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An Overview of the Cruise Industry in Greece from 2010-2019

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Abstract

Cruise is one of the most significant sectors worldwide with essential benefits to the economies of the hosting countries and plays a big part in the tourism industry. Cruise tourism develops its tourist activity, as it offers transportation for tourists and at the same time provides accommodation and leisure services. The current study gives an overview of the cruise tourism in Greece from 2010-2019. The year with the higher cruise demand was 2011 and with the lowest 2017. Since 2017 cruise tourism in Greece started to increase in numbers, and this leads to an increase in the income generated by cruise tourism as well.

JEL Classification: L83, N74, Z32

Keywords: Cruise tourism; Greece; Expenditures; Cruise passengers; Cruise ships; Arrivals

1. Introduction

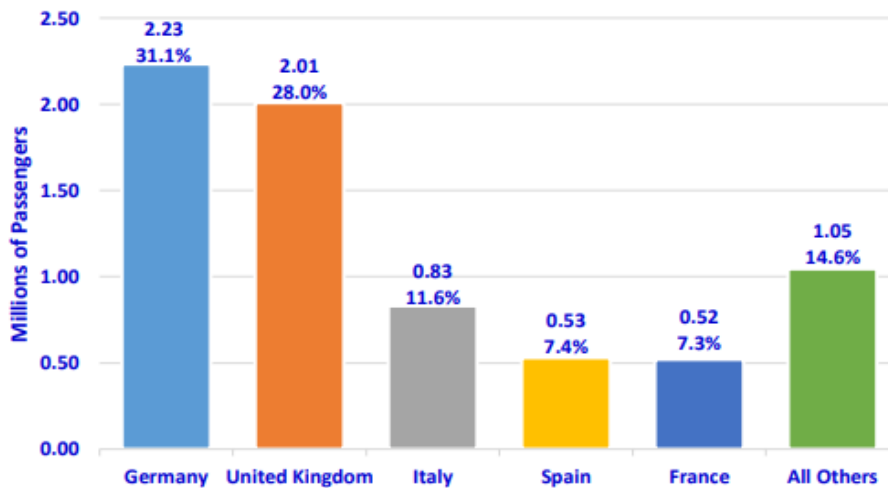
The cruise industry is one of the most significant areas of development worldwide (Hobson, 1993; Peisley, 1995); thus, marketing becomes imperative in the tourism sector (Pantouvakis and Patsiouras, 2016). Cruise is a leisure experience where tourists travel on a cruise ship to different destinations (Hung et al., 2019). As per Diakomihalis (2009), cruise tourism is identified as the choice of a suitably shaped ship that can be used as a place of accommodation, entertainment, and as a means of locomotion from one port to another. A cruise ship offers the ability to a large number of tourists to visit large ports and investigate different cultures (Sambracos and Papadopoulou, 2013). The purpose of the cruise is not the transport itself but the enjoyment of passengers by its use (Kendall, 1986). Cruise has its roots back to 1835, and the first itinerary was in the Mediterranean Sea that continues to constitute one of the most significant regions of cruise ships along with the Caribbean (Boyd, 2009).

Worldwide, the cruise industry has an annual passenger CAGR (Compound Annual Growth Rate) of 7.38% from 1990–2015 (Hellenic Republic Asset Development Fund, 2015). According to CLIA (Cruise Lines International Association) (2017), the financial impact cruise tourism in 2015 comprised of 22.04 million passengers, 939,232 jobs, \$39.3 billion in salaries and wages, \$137.72 average tourist spending per day and \$119.9 billion total

economic impacts on the economy. 28.5 million people took a cruise in 2018. In the Mediterranean region, the cruise is increasing in popularity with an 8% increase from 2017 to 2018, accounting for more than 4 million cruisers.

The amount of \$68 billion was generated in the cruise sector from almost 146.4 million onshore visits by passengers and crew globally (CLIA, 2019). North America experienced another year of steady growth in sourced passengers (9.3%), while Europe (3.3%) and the Rest of the World (5.2%) grew at slightly lower rates. The next figure shows the distribution of cruise passengers sourced from Europe. According to this data, the five largest European countries accounted for 85.4% in 2018. Specifically, Germany accounted for 31.1%, the United Kingdom for 28%, Italy for 11.6%, Spain for 7.4%, France 7.3%, and the rest European countries for 14.6%.

Figure 1: Distribution of cruise passengers sourced from Europe - 2018¹



Source: CLIA, 2019

2. Research Background on Cruise Tourism

The cruise can bring significant benefits to the destinations through the increase of foreign exchange earnings, the profits from the cruisers' expenditures, taxes, employment growth, and economies of scale (Brida and Seijas, 2012). As Marksel, Tominc, and Božičnik (2016), cruisers' expenses have a significant effect on cruise tourism profitability and related industry sectors. Dwyer and Forsyth (1998) support that cruise activities lead to cruise passengers' expenditures in the ports and the mainland, which generates positive economic effects for the destinations. The dominant feature of cruise ships is the hotel operation of the ship. Papatheodorou (2001) reports that the cruise ship offers hotel-type services, and its staff has specialties analogous to modern hotel units. The difference between a cruise ship and a conventional hotel lies in the fact that it can be geographically moved due to the ability to navigate to meet the demand.

As Rodrigue and Notteboom (2012) mention, the cruise industry has become one of the rapidly growing tourism industries and uses large cruise ships as opposed to the cruise

¹ Note: United Kingdom includes Ireland

industry back in the 1960s. The cruise industry has become a symbol of the globalization of the tourism industry in terms of market coverage, practices, and the mobility of its assets (Chin, 2008; Weaver, 2005; Wood, 2000). Cruise tourism has multiple benefits for social and economic development. This type of tourism can benefit the cruise-related national economies of different countries by improving foreign exchange, taxes, employment, and externalities (Seidl, Guiliano and Pratt, 2006). Chaos et al. (2018) point out that the cruise tourism industry accomplished fast growth globally in the past 30 years, and this resulted in an increase in cruise passengers.

The development of cruise ships has made the cruise accessible to the broader social strata. It is a fact that in the past decades, only the elderly and the wealthy had the privilege of undertaking a cruise as they only had the time and the financial means to meet its requirements (Dickinson and Vladimir, 1997). The effects of the cruise industry have a multiplier character. There is an interaction between the cruise industry and various parts of the economy. The cruise industry interacts with wholesale and retail trade, financial and insurance activities, real estate, food and beverage services, and waste management activities. Besides, it interacts with construction, education, agriculture, forestry and fishing, the arts and recreation, and electricity. New money flows can support the economy by creating new jobs, increasing profits, and attracting investment (Brida and Zapata, 2008).

There are significant studies regarding cruise tourism over the years, but cruise tourism itself has not received much attention (Sun, Kwornik and Gauri, 2018; Han et al., 2019; Hung et al., 2019). Studies on cruise tourism have been targeted on passengers' behavior (Petrick, 2004; Petrick and Durko, 2015; DiPietro and Peterson, 2017), but also on the impacts of the industry on local economies (Dwyer and Forsyth, 1998; Penco and Di Vaio, 2014; Gabe et al., 2017). As Papatnassis and Beckmann (2011) mention, cruise ship tourism is a rapidly growing and dominant subsector of the international tourism industry, it is growing three times faster than the overall tourism, and it becomes influential worldwide (Yan, 2018). Cruise passengers participate in cruise ship vacations for various reasons, such as relaxation, socialization, convenience, escape from everyday life (Jones, 2011; Chua, 2015).

Santangelo (1984) analyzes the progress of cruise tourism through different reports, Marti (2004) identifies the trends of extended-length cruising, Singh (2000) studies the opportunities of the Asia Pacific cruise line industry and Sun, Feng and Gauri (2014) examine efforts being done for the cruise industry development of China. Another study focuses on marketing research and revenue optimization studies of cruise tourism (Sun, Jiao and Tian, 2011).

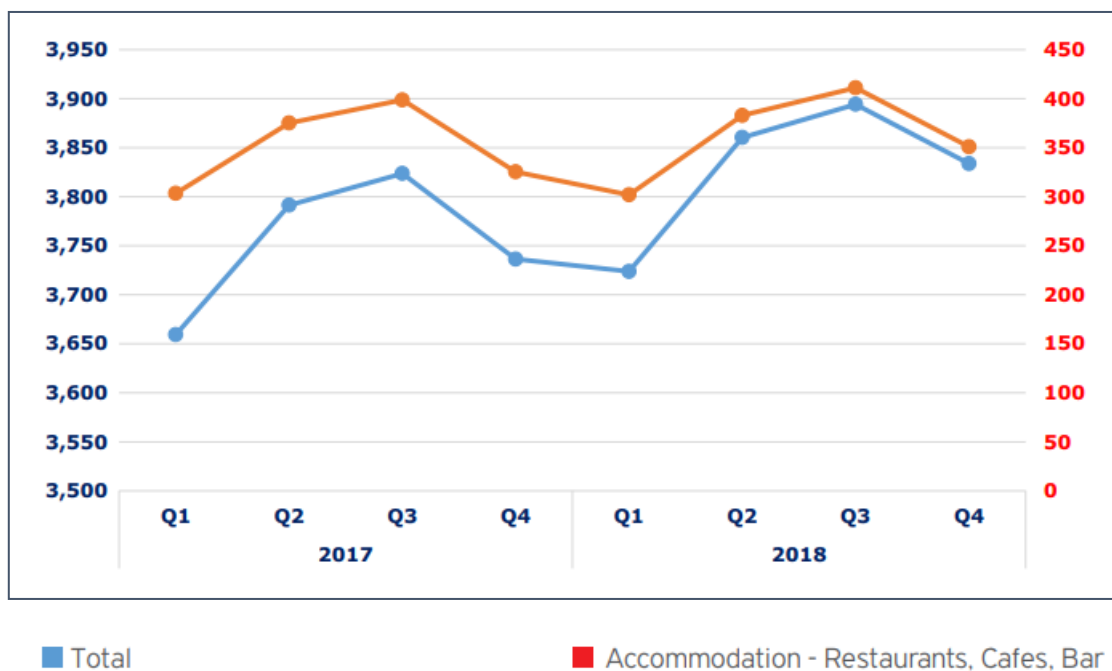
Papadopoulou and Sambracos (2014), Pallis (2015), Gargano and Grasso (2016), and Gouveia and Eusébio (2018) talk about the importance of tourism to local economies. Still, they also focus on the direct economic impacts of cruise tourism, which is very significant for policymakers and port authorities. MacNeill and Wozniak (2018) in their study, support that local benefits fail to materialize when cruise tourism is undertaken without investment in, and involvement of, destination communities.

Brida and Zapata (2010), Brida, et al. (2012), Larsen, Wolff, and Marnburg (2013), in their studies, attempt to estimate cruise tourist expenditures through passenger surveys. Another study discusses the understanding of how Amsterdam City tourism marketing addresses cruise tourists' motivations regarding culture, and the findings focus on the fact that marketers should more effectively focus on and promote 'local flavor' experience (Dai, Hein and Zhang, 2019).

3. Cruise Tourism in Greece

Tourism, in general, is the 8th most interconnected sector of the Greek economy. In 2018, 88% of tourism revenue was recorded in five regions, South Aegean (28%), Crete (20%), Attica (15%), Central Macedonia (15%), and Ionian Islands (11%). In South Aegean (97%), Ionian Islands (71%), and Crete (47%), the direct tourism activity accounts for one in every two euros produced. According to the figure below (Fig. 2), accommodation and restaurants/bars represent 63.3% of tourist expenditure in Greece. Analytically, housing accounts for 45.3% and restaurants/bar an 18%. If the contribution of these two sectors is assumed to be proportional to their GDP contribution, then someone can believe that the total employment generated by tourism at the peak season (Q3) of 2018 was 650,000 workers or 16.7% of full employment. Plus, if the employment multiplier can be compared to that of GDP, then the total employment generated by tourism amounts to 36.7%-44.2% of the total.

Figure 2: Contribution to employment in Greece 2017-2018



Source: INSETE Intelligence, 2019

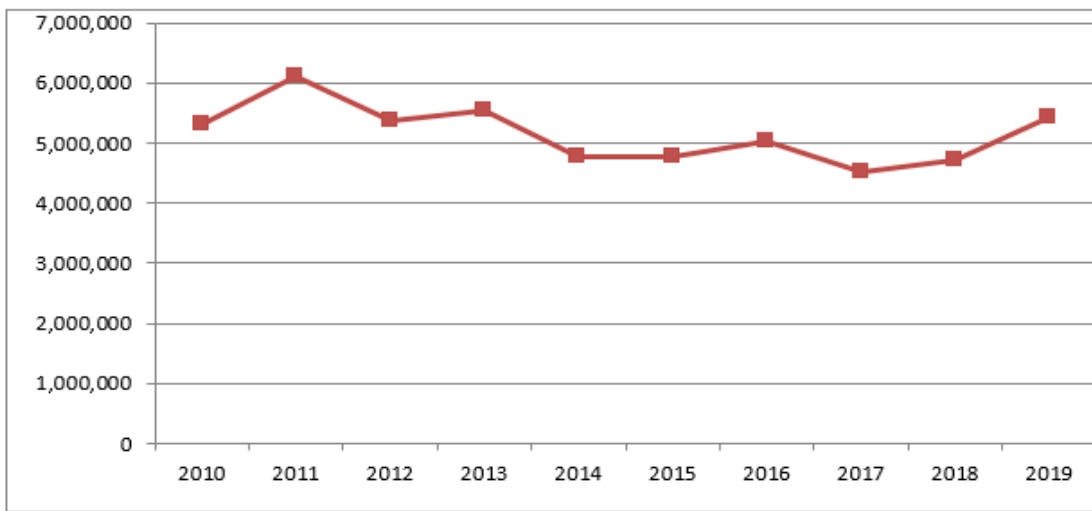
According to Lekakou (2015), the Greek cruise is being developed since the 1930s, when the first companies emerged to provide leisure travel services exclusively in the Aegean and the broader area of Mediterranean. As Psaraftis (2006) explains, cabotage was a law in force from 1920 to 2012, where it was abolished. According to cabotage, cruise companies were prohibited from embarking and disembarking tourists in Greek ports while flying the flag of another country.

Papadopoulou, Sambracos, and Xesfingi (2017) study the influential factors of cruise passengers' expenditures in the Greek islands and find that cruisers tend to spend less at ports visited. As Brida et al. (2012) mention, this happens due to the limited time tourists spend on each island. The arrivals of cruise passengers show an upward trend since 2018. In 2011 the cruisers' visitors were 6,121,360 an increase of 15.32% compared to last year, whereas in 2012 the cruise tourism in Greece faced a decline of 12.25%. Cruise passengers' arrivals decreased during 2017 because of the political instability in the Eastern Mediterranean. Greece, despite offering stability, is suffering because it lost its cruise partner, Istanbul. The

vast majority of the Greek ports included Istanbul. After the failed coup in July 2016, almost all international companies not only canceled this destination but also reduced their approaches to Greek ports (Kouparanis, 2017). TUI followed an entirely different line with 98 destinations in Greek ports in 2017. One of the destinations in Greece upgraded by TUI was Crete. The company compensated for the loss of Istanbul last year with the destinations of Chania and Agios Nikolaos. In 2019 the number of cruise passengers' arrivals was 5,422,242, an increase of 15.3% in contrast with the previous year.

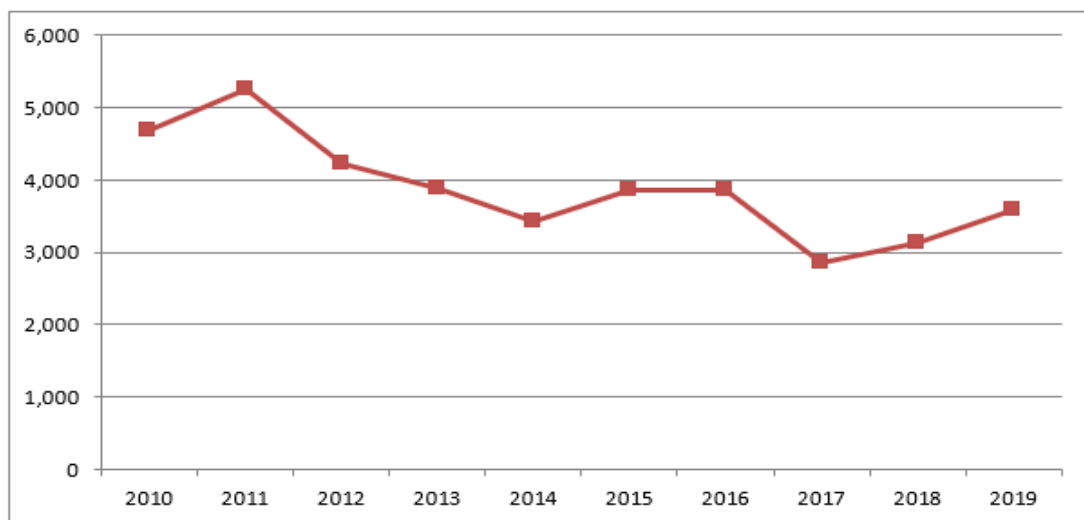
Figures 3 and 4 show the cruise passengers' arrivals and the cruise ships' arrivals in Greece from 2010-2019. The best year for Greece was 2011, with 6,121,360 cruisers' visitors with a record of 5,261 cruise ships' visitors through the years. The worst year was 2017, with 4,508,791 passengers and 2,849 cruise ships' arrivals in the Greek ports.

Figure 3: Cruise passengers' arrivals in Greece from 2010-2019



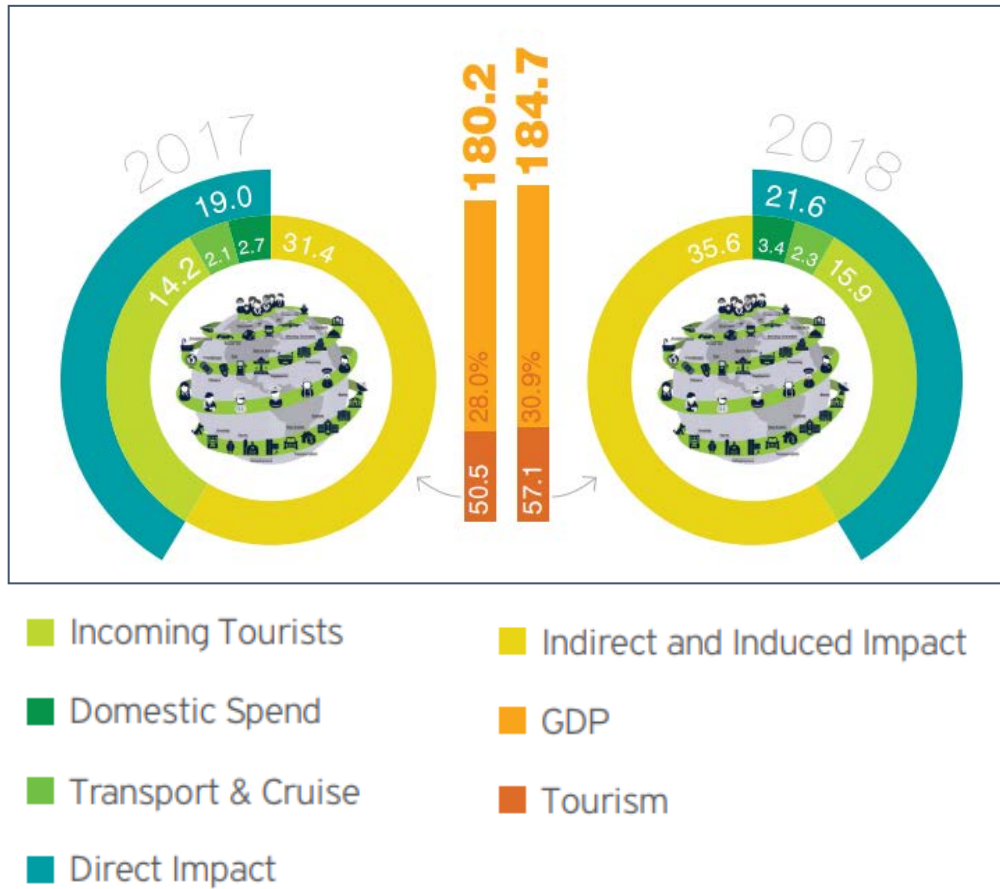
Source: Author's construction

Figure 4: Cruise ships arrivals in Greece from 2010-2019



Source: Author's construction

Figure 5: Contribution of Tourism to GDP to the Greek economy (billion €)



Source: INSETE Intelligence, 2019

Appendix 1 shows the extended data of cruise demand for 26 Greek ports with the cruise ships and cruise passengers' arrivals. The leading port in Greece in the port of Piraeus, followed by Santorini, Katakolo, Mykonos, Corfu, and Rhodes. There was a decline of cruise ships' arrivals in 2019 by 24.4% from 2010 and 4.1% decline for cruise passengers' visitors through the same years.

Tourism brings direct and indirect contribution to the Greek economy and which accounted for 30.9% of the county's GDP in 2018, compared with 28% in 2017. More specifically, direct participation in 2018 was €21.6 billion and indirect was €35.6 billion, while in 2017 the direct contribution was €19 billion and indirect €31.4 billion. The contribution of direct tourism in 2018 increased by 2.524 million, while nominal GDP increased by 4.5 billion. For every 1.0 of tourism revenue, Greece's GDP grows by 2.65, and only 12.9% of receipts from incoming tourism is re-exported (Fig. 4).

The direct revenue from the passengers' expenditures (Table 1), can be calculated 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

The table below shows the number of cruise ship arrivals, the number of passenger arrivals, and the calculated passenger expenditures from 2010-2019 in Greece.

Table 1: Cruise arrivals and expenses in Greece, 2010-2019

Year	No of C/S Arrivals	No of Pax Arrivals	Passengers Expenses
2010	4,677	5,308,059	764,360,496
2011	5,261	6,121,360	881,475,840
2012	4,235	5,371,555	773,503,920
2013	3,872	5,534,726	797,000,544
2014	3,420	4,770,069	686,889,936
2015	3,866	4,779,349	688,226,256
2016	3,852	5,038,643	725,564,592
2017	2,849	4,508,791	649,265,904
2018	3,140	4,702,879	677,214,576
2019	3,582	5,422,242	780,802,848
Total	38,754	51,557,673	7,424,304,912

Source: Author's construction

4. Conclusion

The current study examined the cruise demand in Greece from 2010 to 2019 in terms of cruise ships and cruise passengers' arrivals. Cruise is a sector with significant advantages for destinations due to the high income of the passengers. An important parameter is that journey is an activity relating to many destinations, and this leads to the need to upgrade not only the port of Piraeus, the leading port for a cruise in Greece but also to focus on the boost of other Greek ports. The upgrade of tourism and the abolition of cabotage contributed to the enhancement of cruise tourism in Greece, as Greece's geographical location in the Eastern Mediterranean is very important for the sector.

The greatest advantage of Greece is the climate, the sea, and the sun. That is why Greece is an attractive tourism destination not only during the summer months but also during winter. The development of the cruise industry in Greece is based on two group factors. The first is the characteristics of the Greek ports and the natural and cultural elements of the area, which is related to the port infrastructure and the offered services. The second is the characteristics of the region that make it an attractive destination. Greece should be represented at international conferences and exhibitions with regards to cruise tourism.

An important factor is that the cruise is an activity that relates to several destinations. Greek ports should follow an effective policy for the promotion and development of the cruise industry. Cruise arrivals were decreasing from 2012 to 2017 where cruise in Greece started to experience an increase on cruise demand which lasts till today.

Future research suggests a comparison of the cruise industry prior and after the economic crisis in Greece to identify potential changes on the cruisers' preferences. Also, it would be interesting to study the differences between the Ionian and Aegean Sea in terms of cruise demand. Finally, the research of cruise passengers' different nationalities could be of interest to policy makers in order to direct their marketing strategies in specific countries.

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Appendix 1

Table 2: Demand for cruise in Greece from 2010-2019

Year	Destinations	No of C/S arrivals	No of pax arrivals
2010	Pireaus	823	1,145,402
	Santorini	700	775,512
	Katakolo	360	763,861
	Mykonos	594	663,371
	Corfu	429	569,400
	Rhodes	539	632,117
	Heraklio	247	305,000
	Patmos	531	151,864
	Chania	21	11,509
	Kefalonia	64	82,812
	Volos	33	21,455
	Nafplio	66	66,779
	Mitilini	41	15,663
	Kos	44	26,252
	Samos	21	10,053
	Lavrio	25	17,221
	Monemvasia	22	7,050
	Milos	33	8,023
	Thessaloniki	20	16,029
	Gythio	25	7,107
Chios	20	5,183	
Kavala	11	2,358	
Patras	2	1,059	
Andros	5	2,856	
Alexandroupoli	0	0	
Igoumenitsa	1	123	
2011	Pireaus	936	1,485,828
	Santorini	962	938,291
	Katakolo	429	819,943

	Mykonos	684	782,365
	Corfu	453	594,228
	Rhodes	511	576,399
	Heraklio	209	221,562
	Patmos	481	176,212
	Chania	72	158,118
	Kefalonia	56	87,171
	Volos	61	72,796
	Nafplio	74	49,188
	Mitilini	66	35,456
	Kos	48	23,473
	Samos	28	21,725
	Lavrio	14	14,670
	Monemvasia	47	13,937
	Milos	42	12,342
	Thessaloniki	19	11,519
	Gythio	26	10,742
	Chios	25	8,487
	Kavala	10	2,708
	Patras	3	2,287
	Andros	3	1,515
	Alexandroupoli	1	242
	Igoumenitsa	1	156
2012	Pireaus	763	1,198,047
	Santorini	718	838,875
	Katakolo	337	749,892
	Mykonos	585	657,511
	Corfu	485	655,764
	Rhodes	448	472,308
	Heraklio	156	215,700
	Patmos	194	112,587
	Chania	54	129,087

	Kefalonia	98	120,739
	Volos	21	11,926
	Nafplio	63	30,868
	Mitilini	39	29,951
	Kos	64	41,171
	Samos	29	37,374
	Lavrio	19	17,339
	Monemvasia	49	13,504
	Milos	27	6,272
	Thessaloniki	11	8,014
	Gythio	30	7,772
	Chios	25	8,349
	Kavala	10	4,323
	Patras	3	374
	Andros	3	1,981
	Alexandroupoli	0	0
	Igoumenitsa	4	1,827
2013	Pireaus	711	1,302,581
	Santorini	582	778,057
	Katakolo	307	763,966
	Mykonos	485	587,501
	Corfu	480	744,673
	Rhodes	373	409,991
	Heraklio	177	270,020
	Patmos	177	113,339
	Chania	47	124,205
	Kefalonia	100	135,659
	Volos	31	20,227
	Nafplio	54	23,732
	Mitilini	56	42,423
	Kos	86	64,756
	Samos	25	38,676

	Lavrio	20	13,504
	Monemvasia	29	11,621
	Milos	9	2,962
	Thessaloniki	18	14,585
	Gythio	40	48,200
	Chios	33	9,924
	Kavala	14	6,995
	Patras	2	1,278
	Andros	1	727
	Alexandroupoli	1	474
	Igoumenitsa	14	4,650
2014	Pireaus	606	1,055,556
	Santorini	512	742,553
	Katakolo	251	584,879
	Mykonos	441	610,207
	Corfu	395	672,368
	Rhodes	314	311,182
	Heraklio	160	242,951
	Patmos	156	109,429
	Chania	38	33,304
	Kefalonia	79	88,032
	Volos	53	57,825
	Nafplio	46	26,050
	Mitilini	53	34,150
	Kos	79	42,040
	Samos	23	24,865
	Lavrio	30	30,493
	Monemvasia	39	22,068
	Milos	17	10,362
	Thessaloniki	31	19,720
	Gythio	20	18,144
	Chios	36	16,963

	Kavala	26	13,087
	Patras	2	745
	Andros	0	0
	Alexandroupoli	0	0
	Igoumenitsa	13	3,096
2015	Pireaus	621	980,149
	Santorini	636	791,927
	Katakolo	242	459,882
	Mykonos	600	649,914
	Corfu	407	647,347
	Rhodes	340	342,063
	Heraklio	170	219,805
	Patmos	192	124,476
	Chania	59	96,612
	Kefalonia	112	149,227
	Volos	57	67,096
	Nafplio	62	46,075
	Mitilini	53	24,894
	Kos	41	18,277
	Samos	19	10,893
	Lavrio	55	44,815
	Monemvasia	38	10,391
	Milos	28	15,394
	Thessaloniki	35	26,356
	Gythio	23	10,448
	Chios	42	25,229
	Kavala	22	12,783
	Patras	3	1,090
	Andros	2	838
	Alexandroupoli	1	278
	Igoumenitsa	6	3,090
2016	Pireaus	625	1,094,135

	Santorini	572	783,893
	Katakolo	274	505,111
	Mykonos	596	722,517
	Corfu	481	748,916
	Rhodes	299	314,689
	Heraklio	165	238,780
	Patmos	147	91,785
	Chania	86	147,915
	Kefalonia	77	85,463
	Volos	46	37,445
	Nafplio	94	51,551
	Mitilini	29	13,923
	Kos	41	19,222
	Samos	51	43,659
	Lavrio	65	43,236
	Monemvasia	44	12,904
	Milos	32	14,735
	Thessaloniki	23	18,876
	Gythio	33	13,019
	Chios	43	21,933
	Kavala	19	6,042
	Patras	2	743
	Andros	1	528
	Alexandroupoli	0	0
	Igoumenitsa	7	7,623
2017	Pireaus	576	1,055,559
	Santorini	406	620,570
	Katakolo	271	567,047
	Mykonos	201	699,304
	Corfu	410	679,681
	Rhodes	248	274,903
	Heraklio	131	181,693

	Patmos	136	110,878
	Chania	84	128,067
	Kefalonia	50	61,598
	Volos	9	7,618
	Nafplio	136	29,689
	Mitilini	5	2,482
	Kos	16	6,451
	Samos	39	10,008
	Lavrio	26	17,406
	Monemvasia	39	7,742
	Milos	23	9,222
	Thessaloniki	4	2,424
	Gythio	16	6,738
	Chios	7	16,445
	Kavala	6	3,226
	Patras	2	952
	Andros	0	0
	Alexandroupoli	0	0
	Igoumenitsa	8	9,088
2018	Pireaus	524	961,632
	Santorini	474	749,286
	Katakolo	221	468,046
	Mykonos	484	702,256
	Corfu	413	735,832
	Rhodes	210	237,808
	Heraklio	187	297,929
	Patmos	124	103,126
	Chania	78	139,944
	Kefalonia	90	144,074
	Volos	27	31,336
	Nafplio	75	57,894
	Mitilini	1	260

	Kos	10	4,153
	Samos	96	14,737
	Lavrio	0	0
	Monemvasia	43	9,154
	Milos	27	16,667
	Thessaloniki	5	1,502
	Gythio	18	8,642
	Chios	10	1,766
	Kavala	5	1,954
	Patras	2	1,647
	Andros	0	0
	Alexandroupoli	2	584
	Igoumenitsa	14	12,650
2019	Pireaus	622	1,098,091
	Santorini	592	980,771
	Katakolo	199	413,716
	Mykonos	550	787,490
	Corfu	420	767,673
	Rhodes	258	308,194
	Heraklio	204	307,043
	Patmos	156	112,721
	Chania	132	265,956
	Kefalonia	133	259,261
	Volos	22	12,574
	Nafplio	88	34,704
	Mitilini	7	3,180
	Kos	19	5,150
	Samos	42	9,674
	Lavrio	0	0
	Monemvasia	55	10,107
	Milos	38	23,641
	Thessaloniki	6	4,865

	Gythio	19	9,674
	Chios	5	2,328
	Kavala	7	2,699
	Patras	2	1,219
	Andros	1	458
	Alexandroupoli	0	0
	Igoumenitsa	5	1,053