huge income flows for hosting countries yearly, of which about €14 billion have as final recipient the European economies. The effect in the development of ports are tremendous due to the high economic impact which is a result from the expenditures of cruisers and crews, the shore side staff (tour operations) the port dues and maintenance (Brida and Zapata, 2008).

The cruise industry's contribution to the national economy depends on the level of expenditure realized by the producers and consumers of the cruise product (Wilkinson, 1999). The economic impact of cruise tourism is spread to the whole economy via an income multiplier effect (Sinclair and Stabler, 1997). In order to identify the flows of the economic impact, someone should distinguish whether the port is a homeport or a stopover port (Vina and Ford, 1998).

Dwyer and Forsyth (1998) mention that someone has to take into account whether a cruise company is of foreign interests or the activity is developed by national companies. According to Dwyer and Forsyth (1998) a major classification can be among mainland's ports and small islands. Lundberg (1990) talked about six phases of tourism development which are the rapid growth, the short-run success, the awareness of problems, the tourism recession, the difficulties and the reflection.

Dwyer et al. (2004) and Zhou et al. (1997) found that input – output analysis although it is the oldest, however, is the most widely used methodology for the

systematic quantification of the relations among different industries and sectors. Briassoulis (1991) mention that the main advantage of the model is that provides a holistic picture of the economic structure of a region and it describes how industries interact with each other (Kwak et al., 2005). Policy makers can evaluate alternative policy scenarios and estimate the effects that a change in final demand can cause to general production level (Livas, 1994).

3. Economic Impact of the European Cruise Sector

Cruise tourism faces several benefits to the social and economic development. This kind of tourism can benefit the national economies of the different countries involved in cruise tourism by improving foreign exchange earnings, taxes, employment, and externalities. Many papers have been reported on the economic impacts of the whole cruise industry. Some of them exemplify the economic impact for the economies of Central America and especially for the case of Puerto Rico (Seidl, et al., 2006).

The cruise sector is affected by many areas of the economy, such as the maritime and tourist agents, the port authorities, oil, towage and shipping companies and the shipbuilding in general. The effects from the cruise industry have a multiplier character. There is an interaction among the cruise industry and many parts of the whole economy. The industry interact with the wholesale and retail trade, with a number of activities such as financial and insurance, real estate, accommodation and food services, waste management and remediation activities. It is also interacts with the construction, education, agriculture, forestry and fishing, arts and recreation, education, electricity and air-conditioning and mining. The inflows of new money can support the economy by creating new employment, increasing profits and soliciting investments (Brida and Zapata, 2008).

The cruise industry affects the economies in a positive or negative way in terms of economic, environmental and socio-cultural aspects. Positive economic effects may derive from an increase in the tax revenues from the passengers' consumption of food and services, an increase in the number of jobs in the regions where cruise is active, an increase of the citizens' salary and finally from infrastructure improvements. On the other hand, negative economic effects may derive from an increase in the prices of goods and services due to an increasing

demand, unequal distribution of economic benefits to residents, revenue leakage in companies outside the area of cruise activity and seasonal income for workers.

Moreover, the cruise industry affects the economies in a direct, indirect and induced way. Direct impacts derive from suppliers' transactions with the cruise ships, their passengers and crew. The cruise ships' expenditures include port, fuel and maintenance expenditures. The passengers' expenditures include taxes, souvenirs, onshore excursions, food and beverages, transportation etc. Finally, the crew's expenditures include consumables, transportation and recreation activities.

Indirect impacts are caused by trade suppliers and the interrelation of the industries' expenditures. If a port wants to enhance its services by constructing a new dock, it will need to employ a construction company (Styliadis, 2012).

Finally, induced impacts are the result of the household spending of those who are directly or indirectly employed by the cruise industry. Cruise lines, passengers and crews are three categories of purchasers who are the main generators for the local communities.

During 2009, in Europe there were 188 cruise ships in the European waters with a capacity of nearly 203.000 lower berths. About 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 24 million passenger visits at European port cities. Also, about 12 million crew arrived at European ports. Generally, in 2009 there were €14 billion spending by cruise lines, their passengers and crew, €34 billion in total output, 296,288 jobs (full time) and €9 billion in employee compensation² (European Cruise Council, 2010).

In 2009 the European cruise industry generated direct expenditures of about €14.1 billion. Of them, about €4.6 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €5 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3 billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit was about €60 (European Cruise Council, 2010).

² Compensation is the sum of wage and salary payments, benefits, including health and life insurance, retirement payments and any other non-cash payments; includes all income to workers paid by employers.

During 2010, in Europe there were 198 cruise ships in the European waters with a capacity of nearly 218,000 lower berths. More than 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating about 25 million passenger visits at European port cities. Also, about 13 million crew arrived at European ports. Generally, in 2010 there were about €14 billion spending by cruise lines, their passengers and crew, nearly €35 billion in total output, 307,526 jobs (full time) and about €9 billion in employee compensation (European Cruise Council, 2011).

In 2010 the European cruise industry generated direct expenditures of about €14 billion. Of them, about €4 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €6 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3 billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit was about €61, while the crew spending at each port visit was about €16 per crewmember (European Cruise Council, 2011).

During 2011, in Europe there were 196 cruise ships in the European waters with a capacity of nearly 240,200 lower berths. More than 5 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 28 million passenger visits at European port cities. Also, about 14 million crew arrived at European ports. Generally, in 2011 there were €15 billion spending by cruise lines, their passengers and crew, about €36 billion in total output, 315,500 jobs (full time) and €10 billion in employee compensation (European Cruise Council, 2012).

In 2011 the European cruise industry generated direct expenditures of about €15 billion. Of them, about €4 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €6 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3 billion concerned cruise passenger and crew spending and €1 billion in wages and salaries plus benefits. Passengers spent an average of nearly €70 in embarkation port cities (excluding airfares) and their spending at each port visit

was about €61, while the crew spending at each port visit was about €16 per crewmember (European Cruise Council, 2012).

During 2012, in Europe there were 207 cruise ships in the European waters with a capacity of nearly 249,000 lower berths. About 6 million passengers embarked from a European port to start their cruise trip. The vast majority of these cruises visited ports in the Mediterranean, the Baltic and other European regions, generating 29 million passenger visits at European port cities. Also, about 15 million crew arrived at European ports. Generally, in 2011 there were about €15 billion spending by cruise lines, their passengers and crew, €38 billion in total output, 326,904 jobs (full time) and €10 billion in employee compensation (Cruise Lines International Association, 2013).

In 2012 the European cruise industry generated direct expenditures of about €15 billion. Of them, about €4 billion concerned spending for the construction of new cruise ships and maintenance and refurbishment of existing cruise ships. Another €6.6 billion concerned spending by cruise lines for goods and services in support of their cruise operations, about €3.5 billion concerned cruise passenger and crew spending and €1.4 billion in wages and salaries plus benefits. Passengers spent an average of nearly €77 in embarkation port cities (excluding airfares) and their spending at each port visit was about €62, while the crew spending at each port visit was about €21 per crewmember (Cruise Lines International Association, 2013).

Europe faces an increase in its total economic growth through the years 2009 – 2012 (table 1). In 2012, the direct expenditures were €15.5 billion comparatively to the €14.1 billion in 2009 and the same happens with the direct compensation with an increase of 9.3% from 2009 to 2012. The total European economic benefit from the cruise activity in 2012 amounts to €38 billion, an increase of about 11% from 2009 where the total economic benefit was about €34 billion. As a result, the total jobs have increased significantly (326,904 in 2012 comparatively to 296,288 in 2009).

Table 1: Total Economic Impact of the European Cruise Sector

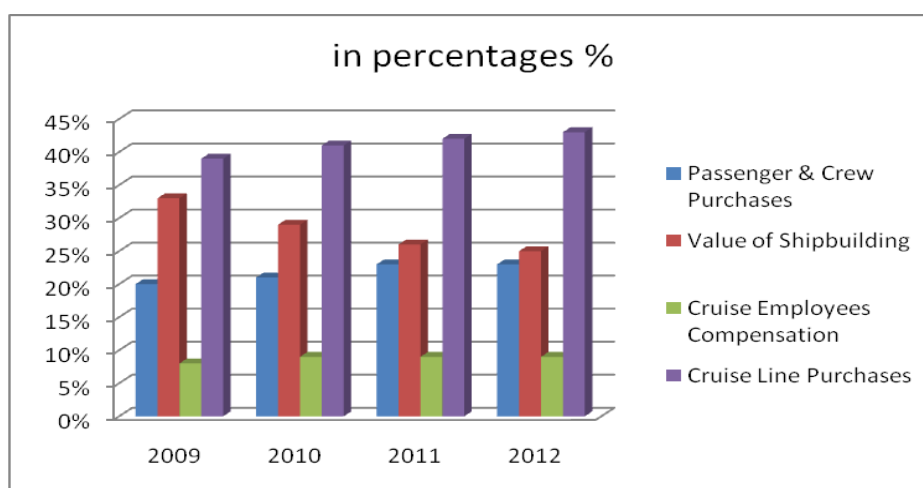
	2009 (€ billion)	2010 (€ billion)	2011 (€ billion)	2012 (€ billion)	Change 2012 vs 2009
Direct Expenditures	14.1	14.5	15.0	15.5	+9.9%
Direct Compensation	4.3	4.4	4.6	4.7	+9,3%
Total Compensation	9	9.3	9.8	10	+11,1%
Total Economic benefit	34.1	35.2	36.7	37.9	+11,1%
No. of direct jobs	143,233	150,401	153,012	158,654	+10,7%
Total jobs	296,288	307,506	315,500	326,904	+10,3%

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

The cruise industry expenditures in Europe are as follows (graph 1 a, b). Cruise line purchases play the leading role in the industry's expenditures following by the value of shipbuilding. The passenger and crew expenditures come third and the cruise employees' compensation is following.

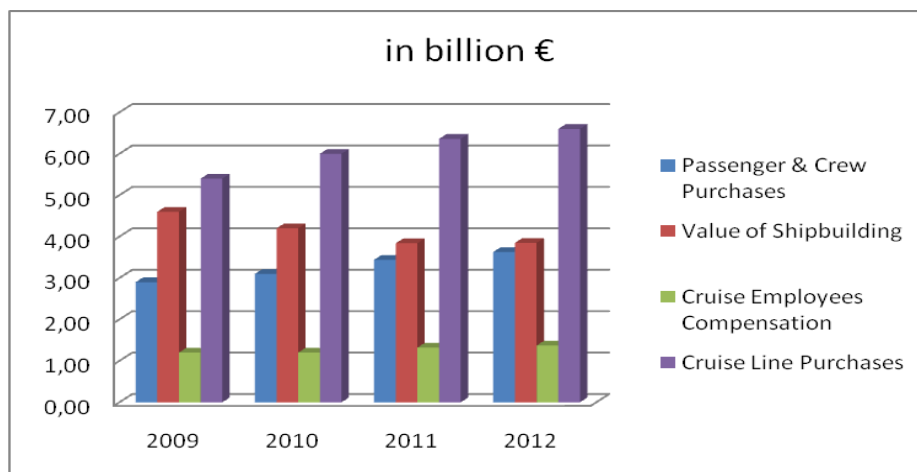
**Graph 1: Direct Cruise Industry Expenditures in Europe by sector
(in percentages and in billions)**

a.



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

b.



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

Passengers and crew spent €2.9 billion in 2009, €3.1 billion in 2010, €3.44 billion in 2011 and €3.63 billion in 2012 at ports of embarkation and ports of call (transit ports).

The global cruise industry spent €4.60 billion in 2009, €4.20 billion in 2010, €3.84 billion in 2011 and €3.85 billion in 2012 for building and construction of cruise ships. There is a decrease in the value of shipbuilding from 2009, whereas expenditures for new construction and maintenance remained unchanged from 2011 (+0.3%). Expenditures for new constructions declined in France and Italy during 2012 (32% and 12% respectively) and an increase is noticed in Germany and Finland (18% and 37% respectively).

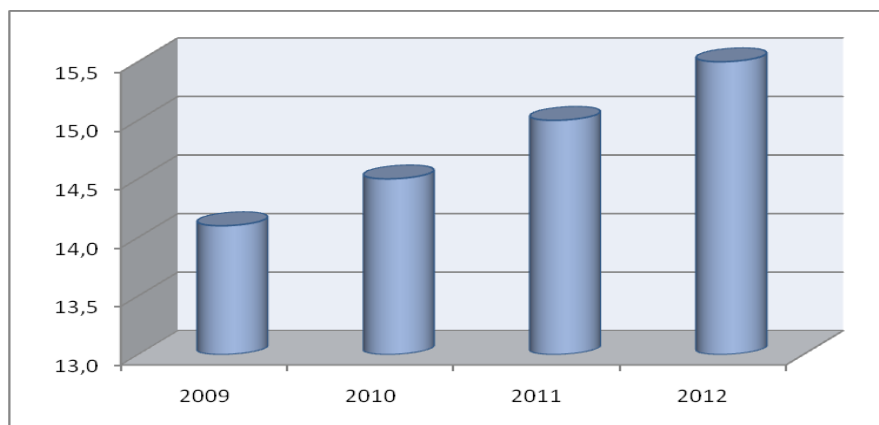
Cruise lines in Europe spent €1.2 billion in 2009 and in 2010, €1.32 billion in 2011 and €1.37 billion in 2012 on compensation for employees who resided in Europe. The cruise lines employed about 51.000 European residents in 2009 in their administrative offices and as crew on board, 55.000 in 2010, 57.000 in 2011 and 60.600 in 2012, an increase of 18.8% from 2009 to 2012.

Cruise lines spent €5.40 billion in 2009, €6 billion in 2010, €6.36 billion in 2011 and €6.6 billion in 2012. These purchases included products and services. Food and beverage manufacturers produce €624 million in provisions that consumed on cruise ships by passengers and crew. The manufacture of metals and machinery spent

another €840 million and this includes material handling equipment, engines, lighting equipment, communication equipment and computers. Finally, the cruise industry spent about €1.28 billion on financial and business services including advertising, engineering and other professional services, computer programming and support services and direct mail and market research.

In general, the total direct cruise industry expenditures in Europe go up to €14.1 billion in 2009, €14.5 billion in 2010, €15 billion in 2011 and €15.5 billion in 2012 (Graph 2). The European cruise industry faced an increase from 2009 to 2012 of about 10% in terms of direct expenditures.

Graph 2: Direct Cruise Industry Expenditures in Europe (in billion €)



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

4. Cruise Passengers' embarkation in the major European ports

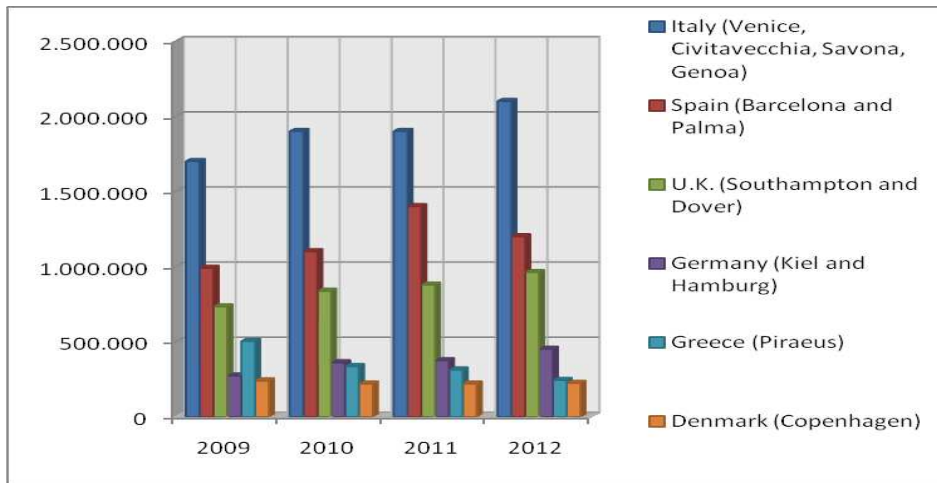
According to the economic report of the European Cruise Council (2010), in 2009 over 4.8 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa and Civitavecchia) with 1.7 million passenger embarkations. Second place belongs to Spain with over 990,000 embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 733,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Greece with the port of Piraeus as the leading port, Germany and the ports of Hamburg and Kiel and Denmark with the port of Copenhagen as the leading port. The Greek ports generated 503,000 embarkations, Germany 273,000 and Denmark 240,000.

In 2010 5.3 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa and Civitavecchia) with 1.9 million passenger embarkations. Second place belongs to Spain with over 1.1 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 837,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Hamburg and Kiel, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 361,000 embarkations, Greek ports generated 336,000 embarkations and Denmark 220,000 (European Cruise Council, 2011).

In 2011 nearly 5.6 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Savona, Genoa and Civitavecchia) with 1.9 million passenger embarkations. Second place belongs to Spain with 1.4 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 878,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Kiel and Hamburg, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 375,000 embarkations, Greek ports generated 313,000 embarkations and Denmark 220,000 (European Cruise Council, 2011).

In 2012 nearly 5.77 million cruise passengers embarked on their cruises from European port. The leader markets were Italian ports (Venice, Civitavecchia, Savona and Genoa) with 2.1 million passenger embarkations. Second place belongs to Spain with 1.2 million passenger embarkations with Barcelona and Palma being Spain's major embarkation ports. The United Kingdom comes after Spain with 962,000 embarkations with Southampton and Dover as the principal embarkation ports. Finally, the next three most important embarkation countries were Germany and the ports of Kiel and Hamburg, Greece with the port of Piraeus as the leading port, and Denmark with the port of Copenhagen as the leading port, too. Germany generated 451,000 embarkations, Greek ports generated 244,000 embarkations and Denmark 224,000 (Cruise Lines International Association, 2013) (graph 3).

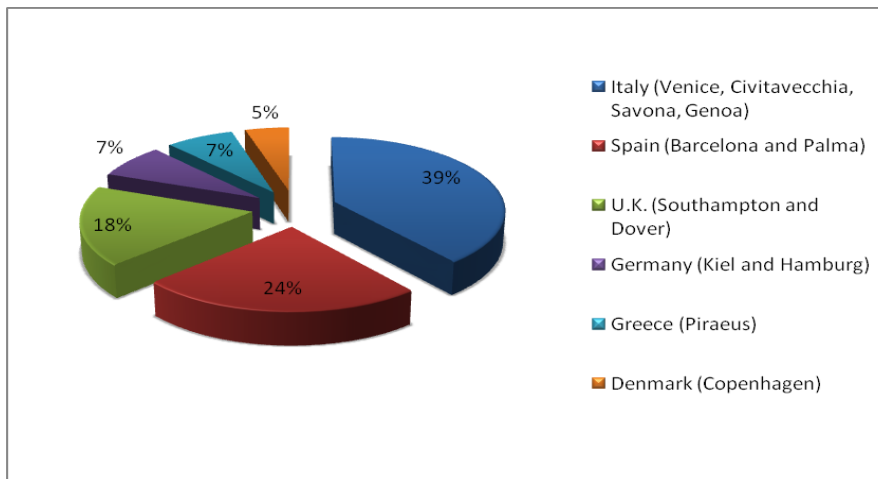
Graph 3: Passengers' embarkation at major European cities-ports



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

The total passengers' embarkation at the major European ports from 2009-2012 is illustrated in the next graph (graph 4).

Graph 4: Total passengers' embarkation at major European cities-ports, 2009-2012



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

5. Direct revenue in the European cities of embarkation through passengers' expenditures

There are different techniques someone can use in order to calculate the economic impacts. One of them is the multiplier analysis including the input - output analysis, the “economic base” method and the Keynes multiplier. Furthermore, other techniques refer to integrated models, which include the input – output analysis and other econometric techniques. Finally, we can calculate the economic impacts through the “Computable General Equilibrium (CGE) modeling” which illustrates the reaction of the economic changes in external shock.

In order to find the direct revenue from the passengers' expenditures we can calculate them as follows:

$$R_d = N_p * AE,$$

Where:

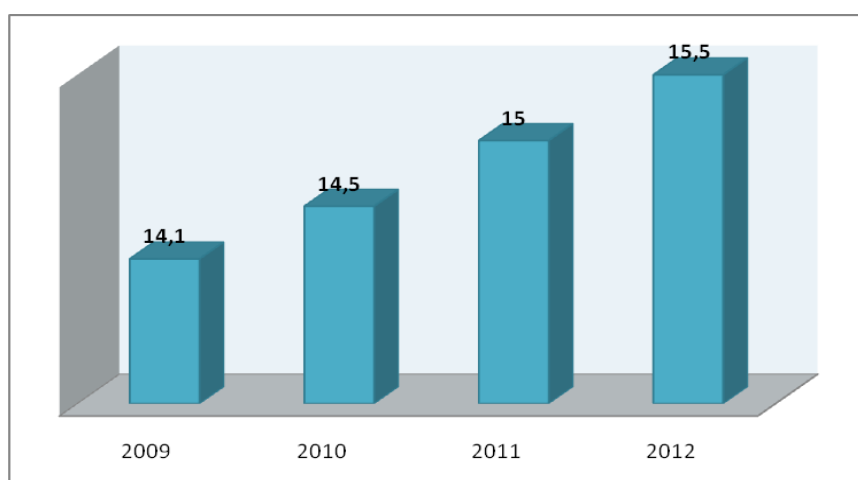
R_d is the direct revenue;

N_p is the number of passengers and

AE is the average expenditure

In 2009 the European cruise industry generated direct expenditures of about €14.1 billion, in 2010 about €14.5 billion, in 2011 an amount of about €15 billion and in 2012 the European cruise industry generated direct expenditures of about €15.5 billion (graph 5).

Graph 5: Direct Expenditures (in € billion)



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

In 2009, about 4.8 million passengers embarked from a European port to start their cruise trip. Passengers spent an average of nearly €70 in embarkation port cities. In 2010, about 5.2 million passengers embarked from a European port and the passengers spent an average of nearly €70 in embarkation port cities. In 2011, about 5.6 million passengers embarked from a European port to start their cruise trip. Passengers spent an average of nearly €74 in embarkation port cities. Finally, in 2012 about 5.7 million passengers embarked from a European port and the passengers spent an average of nearly €77 in embarkation port cities (table 2).

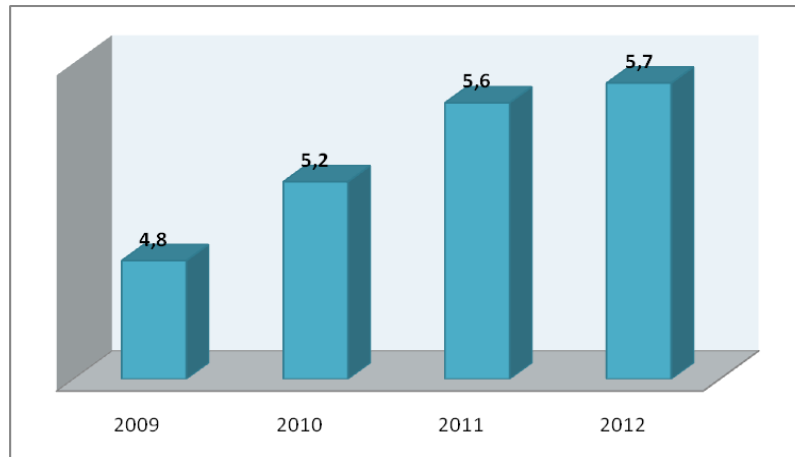
Table 2: Passengers' embarkation and average spending

	2009	2010	2011	2012
Passengers' embarkation from a European port (million)	4.8	5.2	5.6	5.7
Passengers' average spending at embarkation port cities (€ per person)	70	70	74	77

Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

The following graph represents the increase in the number of passengers' embarkation from European ports from 2009 to 2012 (graph 6).

Graph 6: No. of passenger's embarkation from European ports (in millions)



Source: Own formatting (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

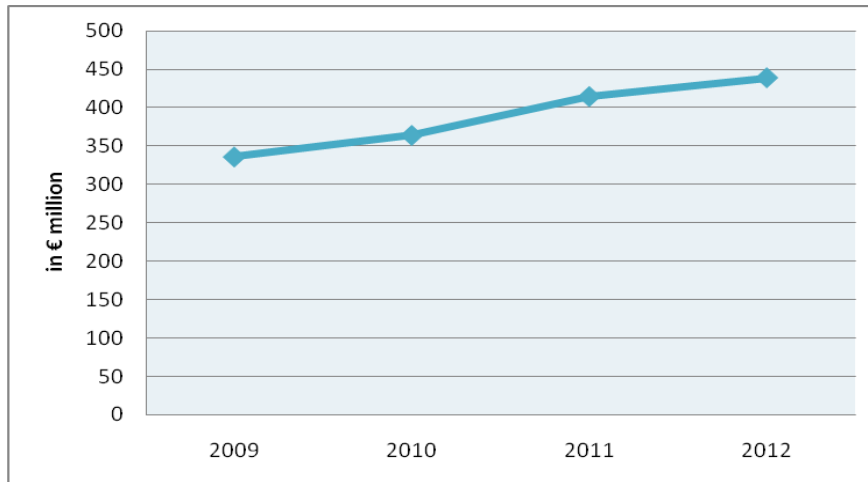
Following the above equation, we found that the total direct revenue in ports of embarkation through the passengers' expenditures was €336 million in 2009, €364 million in 2010, €414.4 million in 2011, €438.9 million in 2012 and the total direct revenue from 2009 – 2012 amounted to €1.55 billion (table 3; graph 7).

Table 3: Direct Revenue in embarkation cities from passengers

	2009	2010	2011	2012	Total Direct Revenue 2009-2012
Np (million)	4.8	5.2	5.6	5.7	
AE (in €)	70	70	74	77	
Rd (€ million)	336	364	414.4	438.9	€1.55 billion

Source: Authors

Graph 7: Direct Revenue in embarkation cities from passengers



Source: Authors (based on data from the European Cruise Council, 2010; 2011; 2012 and the Cruise Lines International Association, 2013)

6. Conclusions

This paper develops a framework in which the European Cruise Industry is analyzed. This framework applied mostly to the European Cruise Market and the significance and impacts of the cruise industry. The purpose of this paper is to calculate the direct economic impacts through the passengers' expenditures in the European ports of embarkation. The cruise sector of Europe is examined, in terms of direct economic revenue and passengers' expenditures.

From our analysis of the economic impacts it was found that there was an increase of the total economic benefits in 2012 comparatively to 2009 by 11,1%. The direct expenditures have also increased through the examining years and the same happened with the total jobs in the European cruise sector (from 296,288 in 2009 to 326,904 in 2012). Cruise line purchases play the leading role in the industry's expenditures following by the value of shipbuilding. The passenger and crew expenditures come third and the cruise employees' compensation is following.

Among the different European cruise destinations, Italy is the leader market owning the 39% of the total passengers' embarkation and Spain is following with 24%. The U.K. comes in the third place with 18% of the total embarkations, following by Germany and Greece (7% both) and Denmark (5%).

During our analysis of the direct passengers' expenditures in the European cities of embarkation, we found that in 2009 the direct revenue in embarkation cities was €336 million and in 2010 was €364 million. In 2011 the direct revenue increased up to €414.4 million and in 2012 the European cities of embarkation faced total direct revenue of €438.9 million. The total direct revenue generated from passengers' expenditures from 2009 to 2012 was €1.55 billion. The increase of the direct revenue in embarkation cities was about 8.3% in 2010 comparatively to 2009. In 2011 there was an increase in terms of direct revenue of nearly 13.8% comparatively to the previous year. Accordingly, in 2012 we can observe an increase in direct revenues of about 5.9% compared to 2011. Generally, from 2009 to 2012 we found a total increase of direct revenue in the European cities of embarkation of nearly 30.6%. This increasing number shows that more and more cruise passengers from all over the world choose European countries as a cruise destination.

The cruise industry plays a very important role for the economies of the European countries. It increases its total European revenue and its economic and social impact and contribution by sustaining jobs in European shipyards, creating employment in European ports and acting as a catalyst for European tourism. Due to this economic growth that we described, European countries that involve with the cruise industry have to continue focusing on this particular field of tourism and invest much more money to this crucial economic sector.

References

- Ashcroft, C. (2005). *Overview of the global cruise industry, in European Cruise Council* (eds). The ECC 2004/2005 annual review, Ashcroft & Associates Ltd., UK.
- Bartolome, A., McAleer, M., Ramos, V. and Rey-Maqueira, J. (2009). *Cruising is risky business*, CIRJE Discussion paper. [<http://www.cirje.e.u-tokyo.ac.jp/research/dp/2009/2009cf664.pdf>], (Site accessed 15 April 2014).
- Briassoulis, H. (1991) Methodological issues. Tourism input–output analysis, *Annals of Tourism Research*, Vol. 18, pp. 485-495.
- Brida, J. and Zapata, S. (2008). *The Impacts of the Cruise Industry on Tourism Destinations*, University of Bolzano, Monza, Italy.
- Bull, O. A. (1996). The economics of cruising: An application to the short ocean cruise market, *The Journal of Tourism Studies*, Vol. 7, No. 2, pp. 28-35.
- Chin, C. B. N. (2008). *Cruising in the global economy: Profits, pleasure and work at sea*, Aldershot, Ashgate, England.
- Cruise Lines International Association (CLIA) (2013). *The Cruise Industry. Contribution of Cruise Tourism to the Economies of Europe*.
- Douglas, N. and Douglas, N. (2004). Cruise ship passenger spending patterns in Pacific island ports, *International Journal of Tourism Research*, Vol. 6, pp. 251-261.
- Dwyer, L and Forsyth, P. (1998). Economic Significance of Cruise Tourism, *Annals of Tourism Research*, Vol. 25, No. 2, pp. 393-415.
- Dwyer, L., Forsyth, P. and Spurr, R. (2004). Evaluating tourism's effects: New and old approaches, *Tourism Management*, Vol. 25, pp. 307-317.
- Ellis, C. and Kriwoken, L. K. (2006). Off the beaten track: A case study of expedition cruise ships in south-west Tasmania, Australia, in Dowling, R. K., (eds), *Cruise Ship Tourism*, pp. 251-258, CABI, Oxfordshire.
- European Cruise Council (ECC) (2010) *Contribution of Cruise Tourism to the Economies of Europe*.
- European Cruise Council (ECC) (2011) *The Cruise Industry: A Leader in Europe's Economic Recovery*.
- European Cruise Council (ECC) (2012). *Cruise Industry: Contribution of Cruise Tourism to the Economies of Europe*.

- Hobson, J. S. P. (1993). Analysis of the US Cruise Line Industry, *Tourism Management*, Vol. 13, pp. 453-462.
- Kwak, S. J., Yoo, S. H. and Chang, J. I. (2005). The role of the maritime industry in the Korean national economy: An input–output analysis, *Marine Policy*, Vol. 29, pp. 371-383.
- Livas, P. C. (1994). *Input output analysis*, Stamoulis, Piraeus (in Greek).
- Lundberg, D. E. (1990). *The tourist business*, 6th ed., Van Nostrand-Reinhold, New York.
- Pastena, L. (2011). *Modernizing the Med*, World Cruise Industry Review, Valletta, Malta.
- Peisley, T. (1992). *World Cruise Ship Industry in the 1990's*, Economist Intelligence Unit, London.
- Raguž, I. V., Perucic, D. and Pavlic, I. (2012). Organization and Implementation of Integrated Management System Processes - Cruise Port Dubrovnik, *International Review of Management and Marketing*, Vol. 2, No. 4, pp. 199-209.
- Rodrigue, J.P. and Notteboom, T. (2012). The geography of cruises: Itineraries, not destinations, *Applied Geograghy*, Vol. 38, pp. 31-42.
- Seidl, A., Guiliano, F. and Pratt, L. (2006). Cruise Tourism and Economic Development in Central America and the Caribbean: The case of Costa Rica, *Revista de Turismo y Patrimonio Cultural*, Vol. 4, No. 2, pp. 213-224.
- Sinclair, T. M. and Stabler, M. (1997). *The economics of tourism*, Routledge, New York.
- Styliadis, T. (2012). *Greek Sea is not in Crisis. An institutional approach of the economic impact cruise ships have on local societies: the case of two Ionian Islands*, Master Thesis, Erasmus University, Rotterdam.
- Torbianelli, J. (2010). *Mediterranean Cruises as Drivers of Investment and Relations between Ports and Cities*, University of Trieste, Trieste.
- Vaggelas, G. (2011). *Cruise Tourism: Economic Benefits, Sustainable Development and Port City*, Plan Bleu Regional Seminar – Tourism and sustainable development in the Mediterranean, Genoa, Italy.
- Vina, L. and Ford, J. (1998). Economic impact of proposed cruise ship business, *Annals of Tourism Research*, Vol. 25, pp. 205-221.

- Vogel, M. (2009). *Onboard revenue: The secret of the cruise industry's success?*, in Papathanassis, A. (eds), *Cruise sector growth: Managing emerging markets, human resources, processes and systems*, pp. 3-15, Gabler, Wiesbaden.
- Weaver, A. (2005). The McDonaldization thesis and cruise shipping, *Annals of Tourism Research*, Vol. 32, No. 2, pp. 346-366.
- Wild, P. and Dearing, J. (2000). Development of and prospects for cruising in Europe, *Maritime Policy and Management*, Vol. 27, No. 4, pp. 315-337.
- Wilkinson, P. (1999). Caribbean cruise tourism: Delusion? Illusion?, *Tourism Geographies*, Vol. 1, pp. 261-282.
- Wood, R. E. (2000). Caribbean cruise tourism: globalization at sea, *Annals of Tourism Research*, Vol. 27, No. 2, pp. 345-370.
- Zhou, D., Yanagida, F., Chakravorty, U. and Leung, P. (1997). Estimating the economic impacts from tourism, *Annals of Tourism Research*, Vol. 24, No. 1, pp. 76-89.