

Quantitative Analysis of Maritime Passenger Transport in Europe

Kvantitativna analiza pomorskog putničkog prometa u Europi

Vlatka Stupalo

University of Zagreb
Faculty of Transport and Traffic Sciences
e-mail: vstupalo@fpz.hr

Alen Jugović

University of Rijeka
Faculty of Maritime Studies
e-mail: ajugovic@pfri.hr

Ante Mrvica

Jadrolinija
Agency Split
e-mail: ante.mrvica@jadrolinija.hr

DOI 10.17818/NM/2016/4.2

UDK 656.61 (4)

Review/ Pregledni rad

Paper accepted / Rukopis primljen: 11. 2. 2016.

Summary

Maritime passenger transport is an important form of passenger transport, both for business and pleasure, but is often neglected in scientific literature. The main goal of this paper is to emphasize the importance of maritime passenger transport in Europe. In order to identify its main features and actors, i.e. the leading European countries and ports in the maritime passenger transport, separately for cruise and non-cruise transport, a quantitative analysis was carried out based on the data gathered from Eurostat and CLIA Europe. It was concluded that the features of maritime passenger transport in two main European regions, the Mediterranean and Northern Europe, differ significantly. Therefore, the final analysis of maritime passenger transport in Europe was conducted for each region separately.

KEY WORDS

maritime ports
passenger
cruise
ferry
Europe

Sažetak

Pomorski putnički promet važan je oblik putničkog prometa, za potrebe posla i zabave, ali je često zanemaren u znanstvenoj literaturi. Glavni je cilj ovog rada ukazati na važnost pomorskog putničkog prometa u Europi kako bi se utvrdila njegova glavna obilježja i akteri, tj. vodeće zemlje i luke pomorskog putničkog prometa u Europi, posebno za putnike na kružnim putovanjima i putnike u linijskom prometu. Primjenjena je kvantitativna analiza kojom su analizirani podaci prikupljeni iz Eurostata i CLIA Europe. Tijekom analize zaključeno je da se obilježja pomorskog putničkog prometa razlikuju u dvjema glavnim europskim regijama, Mediterana ili južne Europe i sjeverne Europe. Stoga je konačna analiza pomorskog putničkog prometa u Europi provedena za svaku ovu regiju odvojeno.

KLJUČNE RIJEČI

morske luke
putnik
kružna putovanja
linijski putnički promet
Europa

1. INTRODUCTION / Uvod

Regarding the design and organizational aspect of business operation, maritime passenger ports can be classified as follows: liner and cruise [1, p. 96]. Eurostat database is structured in similar way as this classification, i.e. in the database two types of data are contained, cruise and non-cruise maritime passengers. Maritime passenger is defined by Eurostat as „...any person who makes a sea journey on a merchant ship, excluding members of the vessel's crew.“ Cruise passengers are defined as sea passengers making a sea journey on a cruise ship, excluding passengers on day excursions, while a non-cruise passengers are defined as sea passengers other than cruise passengers [15, p. 24].

Cruise passengers are transported by cruise ships, while non-cruise passengers by ferries. Ferry vessel is defined by Interferry [22] as a vessel used to transport passengers and/or vehicles across a body of water on a regular, frequent basis. The term ferry does not include: i) vessels that do not operate on a regular schedule, ii) vessels that normally carry only unaccompanied freight vehicles, e.g. ro-ro freight vessels, iii) vessels that operate on routes greater than 24 hours in duration,

e.g. cruise ships, and iv) vessels whose main purpose is not the transport of passengers/vehicles from point A to point B, e.g. cruise ships.

In scientific literature maritime passenger transport is not considerably present. Among few authors are Vaggelas and Pallis [5] who conducted a survey among top 20 European passenger ports in order to identify and classify different services provided in passenger ports, Asić [1] who analysed passenger ports efficiency in the Republic of Croatia and Luković [3] who analysed cruise industry with emphasis on cruise operators and cruise companies.

In order to identify main features of maritime passenger transport in Europe, a quantitative analysis of the European maritime ports was conducted in this paper based on statistical records obtained from Eurostat database and reports from Cruise Lines International Association Europe (hereinafter: CLIA Europe). Total maritime passenger turnover in European countries was analysed separately for ferry and only cruise ports.

Only these two databases were used in order to ensure

reliability and complementarity of the statistical data used in the analysis of the European ferry ports and of the European cruise ports. Eurostat database¹ presents data for 28 EU countries: countries of European Economic Area - EEA (Iceland and Norway) and candidate countries (Turkey). Out of 28 EU countries 23 provide data on maritime passenger traffic, while other countries don't have maritime ports on their national territory. Eurostat database was analysed during December 2015 and January 2016. Since data on ferry passengers for 2014 was only partial, maritime transport of ferry passengers was analysed based on 2013 data. On the other hand, CLIA Europe Economic Contribution Report contained complete data for 2014, thus the cruise ports were analysed with respect to 2014.

2. EUROPEAN MARITIME PASSENGER PORTS / *Europske morske putničke luke*

Maritime passenger transport in the EU-28 followed a downward curve for four consecutive years, from 2008 till 2012. In 2013 EU-28 maritime ports handled almost 400 million maritime passengers showing a 0.5% increase compared to 2012. But this number is still lower than maximal maritime passenger transport handled in 2008 of 438.9 million maritime passengers [cf. 14].

In 2013 Italian and Greek ports accounted for more than one-third of EU-28 maritime passenger transport (Table 1). Italy accounted for 18.32% (73.24 mil.) and Greece for 18.24% (72.92 mil.) of total EU-28 maritime passenger transport (399.67 mil.). Denmark ranked third with 40.97 million passengers (10.25%), followed by Germany (7.47%), Sweden (7.29%), United Kingdom (6.87%), Croatia (6.84%), France (6.41%) and Spain (5.72%).

The importance of maritime passenger transport for an individual country can be seen from the analysis of the ratio between the number of passengers and national population (on 1 January 2013). Based on the analysis (Table 1) it can be concluded that the maritime passenger traffic in 2013 was most significant for Malta (21.76 passenger per capita), followed by Estonia (9.96), Denmark (7.31), Greece (6.63) and Croatia (6.42). It was less important for Finland (3.41), Sweden (3.05), Italy (1.23) and Norway (1.18), while for other European countries it presented less than one passenger per inhabitant. On the EU-28 level 0.79 passengers per inhabitant were recorded. Since five EU-28 countries don't have maritime ports further analysis was performed by taking into account only national population of countries with maritime ports, and in this case the value increased to 0.85 passengers per inhabitant.

EU countries are divided in 276 regions on NUTS 2 level [20], out of which 144 have access to sea. In Eurostat 2013 database out of these 144 regions only 126 submitted data on maritime passenger traffic. In 13 regions turnover was over 10 million passenger [9]. The highest turnover was registered in Greek's NUTS 2 level region Atikki (24.39 million maritime passengers), followed by the Croatian region Jadranska Hrvatska (the Adriatic part of Croatia) (13.23 million), United Kingdom's region Kent (12.76 million), France region Nord-Pas-de-Calais (12.67 million) and Swedish region Sydsverige (12.06 million).

In order to identify which type of passengers (cruise or non-cruise) were mainly represented in which European countries and maritime ports further analysis was performed.

Table 1 Maritime passenger transport in Europe per country and number of maritime passengers per inhabitant in 2013
Tablica 1. Pomorski putnički promet u europskim zemljama i broj pomorskih putnika po stanovniku 2013.

Country	Total number of maritime passengers (in thousands)	Passengers per inhabitant	Country	Total number of maritime passengers (in thousands)	Passengers per inhabitant
EU-28	399,674	0.79			
Italy	73,238	1.23	Netherlands	1,738	0.10
Greece	72,918	6.63	Latvia	872	0.43
Denmark	40,968	7.31	Belgium	859	0.08
Germany	29,848	0.37	Portugal	555	0.05
Sweden	29,146	3.05	Lithuania	280	0.09
United Kingdom	27,472	0.43	Cyprus	99	0.11
Croatia	27,355	6.42	Slovenia	28	0.01
France	25,637	0.39	Bulgaria	2	0.00
Spain	22,871	0.49	Romania	0	0.00
Finland	18,524	3.41	EEA		
Estonia	13,146	9.96	Island	:	
Malta	9,170	21.76	Norway	5,975	1.18
Ireland	2,747	0.60	Candidate countries		
Poland	2,201	0.06	Turkey	2,058	0.03

Source: compiled by the Authors from Eurostat [10, 13]

¹ Eurostat collects data from national statistical authorities in the reporting countries (e.g. national statistical offices, ministries of transport, national maritime administrations, national port administrations, etc.). Methodology of data collection is defined by directives, decisions and regulations of European Commission, Parliament and Council. Each time when Eurostat receives data from reporting country quality checks are performed [cf. 15].

3. EUROPEAN FERRY PORTS / *Europske morske luke linijskog putničkog prometa*

In 2013 the leading European countries in maritime passenger transport, excluding cruise passengers, were Italy and Greece (Table 2). These countries also ranked first when cruise passengers were included (Table 1). Looking at both rankings it can be seen that top 10 countries are the same in both tables, although their rankings are different. The first three places in both tables are kept by Italy, Greece and Denmark, while the order of other countries is different.

In 2014 the highest growth of maritime passenger transport, excluding cruise passengers (Table 2), was recorded in Turkey (5.68%), followed by Poland (5.43%) and Malta (5.32%). The most significant drop in maritime passenger transport was recorded in Denmark (-54.75%). The Eurostat metadata comment explaining this significant drop was unavailable, therefore this data in further analysis was considered unreliable. Denmark was followed by Croatia (-14.12%), Latvia (-13.74%), Belgium (-3.75%) and Spain (-0.09%).

Regarding the main national maritime passenger countries in Europe, excluding cruise passengers (Table 3), Italy's and Greece's ranking changed. Croatia ranked third when only national maritime passenger transport was considered, moving up seven places (Table 2) in comparison to the total

traffic (national and international). In 2013 Malta and Portugal did not register any international maritime passenger transport. They were followed by Croatia (96.33%), Greece (95.48%), Italy (87.73%) and Spain (68.70%). On the other hand, Ireland, Netherlands, Belgium and Lithuania only registered international maritime passenger transport. Although from the Table 3 it could be concluded that also Norway and Latvia registered only international maritime passenger transport, it must be noted that these two countries do not submit data for national passenger transport, so this information is not considered relevant. Mainly international traffic was handled in ports of Finland (96.80%), France (93.21%) and Sweden (90.60%), followed by United Kingdom (87.26%) and Poland (86.50%). Around 44% of European maritime passenger transport, excluding cruise passengers, is national transport (Table 3).

Northern European ports prevail (seven out of ten ports) among the 10 busiest European passenger maritime ports, excluding cruise passengers (Table 4). In 2013 these 10 ports achieved a total turnover of nearly 96 million passengers. Out of this, Northern Europe ports achieved 70% (\approx 67 million), while Southern (e.g. Mediterranean) ports achieved only 30% (\approx 29 million) of total turnover. However, this ratio is almost levelled when analysing the 20 busiest European passenger ports in the same year, which recorded a total turnover of over

Table 2 Maritime passenger transport per countries in Europe main ports, * excluding cruise passengers (in thousands)
Tablica 2. Pomorski putnički promet u zemljama u europskim glavnim lukama bez putnika na kružnim putovanjima (u tisućama)

Country ^{a)}	Country code	Year ^{b)}		Growth rate 2013-2014 (%)
		2013	2014	
European Union, 28 countries	EU-28	223,803	:	-
Italy	IT	36,452	36,728	0.75
Greece	EL	35,544	37,182	4.41
Denmark	DK	30,139	19,476	-54.75
Sweden	SE	28,596	28,759	0.57
France	FR	24,316	:	-
United Kingdom	UK	23,480	24,284	3.31
Germany	DE	21,059	22,000	4.28
Finland	FI	17,911	18,401	2.66
Spain	ES	14,832	14,819	-0.09
Croatia	HR	13,237	11,599	-14.12
Estonia	EE	10,944	11,353	3.60
Malta	MT	4,396	4,643	5.32
Ireland	IE	2,745	2,753	0.29
Poland	PL	1,741	1,841	5.43
Netherlands	NL	1,740	1,819	4.34
Latvia	LV	770	677	-13.74
Belgium	BE	387	373	-3.75
Lithuania	LT	280	280	0.00
Portugal	PT	248	252	1.59
European Economic Area	EEA			
Norway	NO	5,702	5,929	3.83
Candidate countries	can			
Turkey	TR	1,577	1,672	5.68
TOTAL (EU28 + EEA + can)	-	276,096	-	-

Special value: (:) value not available; (-) value could not be calculated due to the lack of input parameters.

* A main port is a statistical port which has annual movements of no less than 200,000 passengers.

a) EU countries Cyprus, Bulgaria, Romania and Slovenia are not listed because for both years data were not available or was equal to 0. For the same reason EEA country Iceland and candidate country Montenegro were not listed.

b) In Eurostat "Main ports" tables' total transport is calculated using specific algorithm in order to avoid double counting.

Source: compiled by the Authors based on Eurostat data [11, 12].

Table 3 European countries ranked by the highest volume of maritime national passenger transport in main ports, *excluding cruise passengers, in 2013

Tablica 3. Europske zemlje rangirane prema najvećem obujmu nacionalnog pomorskog putničkog prometa u glavnim lukama bez putnika na kružnim putovanjima 2013.

Rank	Country ^{a)}	Transport ('000) ^{b)}			National (%) (C) = (B) / (A) * 100	Rank	Country ^{a)}	Transport ('000) ^{b)}			National (%) (C) = (B) / (A) * 100
		Total (A)	National (B)					Total (A)	National (B)		
1	Greece	35,544	33,936	95.48	12	Finland	17,911	574	3.20		
2	Italy	36,452	31,981	87.73	13	Portugal	248	248	100.00		
3	Croatia	13,237	12,751	96.33	14	Turkey	1,577	244	15.47		
4	Spain	14,832	10,189	68.70	15	Poland	1,741	235	13.50		
5	Germany	21,059	10,128	48.09	16	Belgium	387	0	0.00		
6	Denmark	30,139	8,399	27.87	17	Ireland	2,745	0	0.00		
7	Malta	4,396	4,396	100.00	18	Latvia ^{c)}	770	0	0.00		
8	United Kingdom	23,480	2,991	12.74	19	Lithuania	280	0	0.00		
9	Sweden	28,596	2,687	9.40	20	Netherlands	1,740	0	0.00		
10	Estonia	10,944	1,957	17.88	21	Norway ^{c)}	5,702	0	0.00		
11	France	24,316	1,652	6.79	TOTAL	276,096	122,368	44.32			

* A main port is a statistical port which has annual movements of no less than 200,000 passengers.

a) EU countries Cyprus, Bulgaria, Romania and Slovenia are not listed because for both year data were not available or were equal to 0. For the same reason EEA county Iceland and candidate county Montenegro were not listed.

b) In Eurostat tables of "Main ports" total transport is calculated using specific algorithm in order to avoid double counting.

c) Data for Latvia and Norway only include information for passengers in international transport.

Source: compiled by the Authors from Eurostat [11].

152 million passengers. Out of this 20 ports, 11 are located in Mediterranean and achieved turnover of 73.92 million passengers (48%) in 2013, while ports of Northern Europe achieved turnover of 78.78 million (52%), a difference of 2% in favour of Northern Europe ports.

The busiest European maritime passenger port in 2013 was Dover with a turnover of more than 12 million passengers, followed by Helsinki with almost 11 million passengers. Ranked third and fourth were Greek ports of Paloukia Salaminas and Parama with 10.73 million passengers each. Although in 2013

Table 4 Maritime passenger transport in Europe's main ports, *excluding cruise passengers (in thousands)
Tablica 4. Pomorski putnički promet u europskim glavnim lukama bez putnika na kružnim putovanjima (u tisućama)

No.	Port	Country code	Location	Year		Growth rate 2013-2014 (%)
				2013	2014	
1	Dover	UK	Atlantic	12,741	13,286	4.10
2	Helsinki	FI	Baltic	10,754	11,455	6.12
3	Paloukia Salaminas**	EL	Mediterranean	10,725	10,612	-1.06
4	Perama**	EL	Mediterranean	10,725	10,612	-1.06
5	Calais	FR	Atlantic	10,372	:	-
6	Stockholm	SE	Baltic	8,833	9,882	10.62
7	Tallinn	EE	Baltic	8,711	9,082	4.09
8	Helsingborg	SE	Baltic	7,762	7,656	-1.38
9	Helsingør (Elsinore)	DK	Baltic	7,721	7,635	-1.13
10	Peiraias	EL	Mediterranean	7,415	7,892	6.04
11	Napoli	IT	Mediterranean	7,047	7,531	6.43
12	Messina	IT	Mediterranean	6,991	6,873	-1.72
13	Reggio di Calabria	IT	Mediterranean	6,759	6,186	-9.26
14	Capri	IT	Mediterranean	6,485	6,054	-7.12
15	Rødby (Færgenhavn)	DK	Baltic	5,943	6,003	1.00
16	Puttgarden	DE	Baltic	5,943	6,002	0.98
17	Algeciras	ES	Mediterranean	5,216	5,386	3.16
18	Cirkewwa	MT	Mediterranean	4,396	4,643	5.32
19	Mgarr, Gozo	MT	Mediterranean	4,396	4,643	5.32
20	Split	HR	Mediterranean	3,767	3,455	-9.03

* A main port is a statistical port with annual movements of no less than 200,000 passengers. A statistical port consists of one or more ports, normally controlled by a single port authority, which is able to record ship, passenger and cargo movements.

** Paloukia Salaminas and Perama have the same number of passengers as this is the single ferry line connecting both locations.

Note: special value: (:) value not available; (-) value could not be calculated due to the lack of input parameters.

Source: compiled by the Authors based on Eurostat data [12], location source [24].

Italy recorded the highest number of passengers (Table 2), none of Italian ports was among the 10 busiest ports (Table 4), but four of them were within top 20.

4. EUROPEAN CRUISE PORTS / *Europske luke za kružna putovanja*

In 2014 Europe was the second cruise destination in the world, with capacity market share of 30.0%, after Caribbean holding 37.3% (Table 5).

Cruise passenger traffic within European market was analysed using data obtained from annual economic contribution reports [6, 7, 8] on cruise industry published by CLIA Europe. This association uses this report to promote cruise industry at the European level, which is one of their main roles together with representation of cruise industry's interests within EU institutions.

The European cruise market is divided in two main regions: 1) The Mediterranean and 2) Northern Europe.

The Mediterranean cruise market comprises ports on Mediterranean Sea, Black Sea and Atlantic Isles. Majority of these ports are members of The Association of Mediterranean Cruise Ports (MedCruise), which represent ports from 20

countries. This region is further subdivided by MedCruise into following four sub-regions: 1) West Med (includes ports of Atlantic Isles), 2) Adriatic, 3) East Med and 4) Black Sea [cf. 16, p. 2].

Northern European region covers Northern and Atlantic Europe subdivided by Cruise Europe Association into the following four sub-regions [8, p. 25]: 1) Norway, Iceland and the Faroes, 2) the Baltic, 3) United Kingdom and Ireland and 4) Europe's West Coast (as far as Lisbon).

According to previous subdivision, the Portuguese port of Lisbon and the Spanish port of Cadiz belong to the Mediterranean region. The Port of Lisbon is a member of both associations, MedCruise [23] and Cruise Europe [18]. However, in CLIA report these ports are grouped as Northern European ports, and, since the analysis in this paper was performed by using statistics obtained in their report, these ports will be further analysed as Northern European ports.

4.1. Home ports / *Matične luke*

Home port, also referred to as base-port, embarkation port or turnaround port, is a port at which a cruise ship is based, normally for a series of cruises [7, p. 25]. In 2014 81.3% of passengers starting their cruise in European ports embarked

Table 5 Global deployment of cruise capacity market share by regions in 2013 and 2014
Tablica 5. Globalni raspored tržišnog udjela kapaciteta kružnih putovanja po regijama 2013. i 2014.

No.	Region	2013	2014	No.	Region	2013	2014
1	Caribbean	34.4%	37.3%	5	Alaska	4.8%	4.5%
2	Mediterranean	21.7%	18.9%	6	Asia	3.4%	4.4%
3	Europe w/o Med	10.9%	11.1%	7	South America	3.9%	3.3%
4	Australasia	5.0%	5.9%	8	Other Markets	15.8%	14.5%

Source: [17, sld 14].

Table 6 Cruise passengers by country of embarkation from 2012 until 2014
Tablica 6. Putnici na kružnim putovanjima prema zemlji ukrcaja od 2012. do 2014.

Country	Major embarkation ports	Year					
		2012		2013		2014	
		Pax ('000)	Share of total (%)	Pax ('000)	Share of total (%)	Pax ('000)	Share of total (%)
Italy	Venice Civitavecchia Savona Genoa	2,081	36.1	2,137	35.2	1,957	33.4
Spain	Barcelona Palma Majorca	1,217	21.1	1,298	21.4	1,258	21.5
United Kingdom	Southampton Dover Harwich	962	16.7	1,038	17.1	942	16.1
Germany	Hamburg Kiel Rostock/Warnemunde	451	7.8	565	9.3	585	10.3
France	Marseille	191	3.3	232	3.8	307	5.2
Denmark	Copenhagen	224	3.9	224	3.7	244	4.2
Greece	Piraeus	244	4.2	212	3.5	177	3.0
Netherlands	Amsterdam	119	2.1	96	1.6	87	1.5
Other EU+3*		213	3.6	250	4.1	201	3.4
EU+3		5,702	98.8	6,052	99.7	5,772	98.6
Other Europe**		67	1.2	18	0.3	81	1.4
Total		5,769	100.0	6,070	100.0	5,853	100.0

Pax – abbreviation for passengers. * Countries with less than 100,000 embarkations per year in period from 2012 until 2014. EU+. ** Russia, Georgia and Ukraine. Note: Europe is defined as the EU with member states plus Switzerland, Norway and Iceland. EU was extended to 28 states effective as of 1 July 2013 through addition of Croatia. Since the CLIA report covers a full year activities the economic impact assessment for year 2013 has been confined to the 27 member states at 1 January 2013. The scope of the report on 2014 was extended to cover the EU-28.

Source: compiled by the Authors based on data from CLIA reports [6, p. 15; 7, p. 3, p. 13; 8, p. 12].

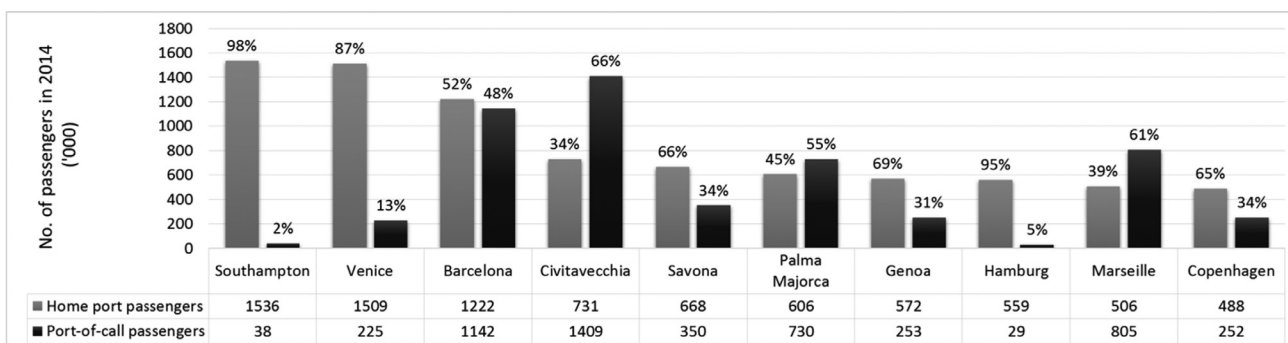


Figure 1 Distribution of cruise passengers in main European home ports in 2014
Slika 1. Raspodjela putnika na kružnim putovanjima u glavnim europskim matičnim lukama za 2014.

Note: Data for Copenhagen are estimates. The following ports from Table 6 were not included in the graph: (i) Amsterdam and Kiel. Separate data for home port and port-of-call passengers were not available for these ports in the report, only totals: Amsterdam 354,000 cruise passengers; Kiel 253,092, (ii) Dover, data were not available. Dover was listed as main European cruise home port in 2012 and 2013, but not in 2014, (iii) Harwick (GB) and Rostock/Warnemunde (DE): although identified as one of the major cruise embarkation ports of United Kingdom and Germany were not identified as main European cruise home ports in the analysed reports.

Source: Graph – authors. Data: MedCruise, Cruise Europe and individual port data in CLIA report [8].

for their journey in ports of Italy (33.4%), Spain (21.5%), United Kingdom (16.1%) and Germany (10.3%). The leading European home ports, which in 2014 recorded more than 1% of total share, are shown in the table below (Table 6).

These ports were further analysed by percentage of home porting passengers of total turnover (Figure 1).

From the Figure 1 it can be concluded that Northern European ports of Southampton and Hamburg are mostly home ports for cruise ships in which 95% and more of cruise passengers were home porting passengers. Mediterranean port of Venice handled 87% of home porting passengers and ranked third. These ports were followed by Mediterranean ports of Genoa (69% of home port passengers), Savona (66%)

and Northern European port of Copenhagen (65%). Both types of passenger were almost evenly distributed in Mediterranean ports of Barcelona and Palma Majorca. While in Mediterranean home ports of Marseille, Civitavecchia and Piraeus majority of cruise passengers were port-of call passengers, more than 60%.

4. 2. Port of Call / Luka ticanja

Port of call, also referred to as transit port or destination port, is a port at which a cruise ship calls during the course of a cruise [8, p. 25]. The majority of cruise ports of call in Europe are situated on the Mediterranean and Baltic Sea [8, p. 12]. In 2014 77.4% of cruise passengers visiting Europe visited ports

Table 7 Cruise passengers by country of destination, 2014
Tablica 7. Putnici na kružnim putovanjima prema zemlji destinaciji, 2014.

Country	Major port-of-call		Year	
			2014	
			Pax ('000)	Share of total (%)
Italy	Civitavecchia Naples Livorno	Bari Messina Palermo	6,174	21.3
Spain	Barcelona Palma Majorca Cadiz	Valencia Malaga	4,891	16.9
Greece	Piraeus Santorini	Corfu Mykonos	4,076	14.1
Norway	Bergen Stavanger Geiranger	Oslo Flam	2,619	9.0
France	Marseille Cote d'Azur ports~	Toulon/St Tropez Le Havre	2,439	8.4
Croatia	Dubrovnik/Korcula		1,119	3.9
Portugal	Lisbon		1,106	3.8
Other EU+3*			5,231	18.1
EU+3			27,654	95.5
Other Europe**			1,313	4.5
Total			28,967	100.0

~ Mainly Nice, Villefranche and Cannes. * Latvia, Lithuania, Romania and Bulgaria. ** Russia, Montenegro, Monaco, Turkey (Europe only). Source: compiled by authors from data from CLIA report [8, p. 11, p. 13]

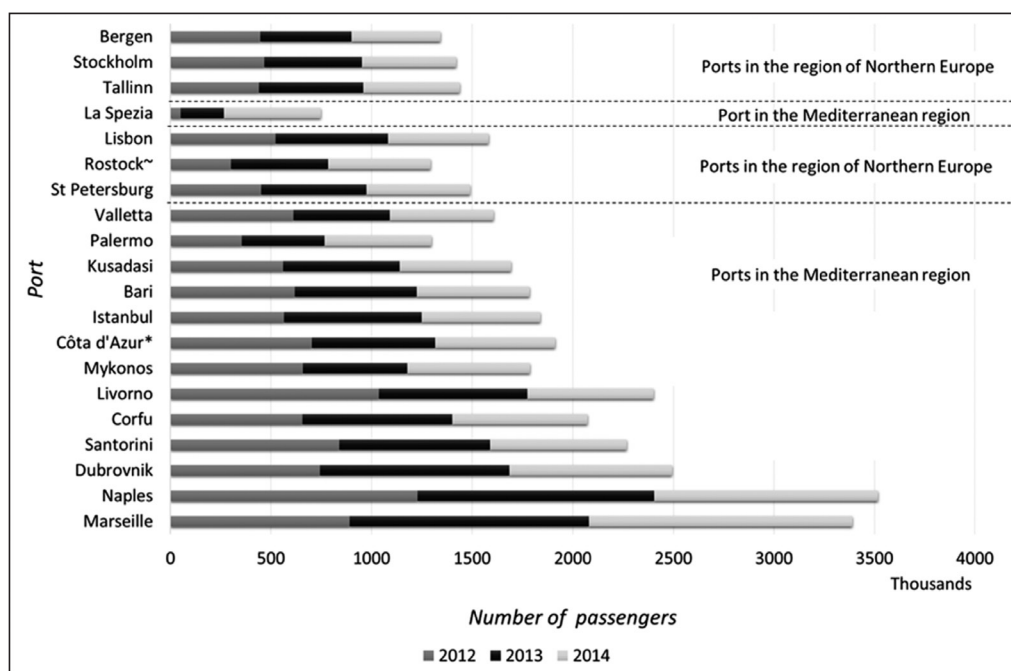


Figure 2 Main European ports of call, 2012-2014
Slika 2. Glavne europske luke ticanja, 2012. – 2014.

~ Includes Warnemunde. * Mainly Nice, Villefranche and Cannes.

Note: 1. Where a port also handles home porting passengers, these are also included in the totals shown in the Graph. 2. Four of the six displayed leading ports of call of Northern Europe are in the area of Baltic Sea.

Source: Graph – authors. Data: MedCruise, Cruise Europe and individual port data in CLIA report [8].

in Italy (21.3%), Spain (16.9%), Greece (14.1%), Norway (9.0%), France (8.4%), Croatia (3.9%) and Portugal (3.8%). Leading ports of calls for these countries are shown in the table below (Table 7).

The busiest European ports of call were on the Mediterranean. Most of these ports are situated in the West Med sub-region. The leading West Med ports of call in 2014, according to the data from CLIA Europe² [8, p. 11, p. 13], were ports of Civitavecchia (2.14 mil. cruise passengers), Barcelona (2.36 mil.), Marseille (1.31 mil.), Naples (1.31 mil) and Livorno (626,356). The busiest Adriatic ports of call were Dubrovnik (807,000), Corfu (672,368) and Bari (561,602). In the East Med sub-region the major ports of call were Piraeus (1.01 mil), Santorini (679,000), Mykonos (610,207) and Istanbul (589,353). Due to the achieved amount of traffic ports of Black Sea were not included in the list of major European ports of call.

In 2014³ [8, p. 11, p. 13] dominating Northern European ports of call were the following Baltic ports: St Petersburg (513,885 total cruise passengers), Rostock/Warnemunde (509,000), Tallin (479,031) and Stockholm (467,000). Norwegian ports of Bergen (442,759), Geiranger (301,174), Stavanger (262,500) and Flam (203,874) were the major European ports of call in the region of Iceland, Norway and Faroes. In the Europe West Coast sub-region the busiest ports of call were Lisbon (500,872), Cadiz (381,302), Le Havre (256,904) and Zeebrugge (220,000). Ports from the United Kingdom and Ireland were not listed among major European ports of call.

The top 20 European ports of call, excluding home ports, are shown in the figure below (Figure 2). From this figure the domination of Mediterranean ports is quite obvious.

² Home porting and transit passengers are included in total shown in continuation.
³ Ibid.

5. CONCLUSION / Zaključak

In 2013, after four consecutive years of downturn, maritime passenger traffic of EU-28 ports registered an increase. Through quantitative analysis of data gathered from Eurostat database and CLIA Europe economic reports, maritime passenger transport in Europe was analysed in order to identify its main features and actors, i.e. leading European countries and ports in maritime passenger transport. On country level, Italy and Greece were identified as countries which registered more than one third of EU-28 maritime passenger transport. On the EU NUTS 2 level, Greek region of Atikki registered the highest amount of maritime passenger transport followed by the Croatian region of Jadranska Hrvatska (the Adriatic part of Croatia).

Italy and Greece are also leading maritime passengers transport countries when cruise passengers are excluded, both if total and only national transports are considered. Further quantitative analysis revealed also that around 44% of maritime passenger transport in Europe, excluding cruise passengers, belongs to national transport. Furthermore, it was concluded that Northern European ports are primarily international seaport, while Southern (i.e. Mediterranean) European ports are primarily national passenger ports [4].

Cruise passenger transport is also highly represented in Europe, which is the second cruise destination in the world, after Caribbean. The European cruise market is divided into two main regions, the Mediterranean and Northern Europe. Home porting passengers were mostly handled in Mediterranean countries of Italy, Spain and Greece and in Northern European countries of United Kingdom, Germany, France and Denmark. Italy, Spain and Greece were also countries with the highest number of transit passengers in Mediterranean region, together

with France and Croatia. In Northern European region the list of countries by destination changed as regards to home porting passengers. Norway was identified as country with highest number of transit passengers, followed by France (its northern port) and Portugal.

Further research resulting in quantitative analysis of maritime passenger transport at regional level, i.e. EU NUTS 2 level is recommended as this would enable identification of more detailed features of maritime transport for each region.

REFERENCES / Literatura

- [1] Asić, A. (2001). „Analysis of passenger port efficiency in the Republic of Croatia“. *Pomorstvo*, vol. 25, no. 1, pp. 71-86.
- [2] Jugović, A.; Mezak, V.; Lončar, S. (2006). „Organization of maritime passenger ports“. *Journal of Maritime & Transportation Sciences*, vol. 44, no. 1, pp. 93-104.
- [3] Luković, T. (2008). „Analysis of the development of world and Croatian cruising“. *International Journal of Maritime Science & Technology „Our Sea“*, vol. 55, no. 5-6, pp. 233-248.
- [4] Stupalo, V. (2015). *Methods for evaluation of capacity and level of service in ferry port*. Zagreb. Faculty of Transport and Traffic Sciences of University of Zagreb (doctoral thesis).
- [5] Vaggelas, G. K.; Pallis, A. A. (2010). „Passenger ports: services provision and their benefits“. *Maritime Policy & Management*, vol. 37, no. 1, pp. 73-89. <http://dx.doi.org/10.1080/03088830903461209>
- [6] G. P. Wild (International) Ltd., Business Research Economic Advisors: The Cruise Industry – Contribution of Cruise Tourism to the Economies of Europe – 2013 Edition, Cruise Lines International Association (CLIA) Europe, Brussels, 2013. Available at: <http://www.cliaeurope.eu/media-room/clia-europe-economic-contribution-report> (access: 17. 1. 2016)
- [7] G. P. Wild (International) Ltd., Business Research Economic Advisors: The Cruise Industry – Contribution of Cruise Tourism to the Economies of Europe – 2014 Edition, Cruise Lines International Association (CLIA) Europe, Brussels, 2014. Available at: <http://www.cliaeurope.eu/media-room/clia-europe-economic-contribution-report> (access: 17. 1. 2016)
- [8] G. P. Wild (International) Ltd., Business Research Economic Advisors: The Cruise Industry – Contribution of Cruise Tourism to the Economies of Europe – 2015 Edition, Cruise Lines International Association (CLIA) Europe, Brussels, 2015. Available at: <http://www.cliaeurope.eu/media-room/clia-europe-economic-contribution-report> (access: 17. 1. 2016)
- [9] Eurostat, Database, Regional transport statistics, Maritime transport of passengers by NUTS 2 regions. Code: tgs00075, Last update: 1. 12. 2015
- [10] Eurostat, Database, Maritime transport, Passengers, Annual data – All ports – by direction. Code: mar_pa_aa, Last update: 21. 12. 2015
- [11] Eurostat, Database, Maritime transport, Passengers, Quarterly data – Main ports – by direction and type of traffic (national and international). Code: mar_pa_qm, Last update: 16. 10. 2014
- [12] Eurostat, Database, Maritime transport, Passengers, Quarterly data – Main ports – One detailed table per each reporting country – by direction, partner entity and nationality of registration of vessels. Code: mar_pa_qm_be, mar_pa_qm_de, mar_pa_qm_ie, mar_pa_qm_es, mar_pa_qm_it, mar_pa_qm_pt, mar_pa_qm_fi, mar_pa_qm_uk, mar_pa_qm_hr, mar_pa_qm_ee, Last update: 22. 12. 2015; Code: mar_pa_qm_dk, mar_pa_qm_mt, Last update: 31. 7. 2015; Code: mar_pa_qm_tr, mar_pa_qm_el, mar_pa_qm_it, mar_pa_qm_pl, mar_pa_qm_se, mar_pa_qm_nl, Last update: 23. 10. 2015; Code: mar_pa_qm_fr, Last update: 6. 7. 2015; Code: mar_pa_qm_no, mar_pa_qm_lv, Last update: 18. 6. 2015
- [13] Eurostat, Database, Population, Demography, Population change – Demographic balance and crude rates at national level. Code: demo_gind, Last update: 19. 10. 2015
- [14] Eurostat, Publications, Statistics explained, Transport statistics at regional level, Last update: March 2015
- [15] Eurostat, Reference Manual on Maritime Transport Statistics, Version December 2014 (2.0). Available at: <http://ec.europa.eu/eurostat/documents/29567/3217334/Reference-Manual-December-2014.pdf/f8b97055-0885-4812-9dec-383bcbf573cc> (access: 6. 1. 2016)
- [16] Cruise activities in MedCruise ports. Statistics 2013. A MedCruise Report, Piraeus, 2014. Available at: http://www.medcruise.com/images/VariousDocs/Cruise_Activities_in_MedCruise_Ports_2014.pdf (access: 16. 1. 2016)
- [17] <http://www.cruising.org/docs/default-source/market-research/pressconferencepresentation.pdf?sfvrsn=0> (access: 12. 1. 2016)
- [18] <http://www.cruiseurope.com/port/lisbon> (access: 17. 1. 2016)
- [19] <http://www.cruiseurope.com/maps> (access: 17. 1. 2016)
- [20] <http://ec.europa.eu/eurostat/web/nuts/overview> (access: 21. 11. 2015)
- [21] http://www.espo.be/index.php?option=com_content&view=article&id=333:european-cruise-council-joins-forces-with-cruise-associations-to-become-clia-&catid=34:espo-news&Itemid=109 (access: 17. 1. 2016)
- [22] <http://www.interferry.com/communications/ferry-industry-facts/> (access: 6. 1. 2015)
- [23] <http://www.medcruise.com/port/498/lisbon/destination> (access: 17. 1. 2016)
- [24] <http://www.medcruise.com/port-members> (access: 17. 1. 2016)
- [25] <http://ports.com> (access: 13. 11. 2014)