

Erasmus University Rotterdam

MSc in Maritime Economics and Logistics



Thesis topic: National and EU role in flag competitiveness. The case of Greece.

By

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Abstract

One of the main characteristics of the shipping sector is its international character. This characteristic has a significant impact in the vessel registration procedure. A vessel can be registered everywhere, potential that is being used in a great extend form shipping companies for mainly financial reasons. As shipping companies select registries other than the ship owner nationality, the traditional ship owning nations fleets are decreased. Today, more than half of the total fleet is registered in the so called open registries or flags of convenience (FOCs).

The selection of the vessels' flag, in other words its registration, is not a simple legal requirement anymore but has been upgraded to a choice that is related to the ship profitability, financial adaptation and reliability. Therefore, the selection of the vessel flag and corresponding nationality has always been one of the most important decisions a ship owner needs to make. Avoiding national taxation obligations, speeding up administrative procedures, avoiding specific regulations and therefore hide vessel properties, which finally result in providing a competitive advantage are considered the usual motivations behind the selection of a specific flag.

While the share of world fleet owned by Greek ship owners retains its dominant position the last decade, the corresponding Greek flagged fleet constantly decreases. The reasons behind the "flagging out" phenomenon shall be examined, considering not only the Greek Maritime policy independently, but placing it within the wider framework defined by the European Union corresponding strategy and effective legislation.

Considering the above, this research aims at assessing to what extent is the Greek maritime policy affecting and restricting the ship-owner flag choice. The corresponding Greek policy will not be examined independently, but within the wider European Union shipping strategy, which also affects the flag competitiveness. For the completeness of the study, the selection criteria related to flag selection from ship-owners will be examined. Then, the Greek national policy within the EU framework will be evaluated. Differences between the Greek flag and the principal flags of convenience will also be presented, referring to the criteria identified. The measures undertaken by Greece will be evaluated. Based on the findings, recommendations for the improvement of the Greek registry will be proposed.

Based on the selection criteria the advantages and disadvantages of both flags of FOCs and traditional registries are explained. The comparison is assisted from a case study that examines the dominant ship owning country, Greece. The Greek registry characteristics are presented, along with the reasons that lead the Greek ship-owners to choose other registries than the Greek flag. Lastly, the impact as well as reaction from maritime countries will be also evaluated.

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List of Abbreviations

DWT Dead Weight Tonnage

FOCs Flags of Convenience

EMSA European Maritime Safety Agency

EU European Union

GT Gross Tonnage

IMO International Maritime Organization

ISM Code International Safety Management Code

MARPOL The International Convention for the Prevention of Pollution from Ships

PCASP Privately Contracted Armed Security Personnel

PSC Port State Control

SOLAS Safety of Life at Sea

T/C Time Charter

UNCLOS United Nation Convention for the Law of the Sea

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1. Introduction

1.1 Overview

The international trade and the global economy depend in a great extent on maritime transport. It is considered that approximately 90 per cent of products and raw materials globally are transferred by ships (UNCTAD, 2018). It is also anticipated that shipping activity will be increased by almost 3 per cent annually for the 2019–2024 period (UNCTAD, 2019). Additionally, for most of the goods to be carried, there are no alternatives regarding their transportation, for financial reasons as well as due to feasibility. The contribution therefore of the marine transportation sector to global economy is principal and will be constantly strengthened.

The shipping industry has two dominant characteristics. Its international character and the highly competitive environment in which ships operate. Shipping companies strive daily to achieve high effectiveness and optimal vessel employment. A ship is a very expensive asset that crosses daily sea borders and changes countries, being subject each time to different legislative, financial and commercial regimes and regulations. A basic element that defines the cost of all shipping operations is the flag state in which each vessel is registered. This choice is very crucial for the ship-owners as it enables them to cut down the operational cost of the vessel and rendering it competitive compared to competitors. Additionally, the role of the flag is of principal importance as it has moreover an impact on critical issues including the security of the crew, the cargo, the insurance of the vessel and many other factors examined in this research. Each company and ship need also to comply with a vast quantity of regulations, mainly imposed by the International Maritime Organization (IMO). Despite however its international and global character, the shipping sector is actually a divided industry. Vast differences can be identified between the industrialized developed countries (Europe, USA, SA Asia), which are in constant need for raw materials and on the other hand the developing countries. As a result, the existing differences consist mainly of different labor costs, syndicated and non-syndicated workforce, and finally between open and closed registries (traditional registries).

Although the ship registration was initially an obligation under international law, it has gradually gained importance and has been converted in a crucial decision for the ship owner. According to the UN Convention on the High Seas a vessel shall possess “*a genuine*” link with its flag country.(UN, 1982) Existing regulations however enable vessels to use freely almost any flag they desire, regardless of their ownership status, the owner nationality and the geographical location where the shipping company has its premises. The above are a result of the universal and international character of the shipping sector.

The latest years it has been common phenomenon for many ship owners to select registry in flags others than the national flag .The popular

therefore approach for ship owners, to use in their ships a different flag that their nationality, has been established with the term “flagging out “ and the new flags that were selected are known as “Flags of Convenience “ (FOCs). The term open registry may be also used. It refers to a registry that does not imposes strict requirements for ship registration and generally facilitates the ship owner to employ his fleet with significant ease compared to traditional registries. The reason is that these countries do not exert significant control over the compliance with national and international regulations, as those established by IMO and MARPOL. (Alexopoulos and Fournarakis, 2015)

In the last decades, the number of vessels registered to countries other than the ship owner / company nationality constantly rise. Despite the fact that financial related aspects of the registration procedure are considered the principal reason, additional parameters such as company policy and objectives, the market that the vessels are employed, as well as political reasons have an impact as well on the flag decision. (Metaxas, 1974) The extent of the phenomenon, is proved by the fact that today more than half of the contemporary world fleet is registered in FOCs. More specifically, Panama, Liberia and the Marshall Islands that together own only 169 ships have in their registries almost 42 per cent of the global fleet, expressed in DWT and approximately 15.500 ships in their registries. (UNCTAD, 2020).

It is also noteworthy that not only the principal FOC¹ countries increase the DWT (Dead Weight Tonnage) of their registered fleets, but on the same time other countries providing open registry services increase as well. Thus, along with the traditional countries such as Panama, Liberia and Marshall, Malta and Cyprus have also emerged as open registries, included therefore in the latest list of FOC countries. This is attributed to the fact that for these countries the development of an open registry is a source of revenue. However, these countries rarely possess maritime tradition or the infrastructure in order to be capable of carrying out their duties as flag states.

Today, FOCs represent the majority of the total merchant fleet, with this percentage to have increased from the corresponding 2019 data. The Liberia registry in particular demonstrates an impressive annual growth rate of 6 %, although the flag is not in the Paris MoU white list. (UNCTAD, 2020) This evolution has an impact on the traditional ship owning countries as well, which are obliged to undertake specific measures in order for their registries to remain competitive and prevent to some extent the phenomenon of flagging out.

¹ Panama, Liberia and the Marshall Islands

1.2 Research problem

Although the corresponding percentage of global merchant fleet indicates that Europe remains an attractive market, based on the fleet percentage owned by EU countries, the number of vessels selecting a flag outside the EU reveal that Europe encounters a constant competitive pressure. Greece, in accordance, increases the capacity of its merchant fleet each year but the Greek registry appears to be less competitive compared to the leading flags of convenience. The number of Greek ship owners selecting an open registry for their vessels constantly increases, resulting correspondingly in the decline of the national fleet. (Greek Shipping CO-Operation Committee, 2020) The fleet registered under the Greek flag has decreased in terms of ship numbers, DWT and GT. On the other hand, the total merchant fleet, controlled by Greek ship owners (national and other flags) constantly rises.²For years it has been believed that it was the financial factors that were responsible to a great extent for the flagging out. Later, the establishment of the Port state control inspection and the demonstration of the lower performance of the open registries was considered a sufficient response from national registries that would deter ship owners from such a selection. Although however the latter³ adopt financial measures similar to open registries, as well as they improve the corresponding administrative procedures, flagging out continues. This demonstrates that the assessment regarding the relevant factors is incomplete. Existing literature as will be presented in the corresponding chapter, mainly consists of researches and articles that refer to the selection criteria or examine the role of ship owners and seafarers. The scope of this research is to assess the role of the state in the registry competitiveness. Since Greece will be examined, the role of the wider regime, defined by EU will also be assessed

1.3 Research Objective

Considering the above, scope of this research is the assessment of the role of Greek primarily and European policy secondarily in the formation of competitiveness of the national European registries. The extent to which the Greek national policy is restricting the ship owners' decision will be assessed. Although each country independently selects the measures that are believed to support the competitiveness of their registries, there exist limitations imposed by the common European legislation. The study will present the advantages and disadvantages of both national flags and flags of convenience and then focus on the Greek registry. For the completeness of the study, the criteria used by ship-owners to choose the flag of their vessels to fly with will be examined along with the economic, trade and transport impact of the flagging out phenomenon. The research after identifying the gaps in the Greek maritime and wider EU policy, will propose possible

² Analytical numerical data will be provided in part II of this research

³ National registries

recommendations that will improve the Greek registry and render it again a seductive choice for Greek ship owners.

1.4 Research questions

In relevance with the above objective the project has the following research question that will facilitate the realization of the research.

To what extent is the Greek maritime policy affecting the ship owner flag choice.

And the corresponding sub questions:

What are the characteristics, advantages and disadvantages of the flags of convenience and the criteria that motivate ship owners regarding the selection of the suitably registry for their fleets?

What is the role of the EU Maritime Policy in the competitiveness of EU countries' registries?

Which are the shortcomings of Greek policy regarding the competitiveness of the registry?

Which improvements can be made in the Greek maritime policy to increase the registry competitiveness?

1.5 Research outcome

The outcome of this proposed research will facilitate the reader to understand the role of the national policy in the formation of the national registry competitiveness. It will identify additional measures that need to be established, based on the shortcomings of the national policy. The research will in this way highlight the significance of the flag selection for the profitability and the reliability of the shipping company. The in-depth examination of the subject may also reveal issues that are not addressed yet, since many countries, like Greece, have already made legislative modifications to upgrade their flag status and improve its characteristics in order to provide a more competitive registry.

1.6 Research method

The study has mainly a theoretical character since it refers to legal, administrative and commercial concepts and their corresponding theory. Therefore, the approach will be principally qualitative, based on existing literature, previous studies and relevant articles. Additionally, quantitative data will be provided to facilitate the understanding of the theoretical concepts and ideas that will be presented. The numerical data will enable the visualization of the extent of the phenomenon (flagging out) and the assessment of the

significance and the effectiveness of each flag .The research does not require the collection and use of primary data , since there exists in the bibliography an efficient amount of secondary data from multiple sources . To sum up, the research method will be qualitative based on existing secondary data.

Additionally, valuable material to this study are the various interviews provided by Greek ship-owners. Their opinion has been a useful pilot towards the understanding of the shortcomings of the Greek registry. The assessment of this material and the collection of the points they highlight reveals the Greek policy aspects that need to be tackled.

1.7 Research structure

The Thesis includes two parts. The first part (I) includes the necessary background regarding the history, the conditions that created the flags of convenience, their characteristics, advantages and disadvantages. It will provide all the essential information and will introduce the second part that is more specialized. Part II is the main research that examines the characteristics of European and then Greek legislation and their impact in the competitiveness of registries in Europe. It identifies in particular the shortcomings of Greek maritime policy that reduce the competitiveness of Greek registry. Next, it presents suitable recommendations that derive from the identification of the identified shortcomings.

The first chapter of this study is the introduction where the basic concepts and ideas that will be further used, as well as the research objectives are presented. Chapter two provides all the knowledge background required regarding registration and registries. Chapter three is the literature review that will reveal gaps in the registration issues that call for further research. Chapter four will focus on selection criteria. Assessment of the EU maritime policy. Greek policy and its impact in Greek flag competitiveness are presented in chapter six, supported by quantitative data. The assessment of the national policy, the shortcomings, the measures undertaken as well as necessary modifications to existing policy, that contribute towards the improvement of Greek registry are also presented. The next three chapters are findings, recommendations and conclusions.

2. Vessel Registration

Before addressing the flag selection criteria, it is essential to present the basic definitions regarding the vessel nationality, the procedure of registration and the corresponding impact in the vessel employment, both for the shipping company as well as for the flag state.

2.1 Ship nationality

The term ship is attributed to every vessel with a total capacity of at least ten GT which sails self-powered in the sea. Article 90 of the UNCLOS defines that every state has the right of freedom of navigation from vessels bearing its flag. The above law proves the relationship between a state and a vessel. The vessel actually has to belong to a specific state in order to be able to use the right of freedom of navigation. (UNCLOS, 1982). This relationship is reinforced by the state national legislation and is expressed with the establishment of the concept of ship nationality. As a result, the nationality of a vessel results in the existence of specific rights and obligations for the said ship. (Alexopoulos and Fournarakis, 2015) Vessel without flag or nationality cannot participate in trade and call in ports. Every vessel is therefore under the obligation to be registered in a specific state, obtaining in this way nationality and the right to sail and consequently to trade. By completing the registration procedure, she is subject to the said country legislative and regulatory regime. The procedure itself, although depends on common principles, depends on each state's specific law provisions.

2.2 Registration

The ship, as individuals, needs to have a permanent and legitimate residence. This location for ships is their port of registry that is selected freely by the ship owner and is used not only as a vessel feature but also as the place that important procedures related with the ship are realized (mortgage, judicial sale, purchase and sale). The above are accomplished through the registration process. Registration is the obligatory established procedure that defines the requirements and steps to be realized in order for a ship to be entered (registered) to a special national catalog (registry), kept by port police authorities. The entry to the register includes the following information: Name, international call sign, dimensions, capacity, propulsion scheme, ship owner data, and the ownership title. The registration provides the vessel with the ship's certificate of registry, a document than shall be kept on board. The corresponding port of registry is written beneath the vessel name at the bow. The procedure enables the vessel to raise the national flag and provides her with the corresponding nationality. The registration requirements vary from state to state and generally express the state interest and orientation towards the shipping industry. The vessel, when sailing in international waters, is subject only to the legislation and control of her flag state. This control includes administrative, technical as well as social aspects of the ships. The Greek law dictates that a vessel is considered to have the Greek nationality, if it is registered in the registry of a Greek port, or alternatively to a registry of a Greek consular port authority, with the requirement that the registration will be

transferred to a Greek port within the same year. The registration process provides the vessel with the following, according to public law: (Alexopoulos and Fournarakis, 2015)

- The ship is related to the said state, being subject to its jurisdiction regarding safety, environmental protection and manning requirements.
- Has the right to raise the state flag.
- Is entitled to diplomatic and naval protection as well as consultant assistance.
- Further rights include the neutrality status in war and conflicts.

The private law arranges additional provisions, such as the protection of both the registered ship-owner and the security interests (mortgages) of the vessel.

2.2.1 Registration Procedure

Apart from the requirements, it is also the procedure itself that varies from state to state. European Union for example has not established specific registration rules and each country is entitled to impose its own requirements. Both requirements and procedure play a significant role and are principal selection criteria. Typical requirements include the ownership status or the company residence. The differences in the administrative and bureaucratic procedures may also form an important decision factor regarding the flag selection.

The completion of the registration process provides the ship with the Ship's certificate of registry, with a copy to be kept on board the ship in case that is requested from port authorities. The certificate that confirms the nationality is the "Certificate of Registry", issued from the corresponding registry that includes the vessel general and technical characteristics.

2.2.2 Flag state

The registration process provides the vessel with her nationality and introduce the term of the flag state. The ship is subject to the authority of the State after her registration, and the State assumes national and international obligations for the vessel. Flag States have been granted from UNCLOS the right to sail ships on the high seas and the right to define the requirements for registering ships under their flag and giving their nationality to these ships, (Art. 90 and 91 of UNCLOS 82) Additional obligations and rights of the flag state are the following : (UNCLOS,1982)

- The flag State is under the duty to exercise effective jurisdiction and control over administrative, technical and social matters on their ships on the high seas.
- Maintain register of ships containing particulars of ships flying its flag.
- Assume jurisdiction over the ship, the master, officers and crew.

- Develop and apply measures referring to the safety of navigation and seaworthiness of the ship.
- Execute an investigation whenever another state reports inadequate exercise of control or jurisdiction over any ship flying its flag and undertake any remedial action when necessary.
- Execute or cooperate with other States in the carrying out of investigations in any case of marine casualty or incident of navigation.
- Specific obligations with respect to pollution prevention are also allocated to flag State.

2.2.3 World fleet

An additional concept that needs to be understood is that of the difference between sea ownership and registration. Ownership refers to the nationality of the ship owner whereas registration refers to the flag that the vessel flies. As it will be demonstrated, the above do not coincide for the majority of the merchant fleet. Before assessing the evolution of open registries, it is important to notice the constant increase of the global merchant fleet. Despite the 2009 crisis and the Covid-19 impact, the global merchant fleet, both in number as well as in terms of capacity expressed in DWT gradually increases. (UNCTAD, 2019) This is attributed to the advantages that sea transportation offers, such as economy of scale, since larger vessels achieve greater revenues without significant rise of the corresponding operating expenses.

2.3. Ownership

World fleet data	2016	2017	2018	2019	2020	2021
000' DWT	1,794,029	1,850,606	1,920,052	1,972,007	2,053,514	2,116,401
Growth rate DWT	3.37%	3.15%	3.75%	2.71%	4.13%	3.06%
Number of Ships	49,445	50,090	51,480	52,417	53,275	53,973
Growth rate number of ships	2.03%	1.30%	2.78%	1.82%	1.64%	1.31%
Average ship's size	36,283	36,946	37,297	37,622	38,546	39,212
Growth rate avg size of ship	1.31%	1.83%	0.95%	0.87%	2.46%	1.73%
Controlled fleet by top 15 nations	80.79%	79.64%	81.11%	81.30%	81.22%	80.77%

Figure1: World fleet ownership data 2016-2021

(Source: <https://transportgeography.org>)

As demonstrated in figure 1 the growth rate of the world fleet constantly increases from 2016, with the exception of the 2019, due to the outbreak of the Covid-19. Another remark is the increasing growth rate in the average size of ships, evolution that is without doubt attributed to the economy of scale benefits. The countries' ownership relative status however regarding the first 15 nations remains almost unchanged, in a percent about 80%, as displayed in figure 2.

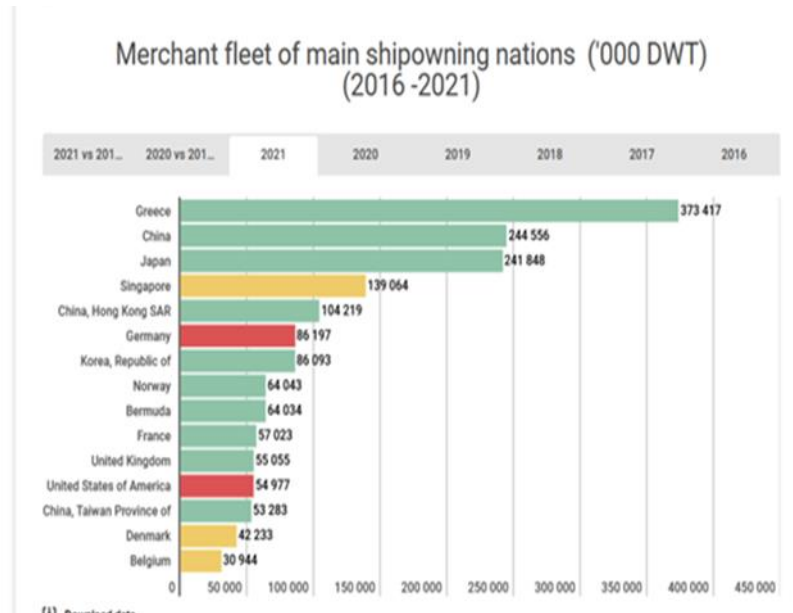


Figure 2: Merchant fleet of main ship owning nations 2016-2021
(Source: infomaritime.eu)

More specifically, at the end of 2020, the first five ship-owning countries contribute 52 per cent of global fleet tonnage. Greece remains in the first place contributing 18 per cent, followed by Japan (11 per cent), China per cent Singapore (7 per cent), and Hong Kong SAR (5 per cent). In 2021 top 15 countries by controlled DWT was: Greece, China, Japan, Singapore, China – Hong Kong SAR, Germany, Republic of Korea, Norway, United States of America, Bermuda, France, Taiwan (province of China), United Kingdom, Denmark and Belgium.

Table 2.3 Ownership of world fleet, ranked by carrying capacity in dead-weight tons, 2020									
Country or territory of ownership	Number of vessels			Dead-weight tonnage					
	National flag	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as a percentage of total	Total as a percentage of total	
1	Greece	671	3 977	4 648	60 827 479	303 026 753	363 854 232	83.28	17.77
2	Japan	909	3 001	3 910	36 805 225	196 329 652	233 134 877	84.21	11.38
3	China	4 569	2 300	6 869	99 484 023	128 892 849	228 376 872	56.44	11.15
4	Singapore	1 493	1 368	2 861	74 754 209	62 545 517	137 299 726	45.55	6.70
5	Hong Kong, China	883	807	1 690	72 505 185	28 452 208	100 957 393	28.18	4.93
6	Germany	205	2 299	2 504	8 340 596	81 062 481	89 403 077	90.67	4.37
7	Republic of Korea	778	837	1 615	14 402 899	66 179 736	80 582 635	82.13	3.93
8	Norway	383	1 660	2 043	1 884 535	62 051 275	63 935 810	97.05	3.12
9	Bermuda	13	529	542	324 902	60 088 969	60 413 871	99.46	2.95
10	United States	799	1 131	1 930	10 237 585	46 979 245	57 216 830	82.11	2.79
11	United Kingdom	317	1 027	1 344	6 835 508	46 355 337	53 190 845	87.15	2.60
12	Taiwan Province of China	140	850	990	6 636 271	44 255 009	50 891 280	86.96	2.48

Figure 3: Ownership of world fleet expressed in DWT 2020

(Source: UNCTAD)

Between 2020 and 2021 a change takes place in the second position with China to overcome Japan. This is very important since demonstrates the orientation of China towards the strengthening her fleet. Just six years ago the two countries had a significant difference of almost thousand vessels and 80.000 DWT, as demonstrated in figure 6 that provides ship owning data for 2015. This is explained if we consider the growth rates data in Figure 4, which demonstrates the growth of each country's fleet.

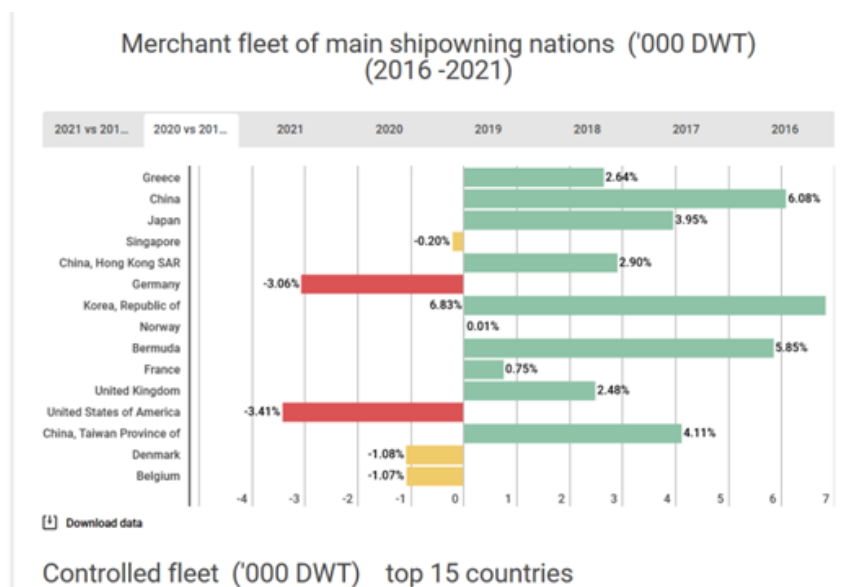


Figure 4: Rate of growth of world fleet 2020-2021

(Source: infomaritime.eu)

All top ship owning countries demonstrate a rise in their fleet, with the only exception being Singapore that has a slight decrease of 0.20 per cent. China has the highest growth rate of 6.08%, where Greece, Japan and Hong Kong have similar growth rates. It is also noteworthy that two of the world's strongest economies, USA and Germany, demonstrate an important decrease rate of approximately 3%.

Almost half of the world's tonnage belongs to Asian companies as displayed in figure 5. Europe ship-owning countries account for 41 per cent and from Northern America for just 6 per cent. Rest of the world, including Latin America, the Caribbean, Africa and Oceania, all together have just over one per cent or less. This distribution is in accordance with the corresponding financial status of each continent and country.

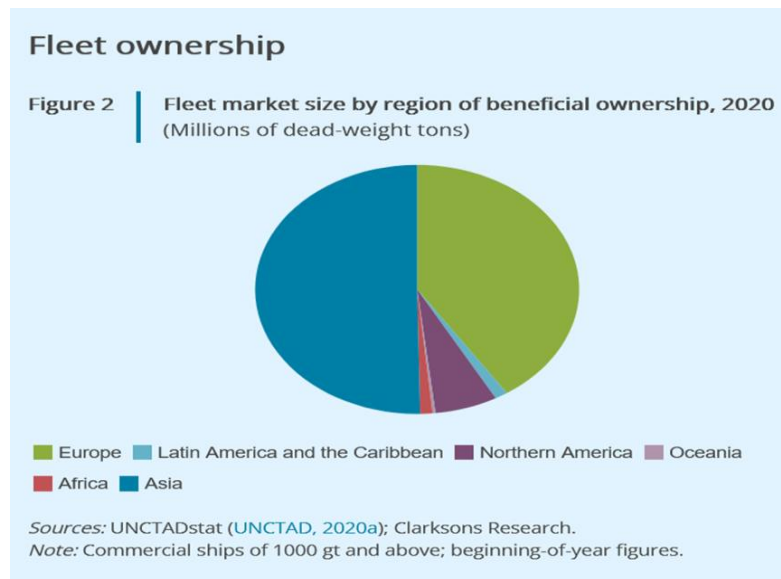


Figure 5: Fleet ownership per continent in 2020

(Source: UNCTAD)

The previous five-year period has the same findings. Comparing world merchant fleet data from 2021 with data from 2015 (5-year period) – top 3 ship owning countries have remained the same: Greece, Japan and China. In total the world merchant fleet accounted for 2 116 401 (DWT '000) and 53 973 in terms of number of ships over 1000 GT.

Table 2.3. Ownership of the world fleet, as of 1 January 2015 (dwt)

Rank (dwt)	Country/territory of ownership	Number of vessels			Dead-weight tonnage				
		National flag	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as a % of total	Total as a % of world
1	Greece	796	3 221	4 017	70 425 265	209 004 526	279 429 790	74.80%	16.11%
2	Japan	769	3 217	3 986	19 497 605	211 177 574	230 675 179	91.55%	13.30%
3	China	2 970	1 996	4 966	73 810 769	83 746 441	157 557 210	53.15%	9.08%
4	Germany	283	3 249	3 532	12 543 258	109 492 374	122 035 632	89.72%	7.04%
5	Singapore	1 336	1 020	2 356	48 983 688	35 038 564	84 022 252	41.70%	4.84%
6	Republic of Korea	775	843	1 618	16 032 807	64 148 678	80 181 485	80.00%	4.62%
7	Hong Kong, China	727	531	1 258	56 122 972	19 198 299	75 321 271	25.49%	4.34%
8	United States	789	1 183	1 972	8 731 781	51 531 743	60 263 524	85.51%	3.47%
9	United Kingdom	477	750	1 227	12 477 513	35 904 386	48 381 899	74.21%	2.79%
10	Norway	848	1 009	1 857	17 066 669	29 303 873	46 370 542	63.20%	2.67%
11	Taiwan Province of China	117	752	869	4 681 240	40 833 077	45 514 317	89.71%	2.62%
12	Bermuda	5	317	322	289 818	41 932 611	42 222 429	99.31%	2.43%

Figure 6: Ownership of world fleet expressed in DWT 2015
(Source: UNCTAD)

2.4. Registries

The previous paragraph presented the current conditions and the growth rate regarding ship owning countries. The next part of the research will present the corresponding data for ship registries. This comparison will provide useful data regarding the ship owners' selection, the rate of flagging out as well as the percentage of the world merchant fleet that is registered under a foreign flag.

Panama with 7886 vessels (329 million dwt), Liberia with 3716 vessels (274 million dwt) and the Marshall Islands with 3683 ships (262 million dwt) are the leading flags of registration followed by Hong Kong SAR and Singapore that have nevertheless significantly lower registries. Liberia and the Marshall Islands demonstrated the strongest increase in registrations over recent years. In the same time Panama demonstrates a slight reduction (1.3 per cent) Leading registries for years 2020 and 2019 are presented in figures 7 and 8.

Table 2.5 Leading flags of registration by dead-weight tonnage, 2020

	Flag of registration	Number of vessels	Share of world vessel total (percentage)	Dead-weight tonnage (thousand dead-weight tons)	Share of total world dead-weight tonnage (percentage)	Cumulated share of dead-weight tonnage (percentage)	Average vessel size (dead-weight tonnage)	Growth in dead-weight tonnage 2020 over 2019 (percentage)
1	Panama	7 886	8	328 950	16	16.0	41 713	-1.3
2	Liberia	3 716	4	274 786	13	29.3	73 947	13.0
3	Marshall Islands	3 683	4	261 806	13	42.0	71 085	6.5
4	Hong Kong, China	2 694	3	201 361	10	51.7	74 744	1.3
5	Singapore	3 420	3	140 333	7	58.5	41 033	8.3
6	Malta	2 207	2	115 879	6	64.2	52 505	4.7
7	China	6 192	6	100 086	5	69.0	16 164	3.0
8	Bahamas	1 381	1	77 869	4	72.8	56 386	0.1
9	Greece	1 294	1	68 632	3	76.1	53 039	-0.7
10	Japan	5 041	5	40 323	2	78.1	7 999	3.4
11	Cyprus	1 065	1	34 533	2	79.8	32 425	-0.1
12	Indonesia	10 137	10	25 574	1	81.0	2 523	6.9
13	Isle of Man	356	0	24 129	1	82.2	67 779	-13.5
14	Danish International	575	1	23 044	1	83.3	40 077	3.0

Figure 7: Leading flags of registration by DWT in 2020

(Source: UNCTAD)

Greece is in the ninth position demonstrating a slight decrease. China is the first registry between traditional ship owning countries, followed by Greece.

	Flag of registration	Number of vessels (percentage)	Vessel share of world total	Dead-weight tonnage (1,000 dwt)	Share of world total dead-weight tonnage (percentage)	Cumulated share of dead-weight tonnage	Average vessel size (dwt)	Growth in dead-weight tonnage 2019/2018 (percentage)
1	Panama	7 860	8.16	333 337	17	16.87	44 930	-0.57
2	Marshall Islands	3 537	3.67	245 763	12	12.43	69 878	3.23
3	Liberia	3 496	3.63	243 129	12	12.30	69 704	7.98
4	Hong Kong, China	2 701	2.80	198 747	10	10.06	75 083	8.17
5	Singapore	3 433	3.57	129 581	7	6.56	39 785	1.16
6	Malta	2 172	2.26	110 682	6	5.60	51 890	1.39
7	China	5 589	5.80	91 905	5	4.65	19 646	8.16
8	Bahamas	1 401	1.45	77 844	4	3.94	56 449	1.26
9	Greece	1 308	1.36	69 101	3	3.50	64 339	-4.28
10	Japan	5 017	5.21	39 034	2	1.97	10 263	4.23
11	Cyprus	1 039	1.08	34 588	2	1.75	34 110	-1.36
12	Isle of Man	392	0.41	27 923	1	1.41	71 232	2.28
13	Indonesia	9 870	10.28	22 880	1	1.21	4 674	5.54

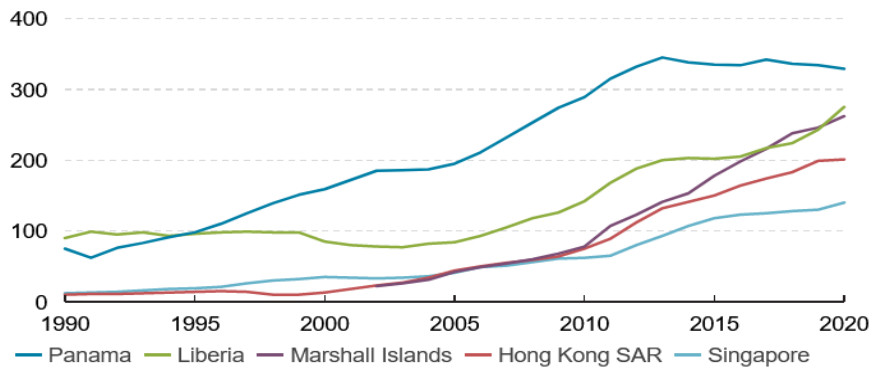
Figure 8: Leading flags of registration by DWT in 2019

(Source: UNCTAD)

By comparing the corresponding data of 2019, we observe the impressive growth of the Liberian registry that replaced Marshall Islands in the second position of the corresponding list. The rest of the list does not provide any significant difference.

Figure 9 provides the growth rate for each one of the top five open registries from 1990 until 2020. All the registries demonstrate a constant increase in their registered fleet. The only exception appears to be Panama that does not demonstrate a trend for increase after 2015. It is also noteworthy that the slope of the graphs for all states increases significantly after 2010. This can be attributed to the financial crisis. It is therefore understood that the adverse market conditions dominating in the shipping industry after the 2009 global financial crisis had an impact in the registration choice as well. Ship owners, aiming at cutting down their expenses and achieve financial sustainability selected open registries, motivated mainly by financial factors.

Figure 3 | Vessels capacity in top 5 registries
(Millions of dead-weight tons)



Sources: UNCTADstat (UNCTAD, 2020a); Clarksons Research..

Note: Commercial ships of 100 gt and above. Beginning-of-year figures. Ranked by the values as of 1 January 2020.

Figure 9: Top five Leading flags of registration by DWT 1990- 2020

(Source: UNCTAD)

Additional data can be provided from the detailed graph for each registry. The corresponding for Marshall Island is provided in Figure 10 whereas figure 11 displays the evolution for the Liberian flag.

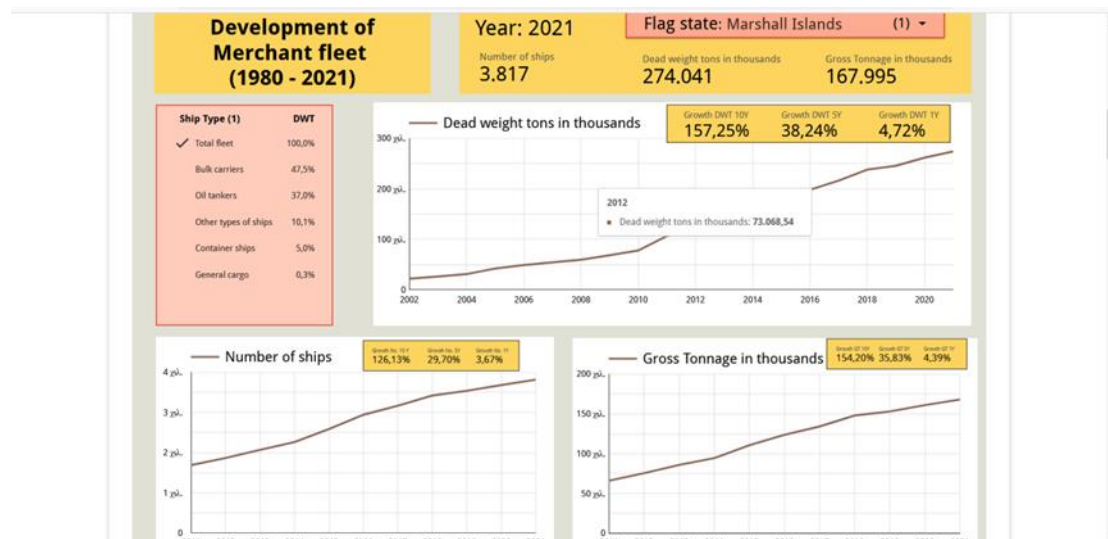


Figure 10: Marshall Island Registry 2021

(Source: UNCTAD)

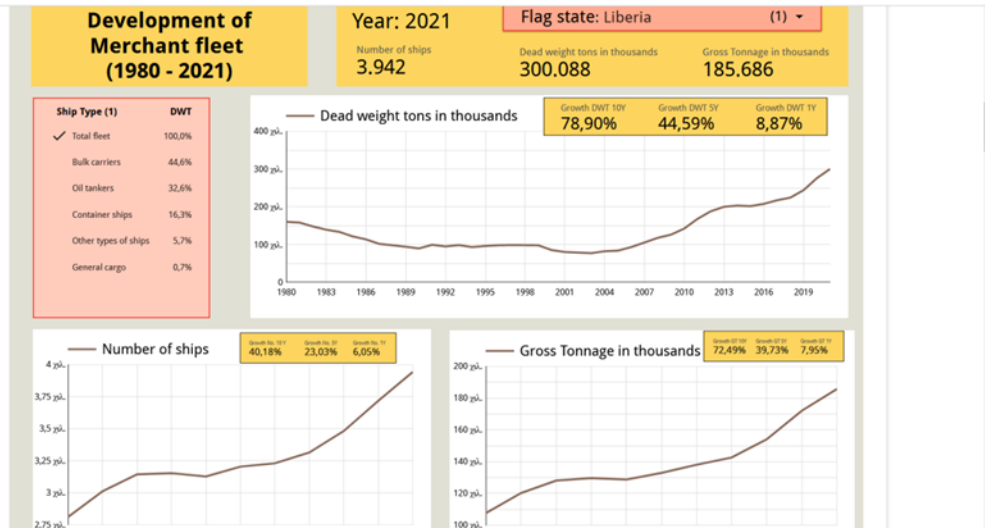


Figure 11: Liberia Registry 2021

(Source: UNCTAD)

The above data as deriving from the corresponding graphs confirm the constant rise of open registries as well as of other countries offering maritime services and on the same time the shrinking of national fleets of traditional maritime countries. Although Greece has also experienced this reduction, it maintains the second position in Europe after Malta and ninth globally.

2.5 Flags of Convenience (FOCs)

This chapter provides the necessary information regarding the characteristics of open registries, starting from the circumstances that led to their creation. Then, with the help of tables and graphs, provides a qualitative analysis of the contemporary world fleet.

The term FOC is generally understood as the practice of registering a merchant ship in a country different from the state where the beneficial owner of the ship and the shipping company are located. ((Marine traffic, 2018). An alternative definition describes the term as "the flag of countries with legislation that facilitate the registration for ships owned by foreign persons or companies. This condition is the exact opposite of the traditional maritime countries where the registration procedure and requirements are subject to strict criteria and result in different obligations.

Despite the fact that registration is related to a state function, the majority of FOC registries are not government agencies, but private companies located outside the actual flag state or operating from other premises. Typically, this is authorized by the actual flag state legislative framework and the revenues are shared between the company and the said country. In fact, the registration is assisted by the country legislation since it is a source of income for the state, not having generally direct relation with the shipping industry. For example, regarding the Panama flag, one of the

contemporary dominant FOCs, the Panama Maritime Authority does not demonstrate any relationship with the procedure, strengthening the above observation. Actually, the registration process takes place through agencies consisting from various consultants. The registries of Liberia and Marshall Islands moreover, are not situated in the territory of the said countries, but in the US.

2.5.1 Background (Carlisle, no date), (Liberia Maritime Authority, 2020)

The examination of the background and the origins of the open registries will reveal the motivation behind the start of the flagging out phenomenon. It will become clear that although there have always existed financial reasons, they do not consist the only factors that contribute towards the selection of a flag other than the national.

The term "Flag of Convenience or false flag has its origins in the use of Spanish flag by English vessels in the Middle Ages. The objective was to avoid trade restrictions, especially in the West Indies. (Marine traffic, 2018) It was later associated with pirates, aiming at attacking other ships without providing them with early warning. In the 17th century English fishermen were using the French flag in their vessels to avoid British fishing restrictions. Later, in the 18th century, after the slavery abolishment, many vessels, mainly from USA and Latin America that were still carrying slaves, were using different flags to avoid inspection.

The term "flag of convenience" with its contemporary meaning was first introduced in the 1950s. (Toh and Susilowidjojo, 1987). The practice however of registering ships in countries other than the ship owner's nationality dates back to 1915, when in the USA the Seamen Act was introduced. This legislative provision was beneficial for seafarers, as established essential rights. It defined safety issues, working hours, payment rights such as improved wage scale and requirements for on board life, including alimentation. (Liberia Maritime Authority ,2020) However, this evolution was not welcome from American ship owners. Disappointed by the excessive bureaucratic shipping regulations and the additional costs due to the 1915 Act were finding ways to circumvent the above obstacles, resulting in additional costs for US registered ships. In the same period, the rest shipping countries had not imposed similar strict regulations. The American ship owners started therefore to find a way to relocate their companies in other countries. When Panama became an independent state after the US support , the ship owners took advantage of the opportunity. More specifically, the official state encouraged US business owners to collaborate with Panama in order to support the new country. Ship owners then, by registering their ships in this country, succeeded in reducing labor costs and avoid the Act provisions. Panama became therefore the first open registry in 1924, consisting of just fourteen vessels with a Dead weight tonnage DWT of 83776MT. In 1949 however, political instability in Panama created the need for a new registry. It

was then that Liberia emerged as flag of convenience. The Liberian regime was considered politically stable and friendlier to the US. The registry was managed by Liberian Services Company. In 1992, a new firm, International Registries Incorporated replaced Liberian Services Company. It was this firm that established the Marshall Islands Registry, as the political condition in Liberia deteriorated.

A different situation but with the same result gave birth to FOCs in Europe. After the first World War, the German standard oil shipping company was trying to find a way to prevent the ships of its sister company from being seized from UK. The practice that they developed was to transfer the said vessels to a new company that was named Baltic-American Petroleum Import Company (Bapico). The new firm was deliberately located in the city of Danzig in 1919. The selection succeeded in the establishment of a shipping company, that since was located outside Germany, was not subject to the measures imposed to Germany from the Allies, winners of the war, under the treaty of Versailles. The vessels therefore with home port the port of Danzig were immune from seizure after Germany was defeated in the war. It is noteworthy that although the majority of Danzig population was Germans, the city was considered as a free city, aiming at providing Poland with a harbor. This unusual regime gave Danzig the characteristics of a self-governing state, which actually was the first open registry in Europe. Taking advantage of the special regime, the Bapico Company managed to increase the fleet to thirty-two ships in 1934. It is noteworthy that the fleet remained registered in Danzig, even after the reparation measures were no longer effective and the ships could without consequences return in a German registry. The reason was from that early age common with the modern criteria: German legislation and labor regime were not beneficial for the management of a shipping company. In 1933 however the political situation in Germany changed and due to the foreseen outbreak of war, the Bapico fleet was transferred to Panama, which had already been established as an open registry as explained in the previous paragraph.

The above brief presentation of the Danzig and Panama open registries provide useful information and demonstrate that the selection criteria, despite the changes that have occurred in the meanwhile in the shipping industry, have not significantly altered.

Open registries are not traditional maritime countries. They are usually not involved in maritime trade. Liberia and Marshall Islands were initially created as agencies providing alternative registries to US ship owners. The registration of foreign ships has nevertheless become a profitable business for FOC states. Therefore, the evolution of these states to maritime registers for was selected as a source of revenue. The open registries have emerged as a response to the specific demands of shipping industry. These countries enable shipping companies as well as independent ship owners to transfer their vessels in another country with minimum requirements and a very easy to implement and fast procedure. Although today exist many countries

providing registration services, the beginning took place with Liberia and Panama.

In 1968, Liberia was already the dominant flag state, having a bigger registry than traditional ship owning countries. In 2009, more than half of the world ships belong to open registries, with Panama, Liberia, and Marshall Islands flags to represent the impressive 40% of the merchant fleet (Sea news, 2017)

2.5 .2 Flagging out

When a ship-owner considers that the policy or even specific elements of his country approach towards maritime industry and trade are not favorable, he usually selects to register his vessels in another country. This procedure is named flagging out. The decision is facilitated by the minimum requirements imposed from open registries. The main reasons therefore that lead a ship-owner to such a choice include the following: (Alexopoulos and Fournarakis, 2015)

- The registering state enables ownership from non-residents
- The registration procedure is quite simple
- The taxation is favorable or even negligible compared to other registries
- The flag state is not a traditional ship owning country and therefore the requirements and standards regarding compliance to maritime industry regulations are quite low. Additionally, the inspection regime is loose.
- There do not exist manning restrictions

One additional reason has to do with the fact that the said state, due to the lack of knowledge, or procedures does not have the necessary mechanisms to impose and ensure the compliance with national or international regulations. Many times, this inability was deliberate, in order for the state to attract vessels for registrations, that otherwise, due to lack of seaworthiness would not be able to ensure the necessary documentation for trade. (Alexopoulos and Fournarakis, 2015)

The phenomenon of flagging out has resulted in the establishment of different types of registries that are next presented:

- Traditional home registries

The ship owner has the nationality of the registration country. International Law is based on the existence of a “genuine link” between the country and the ship. (Greece, Norway, UK, Netherlands, Spain)

- Open registries (flags of convenience):

The term refers to the countries whose laws enable and facilitate the registration of ships with the ship owners not to have the nationality of the said country. In other words, the opposite that is effective in traditional registries,

where the registration process is subject to stricter regulations and obligations. Thirty-four countries are currently identified as flags of convenience and can be further discriminated into:

Traditional FOCs, which coexist for many years along with national registries: (Panama, Costa Rica, Maldives, Hong Kong, Ondura, Antigua and Barbuda, Marshall Islands).

New FOCs, which emerged in the latest years as a cheap alternative, and are not yet targeted from port state control inspections (Saint Vicente and the Grenadines. Kiribati, Aruba, Vanuatu, Tonga

- Offshore registries.

Ship owners have the right to register their vessels in national registries but also to employ their vessels using the so called off shore registries, that provide favorable terms regarding the crew employment terms. The principal characteristics of the offshore registries include:

1. reduced requirements regarding the vessel manning
2. Taxation favorable arrangements
3. Registration in a country that relates with the traditional country,

but in a way that the new registry is independent, but can be considered as national as well

A basic feature of such a registry is the so-called bareboat chartering, which is the usual business practice for ships registered in offshore registries. The vessel, although initially registered in a country (usually a traditional home registry) has the right to use the flag of a second country for a specific period. During the chartering the initial (main) registration is temporarily suspended and becomes again effective after the termination of the charter. This method is also known as parallel or dual registration (Gulielmos, 1996).

- International registries

In order to encounter the flagging out, some countries established international registries, which actually are the national ones, with specific arrangements to be less strict. These do not include however the provisions regarding manning and seafarer's nationality. The first international registry was developed in France in 1986.

2.5.3 FOC Characteristics

This part of the research presents the FOC advantages and disadvantages that will facilitate the understanding of the selection criteria and the motivation of the ship owners.

2.5.3.1 Advantages (Sea news, 2017)

The selection of a flag of convenience generally enables a ship owner to reduce operational costs as well as to avoid compliance to specific regulations. The main advantages are next presented, categorized in sectors:

Legislation

Many countries do not possess either the infrastructure or the willing to monitor and control the registered vessels and consequently ensure their compliance to maritime regulations, mainly those imposed by IMO.

When a ship registers with a country, it possesses its nationality and is subject to the country's laws and regulations. Accordingly, the country is juridical responsible for the vessel and the crew regardless of their nationalities. It is also responsible to ensure compliance to IMO regulations. The corresponding inspections in open registries are not strict.

Administrative procedures

There is great flexibility in the registration procedure. Normally, a traditional ship owning country requires the shipping company to be established in the same country. The open registries overcome this requirement by offering a variety of easy and fast to implement alternatives. Thus, instead of the company to be a resident company, in open registries it may be a foreign maritime entity (FME), a limited partnership, general or limited partnership (LP), limited liability company (LLC), or qualifying foreign maritime organization. The Liberian registry additionally offers speed in the realization of the procedure. The managing or ship owning shipping company can be entered in the Liberian company register even three days before the vessel registration.

Financial

Seafarer remuneration

Due to the highly competitive environment and especially the current imbalance between supply and demand, ship countries are striving to cut down their operating cost as possible. Ship finance and the capital expenses are very important but the optimal management of the everyday expenses that will enable the minimization of the operating costs is also crucial. In this context, not only taxation, but wage rates minimization can also lead to significant reduction in expenses. An open registry usually does not impose strict requirements regarding the origin of the seafarers. (The Maritime Executive, 2013)

Differences in wage rates by seafarer origin is a parameter used by open registries. The majority of western registries impose requirements regarding employment of nationals onboard their ships. A ship-owner therefore aiming at cutting down on seafarer's wage will definitely select an open registry and then select the nationality of the crew that will provide him with a reduced cost.

Manning requirements

Linked with the above paragraph, open registries have minimum or not at all requirements regarding the seafarer nationality. One of the main advantages of FOCs is that there exists flexibility regarding manning issues whereas there exist not limitations regarding the crew nationality.

Administrative procedures

Open registries provide general fast and easy procedures and facilitate the process, by establishing minimum requirements in comparison to traditional registries. This is partially attributed to the private character of these companies.

2.5.3.2 Disadvantages

Disadvantages can be categorized as of two types. Those having an impact solely on the ship itself or the shipping company. Additionally, there also exist those that have an impact on the shipping industry

Legislative aspect

As explained previously, many substandard vessels select are registered in states where the requirements regarding the compliance to safety standards are not strict. The vessels are then provided with the necessary documentation for trading, but they have increased possibilities to be involved in maritime accidents. This practice has an impact not only in the substandard vessels but in the shipping industry as a whole. The reaction of the shipping industry, aiming to ensure safety on the sea and protection of the shipping environment was the establishment of the port state control inspection regime

FOC states typically do not have enough surveyors for all the ships on their register and their general maritime legal and administrative infrastructure is not sufficient to effectively monitor and enforce compliance. They are often unwilling or incapable of investing in law enforcement – either because it is economically convenient to ignore these laws so that vessels are not dissuaded from flying their flag or because enforcing the law is costly. Last but not least, when the beneficial owner of a ship is located outside its jurisdiction, it is difficult, if not impossible, for the FOC state to exercise effective control, for instance through fines or other penalties.

The impact of the above can be mainly found in safety and environmental pollution issues. The major shipping accidents in history, responsible for serious environmental pollution, had one parameter in common. All vessels were registered in FOCs. The case of Erica is perhaps the most characteristic, since the flag state had ensured the seaworthiness of the vessel. (Hamad, 2016)

Reliability

The reliability of the flag state is a factor that is always considered. The ability to comply with international regulations forms the basic feature that defines the quality and effective performance of a registry. The reliability mainly refers to safety issues and derives from the state performance in the port state control inspection of the vessels bearing the same flag. The reliability cannot always ensure the seaworthiness and lack of deficiencies for any vessels. It is nevertheless important from the charterer aspect, since they will always prefer a proven seaworthy vessel that has less possibilities to undergo failure or be delayed or even detained during port state control inspections. The reliability has an impact on the vessel employment as well, since the charterers or oil majors may have preferences on specific flags. In order to better assess the impact of the reliability factor to the flag selection decision it is considered necessary to provide a brief review of the port state control regime. The reliability the latest years is not something abstract but can be quantitatively defined. It is the result of the port state control inspections that provide specific data regarding the performance of all flag states. The data include important non-compliances and detentions. These data form a strong indication about the vessel performance and if it is going to be targeted by the port state control inspectors. (Alexopoulos and Fournarakis, 2015)

Port State control

Port State jurisdiction is the inspection of foreign ships in other national ports by Port State Control (PSC) officers (inspectors) for the purpose of verifying that the competency of the master and officers on board, and the condition of the ship and its equipment comply with the requirements of international conventions (e.g. SOLAS, MARPOL, STCW, etc.) and that the vessel is manned and operated in compliance with applicable international law.

IMO conventions include provisions which regulate the features of port State jurisdiction and the extent to which such jurisdiction should be exercised. It should be noted that, within the context of the implementation of IMO instruments, port State jurisdiction is a concept of an essentially corrective kind: it aims to correct non-compliance or ineffective flag State enforcement of IMO regulations by foreign ships voluntarily in port.

The exercise of port State jurisdiction for the purpose of correcting deficiencies in the implementation of safety rules is derived from the main IMO safety conventions. These corresponding conventions define the right of the port State to verify the contents of certificates issued by the flag State attesting compliance with safety provisions. They also authorize the port State to verify the certificates. Inspection can also take place if there are clear grounds to believe that the condition of the ship or of its equipment does not correspond substantially with the certificates.

The emergence and broad use of FOCs beside the impact in the ship owning countries, had consequences in the level as well. The fact that several

substandard vessels, that would otherwise find difficult to possess all the necessary documentation for their free trade, were given this opportunity by registering in countries different from the ship owner nationality. The subsequent problem was the degradation of safety. Many accidents were caused due to vessels that were not meeting the safety and seaworthiness criteria

The reaction was the establishment of the Port state control regime. The regime was therefore the result of the failure or inability of specific flag states to exercise the necessary control to their vessels. The control should consist of inspections that ensure that the vessels comply with all the competent requirements regarding safety and protection of the marine environment.

According to their performance in port state control inspections, the registries are classified as black grey or white. When a registry is included in the white list of the Paris MoU, then its reliability is ensured. The Paris MoU whitelist for 2019-2020 are presented in the figures 12 and 13. Greece demonstrates a reliable performance. It can be also observed that PSC is no longer the weak spot of FOCs. MI registry occupies the third position in 2020 white list.

RANK	FLAG	INSPECTIONS 2018-2020	DETENTIONS 2018-2020	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR
WHITE LIST						
1	Denmark	1,199	12	99	69	-1.80
2	Norway	1,559	18	126	92	-1.77
3	Marshall Islands	4,280	65	328	272	-1.72
4	Bermuda (UK)	169	0	18	6	-1.69
5	Netherlands	2,729	42	213	160	-1.68
6	Bahamas	1,851	27	148	111	-1.67
7	Greece	736	9	63	40	-1.63
8	Singapore	1,808	30	145	108	-1.59
9	Cayman Islands (UK)	410	4	38	20	-1.59
10	Japan	138	0	15	4	-1.54
11	Hong Kong (China)	1,741	31	140	104	-1.54
12	Liberia	4,017	89	308	254	-1.46
13	United Kingdom	922	17	78	51	-1.42
14	Malta	4,117	98	316	261	-1.40
15	Germany	570	10	50	29	-1.35
16	Turkey	732	14	63	39	-1.34

Figure 12: Paris MoU white list 2020

(Source: Paris MoU)

RANK	FLAG	INSPECTIONS 2017-2019	DETENTIONS 2017-2019	BLACK TO GREY LIMIT	GREY TO WHITE LIMIT	EXCESS FACTOR
WHITE LIST						
1	United Kingdom	1,072	10	89	61	-1.81
2	Norway	1,621	19	131	96	-1.77
3	Bahamas	2,124	27	169	129	-1.76
4	Netherlands	2,960	40	231	184	-1.75
5	Denmark	1,300	16	107	75	-1.72
6	Marshall Islands	4,481	69	342	285	-1.71
7	Singapore	2,014	29	160	122	-1.69
8	Hong Kong, China	1,973	31	157	119	-1.63
9	Japan	154	0	16	5	-1.63
10	Bermuda (UK)	223	1	22	9	-1.60
11	Germany	580	7	51	30	-1.58
12	Cayman Islands (UK)	487	6	44	24	-1.53
13	Liberia	4,288	88	328	272	-1.52
14	Sweden	310	3	30	14	-1.50
15	France	304	3	29	13	-1.48
16	Isle of Man (UK)	620	10	54	32	-1.43
17	Malta	4,652	110	355	297	-1.42
18	Belgium	226	2	23	9	-1.39
19	Italy	1,030	21	86	58	-1.36
20	Greece	822	17	70	45	-1.31
21	Cyprus (UK)	662	14	58	35	-1.24

Figure 13: Paris MoU white list 2019

(Source: Paris MoU)

By observing the data in the white lists of the years 2019 and 2020 we can see that the Panama flag is not in the first 15 positions, whereas the Marshall Island registry demonstrates a very satisfying performance. It is also very positive that the Greek flag has climbed from the twentieth position to the seventh.

Concealed ownership

FOCs enable shipping companies to conceal the ownership structure which is divided in multiple jurisdictions, making almost impossible to exercise law enforcement.

Labor rights

Shipping companies take advantage of FOCs limited regulations regarding labor rights. As a result, the ship owner is provided with the opportunity to employ seafarers at a lower cost. This results in minimum wages, below standard working conditions, non-compliance with established minimum working hours and rest periods. The ITF says that FOCs “make it more difficult for unions, industry stakeholders and the public to hold ship owners to account” and thus legally liable.

3 Literature review.

The majority of the relevant literature on registry competitiveness is limited in the characteristics of open registries and the corresponding selection criteria. Literature review can be divided in two parts. The work of independent authors and the studies / researches published from various organizations, relevant to the maritime industry.

The obvious advantages that open registries offer to shipping companies have been mentioned and examined by many researchers. Metaxas was among the first researcher that in 1979 recognized that profit maximization has always been a principal motivation for shipping companies to select the FOC option (Metaxas, 1979). However, he also stated that there exist additional parameters, not always visible, that have also an important impact on the decision process. These parameters include the financial and political environment, the objectives of each shipping company and the markets that the vessels are employed.

The above statement was also repeated by Fisser who stated that the financial is not always the principal reason that ship owners abandon traditional registries and select FOCs. He supported his opinion by adding that if the financial parameters were similar in all registries, the advantage of open registries would not be cost related, but principally because they provide "commercial freedom".

Investigating the motivation behind the registry selection Bergantino and Marlow in 1998 identified the following five parameters as crucial, regarding the selection of registries. The ranking of the parameters is as follows (from less to high importance): Fiscal, crew costs, bureaucratic control, availability of skilled labor and cost for compliance.

Sletmo in 2001, highlighted the importance and necessity of a national shipping policy that will guarantee the registry competitiveness. Although shipping is a global industry, the formation of a national policy, is essential. Scope of such a policy is to be able to interfere and have an impact on the worldwide framework, in order to protect the country interests. His opinion was reinforced by Roe in 2014 that added the characteristic of globalism as necessary element in every shipping policy. Roe moved further, claiming that the global character of the shipping industry shall be taken in consideration when a national policy shall be planned. In this context, the so-called national policy shall have international elements in order to be able to adapt to the globalized environment in which vessels operate. He also added that one of the success factors of the open registries is that they are subject to a framework adaptable to the market conditions.

Karucola in 2019 identified that the open registries have contributed in providing the ship owners with useful solutions in order to employ their vessels, avoiding specific restrictions and limitations, some of them being obsolete and not representing modern conditions in shipping industry. Such an example is the safe manning certificate, which is obsolete in many cases for modern vessels. On the other hand, he states that the flags of convenience are responsible for a series of drawbacks, all of them having a negative impact in the shipping industry. He identifies them as safety deficiencies, environmental pollution concern, working environment condition and exploitation and maritime security concern. This has also been the negative side of the open registries. However, FOCs, adapting to the market needs as stated by Roe have significantly improved their performance, being (Marshall Island Registry) in the first position of the Paris MoU White list for 2020.

The next part from this chapter will present specific studies and researches from institutions.

One of the first studies published from European Committee goes back to 1979. The European Union was early alarmed from the emerge of other countries and nations that would be competitive regarding the provision of maritime services. The problems identified had also to do with maritime safety. (Economic and Social Committee of the European Communities, 1979)

The study had foreseen that this evolution would have a negative impact on the European maritime transport industry and indirectly on the seafarers and the environment. The study proposes that "urgent action must be taken" in order to prevent serious harm to the community and the community to retain its financial independence. This independence can be endangered from low cost competition and the emerge of other competitors and may result in potential monopolists. The study highlighted the importance of retaining of national merchant fleets that would guarantee financial independence for a maritime nation.

The study early enough identified that the emerge of flags of convenience will be a threat for the future competitiveness of European maritime countries. It also recognized that the evolution will not affect solely Europe but every maritime nation. It is really impressive that the danger from the FOCs was very early identified but in fact a suitable strategy was never adopted and implemented. The study however did not concentrate on the advantages of the FOCs and how the EU flags would remain competitive. It rather focused on the negative aspects, expecting that they would be enough in order to prevent the open registries from being more competitive in the future. Thus, the study focused on maritime safety issues and that the open registries would enable substandard vessels to trade without any restrictions. This policy directed the EU policy in the next years, directing a strict policy orientated to the environmental safety. This is the reason that many times EU directives impose even tighter requirements and obligations regarding safety on board and environmental safety. Eventually however, EU failed to assess

the other aspects that define a registry competitiveness and plan a corresponding policy.

It was therefore considered then, that the financial benefit provided by open registries could not overcome the safety issues and additional matters of social security and working conditions. The committee failed to propose and adopt a successful long-term policy that would render UE registries competitive. Focusing mainly on safety, the EU countries were guided solely to strengthen the regulatory framework regarding IMO and ILO conventions. This orientation would prove not only to be ineffective but also to provide the opposite result. The many times excessive EU safety framework, with so many additional safety requirements, was another deterring reason for a ship owner to register his vessel under an EU flag. Moreover, a common strategy was never adopted as each country had the freedom to apply its own measures.

But even when the right measures were proposed from EU countries, their implementation was not always feasible due to the complex common legislative regime within the EU. There also exist researchers that believe that a nation maritime policy cannot be regarded as a solely national issue as it is affected by external regulatory frameworks. A 2017 study published from Bank of Greece revealed this aspect that has also a negative impact on the Greek registry competitiveness. (Panayiotou and Thanopoulou, 2019)

The authors state that such an example is Greece within the EU legislative margin. The traditional maritime countries were forced to make the necessary modifications in order to preserve the competitiveness of their registries. Among the measures selected was the establishment of taxation similar to those of the Flags of Convenience. More specifically, although the regulatory framework regarding taxation in Greece remained the same, external intervention from EU had a negative impact. Greek governments, under pressure due to the financial and debt crisis, were forced to adopt specific measures imposed by EU. The amendments imposed, included the modification of the Greek shipping tax law arrangements. This evolution impaired the comparative advantage of the Greek flagged vessel in terms of taxation, especially as it took place during depressed freight markets.

There are not many studies however to deal solely with the Greek registry. There mainly exist interviews and ship owner proposals that make suggestions regarding the shortcomings that lead to flagging out and corresponding suggestions.

In 1999 a study was carried out to aim to reveal the cause of the loss of competitiveness of the Greek registry, focusing on assessing the manning cost aspect. It revealed that the dominant cost for the Greek flagged vessels is the manning cost. This observation was not unique for Greece. Analogous problems have been encountered from other maritime countries, earlier than Greece, fact attributed to their faster economic growth. (Voutsinos, 1999)

The research calculated for the data of that period that the rate of increase for the vessels selecting the national flag is much higher than a similar vessel with the same crew, selecting a flag of convenience. The difference in cost was due to the difference in salaries of Greek seafarers and the crew usually used by open registries. (Filipino). The result of the comparison showed that the Greek crew was for that period (1990s) 181% more expensive than the Filipinos. (Voutsinos, 1999)

Similar cost manning problems were encountered from all the major maritime countries with important financial status, among others Denmark, Japan and Sweden. Shipping companies from these countries were supporting the usage of their national seafarers have then adopted measures in order to make their vessels competitive in the market and on the same time to keep using principally national seafarers. Among the measures was the development of crewing reduction project, which was not however as successful as it was expected.

A more recent research from in 2020 became the first study that referred to factors responsible for the flagging out of the Greek registry. Deloitte in 2020 carried out an Impact Analysis of the Greek Shipping Industry. The analysis was mainly focused on the importance of the maritime sector for Greek economy. Its highlighted issues like growth index for Greek owned fleet and comparison with the rest of the world, the impact of Greek Shipping to the Greek economy & society and the consequences of the 2009 financial crisis. At the end of the study a rather small referral to Greek flag was made, but critical. The research initially identified the benefits for Greece and the Greek economy from preserving Greek-owned vessels under the Greek flag. (Deloitte, 2020). These include the following:

A matter of national prestige

- Offers strategic depth to the country
- Creates positions with high remuneration for Greek merchant marine officers
- Generates ongoing revenues from registry-related activities

The study next names the negative aspects of Greek registry that derived from a survey. These include

- Insufficient supply of Greek officers has a negative impact on salaries,
- Crew taxation regime motivates Greek officers to select a foreign flag
- Bureaucracy and less flexibility, compared to leading Registries.

As it is understood, two of the three factors refer to manning issues.

The study was somehow not given the attention it should, but it is the first study that “escapes ” from the usual but vague referral to “financial benefits” provided from open registries and focuses on a different issue. The seafarer and his remuneration, which in Greece is not considered efficient and has resulted in a lack of skilled seamen. If this evolution will be combined with the manning requirements imposed by the Greek registry, it becomes obvious

that the lack of seamen shall be considered the principal shortcoming of Greek maritime policy and is the issue that requires measures to be undertaken.

The research proposes that in order to inhibit flagging out from the Greek registry, it shall operate in a more flexible way. Moreover, the number of Greek officers shall increase to cover additional demand preserving in this way a competitive cost base for the Greek-flagged vessels. (Deloitte, 2020).

Regarding the regulatory framework, in 2017 Monitor Deloitte's published an analysis that among other issues identified the EU legal framework as responsible for the EU registries inability to compete registries outside Europe. EU does not possess the required eligibility to delegate member countries to develop their own independent maritime policy. Additionally, the common existing framework is rather inhibiting than favorable to any attempt of make significant modifications. The above suggest that any amendment of existing arrangements shall initiate from a body outside EU, like IMO. EU usually lags behind the formation of a legislative regime.

Whereas more of the existing studies identify the financial cost as the principal factor related to registration, they are limited related to registration cost and taxation, there are more financial parameters that are directly related to legislation and have a perhaps more significant impact in the budget of a shipping company. Since however the flagging out continues, there shall be something that is not covered. Motivated by this shortcoming, this thesis aims at examining the manning aspect of the shipping industry, which is identified as the core reason having an impact on Greek registry.

Furthermore, there do not exist studies to assess the national policies of traditional maritime nations. As it will be further explained, one reason may be the global character of shipping industry which calls for international rather than national strategies. Nevertheless, each country is a different case study. Considering the above, as well as the lack of recent studies that assess current conditions.

Reviewing the above, it is observed that there exists plenty of relevant literature regarding open registries, however it focuses on the known advantages that FOCs offer without proposing a suitable national strategy to improve the traditional registries competitiveness. Even therefore the reasons behind flagging out are known, there is observed an unjustified lack of measures to be undertaken from the interested countries. It is the aim of this study to investigate the reasons and propose corrective measures.

4. Selection criteria:

The previous two chapters presented the necessary knowledge background regarding registries and flags of convenience. This chapter will use the data from previous chapters in order to identify the selection criteria of shipping companies and ship-owners.

The criteria identified will be compared in next chapters with the maritime policy as shaped by EU and Greece in particular. This chapter will also prioritize the advantages offered by open registries as well as refer to any additional parameters that may have an impact on the selection decision.

4.1 An overview

As demonstrated in the literature review, the financial aspect is the principal motivation behind the selection of a flag of convenience. This is not actually absolutely correct. It depends on each time conditions of the shipping market and the phase of the shipping cycle. In a depression the financial factor is without doubt dominant. There exist however other reasons. The commercial freedom provided from a flexible administrative and legislative regime that allows to the ship owner to adapt with an optimal manner to the changing market conditions is also regarded as important parameter (Fisser, no date). These conditions are not only related to legislation and taxation, but address further issues such as manning and fiscal and administrative procedures. (Fisser, no date). Further elements that have an impact on the ship owner decision are the cost of compliance with the flag state regulations, the flag state investigation scheme (frequency of inspections, strict regulations) and flag reliability. There exist additional parameters that derive from the attitude of third parties towards the flag state. These third parties include the port state control regime, banks and other financial institutions, charterers and oil majors. A ship owner will balance all the above before deciding about the vessels' flag.

4.2 Flag selection related aspects (Bergantino and Marlow, 1998)

The decision regarding the registration and the flag selection derives generally from the company strategy, current market conditions and intended employment of the vessel. There are however common grounds, usually financial, commercial and sometimes political that affect the choice. The initial flag selection may include nations or countries that possess an actual connection, deriving either from nationality or from already existing financial and commercial relationships. Common objective of all ship-owners is to maximize their profit, minimize the cost and the taxation and avoid any non-favorable arrangement. (Vlachos, 2007) The main criteria can be discriminated in four categories: Financial, Political, Legislative and interest of

third parties.

4.2.1 Financial

This category includes all the parameters that have an impact, positive or negative on the company profitability and can be further discriminated into the following:

Taxation regime

The selection of registering their vessels in the traditional ship owning countries, where the majority of the ship owners come from, results in the acceptance of their taxation regime. The companies, therefore, are subject to taxation as all other companies in the country. The FOCs on the other hand, usually require an initial payment for the registration and an annual fee based on the vessel (s) tonnage. There is not taxation therefore regarding the revenues of the vessel employment, differentiation that without doubt favors the company profitability. A ship owner will balance the financial advantages and tax-free regime offered by open registries and decide. The current market conditions, characterized by extreme competition, volatile freight rates and imbalance between supply and demand make the taxation regime an important factor regarding the decision.

Manning cost

In the current market conditions, where the freight rates demonstrate a downward trend, crew wages are a significant cost in the overall expenses, aiming at cutting down all possible operational expenses, ship owners take into consideration the corresponding advantages offered by open registries. In many cases, the selection of a FOC was a one-way decision since by selecting a registry other than the national, the company could avoid specific manning and nationality requirements, condition that enabled the selection of a crew that resulted in a significantly lower cost. This choice had another positive impact for the companies. It exerts pressure on the seafarers' unions which finally limit their claims. The result was that the wage scales was led to lower levels than the seafarers expected, since the market place and the workforce offer became wider.

Registration cost

Financial factors include also the registration cost which may vary significantly from one country to another. Capital cost is also subject to the registration, since selecting specific registry may enable easier access to bank loan or the opposite. The initial registration costs for the first year in comparison to the following years differ from country to country, depending on the vessel size. By selecting a suitable registry, a ship owner may not be obligated to pay this cost.

4.2.2 Administrative Regulations

The term administrative is generally attributed to the lack of bureaucracy and how easy it is to complete the procedure. Direct communication with the registry is another positive element. The lack of limitations regarding the vessel characteristics (age, type, dimensions) may be necessary for a ship owner that possesses fleet of vessels with characteristics that would not be accepted in national registries. Additional plus is if the registry enables the dual (parallel) registration.

4.2.3 Manning regulations

FOCs enable generally the ship owner to select the nationality of the crews serving on board the company vessels registered on the specific country. There exists therefore the potential to avoid high seafarer remuneration. In the traditional ship owning countries, the seafarers require and get higher wages that increase significantly the total costs. By selecting a FOC the ship owner succeeds in selecting without restrictions the nationality of the crews.

4.2.4 Compliance to IMO regulations

Open registries generally do not have strict requirements regarding the compliance to major IMO regulations, especially with SOLAS and MARPOL. As it was mentioned earlier in this study, it is the duty of the flag state to examine through inspections that each registered vessel complies with the basic regulations regarding safety and prevention of pollution of the maritime environment. The FOC s however, acting more like agencies and less that public organizations, usually neglect, deliberately or not, this very important duty. As a result, substandard vessels may be provided the necessary seaworthiness certificates, something that would not happen in a traditional registry where the inspections are strict. This is explained due to the very complex legislative status of the companies that provide the registration services that may offer them less liability in comparison to a public service.

4.2.5 Fast procedure

The ease of the procedure that a vessel can be entered to a registry can be decisive factor in cases that time is the important parameter. The simplicity and fast realization of the registration procedure is therefore a plus for a registry. Additional related advantages are the provision of direct communication and non-existence of bureaucracy in all functions.

4.2.6 Company set up

One of the basic prerequisites for the registration is that the ship owning country has a sister company or another company in the country that the registration will take place. It is important that the setup of the shipping company or any other type of managing company to take place in a

respectively fast time frame with a low corresponding cost. To the above requirements it is important to add the existence of any annual fees for the company.

4.2.7 Legislation

An important factor related with the political requirements, has to do with the state policy regarding labor issues. These include a broad range of parameters, as manning requirements, levels of remuneration and labor conditions. A typical and recent example has to do with the presence or not of armed personnel on board merchant vessels as counter measure against piracy. This measure however was not foreseen for every country. The corresponding Greek legislation did not allow the presence of the use of Privately Contracted Armed Security Personnel (PCASP), on board its vessels. This parameter could be critical regarding the flag selection for a vessel employed in the high-risk areas. (Somalia, West Africa)

Other potential arrangements include the regulative and legislative framework that may impose limitations. Usual limitations refer to ship mortgage, nationality of shareholders and corporate funds. Further law related issues include the use or no of a second registry. It is a common practice for many ship owners to select the bare boat chartering option, which enables them to use an alternative flag and take advantage of its benefits. This evolution is not provided from all legislative frameworks.

4.2.8: Political

Trade limitations

A vessel optimal use requires the ability to trade without restrictions in every place of the world. There may exist however restrictions due to political reasons and state relationships. A typical example refers to vessels bearing flag of Israel that are not allowed to call on Arabic ports. A decision that may not consider this detail may deprive the vessel from this ability. There also exist discriminations against ships bearing specific flags, as a result of port state control inspections.

Political stability

The political stability and the state support are decisive factor that guarantee that the vessel will not encounter situations where trading will be impossible or dangerous. Specific political conditions and the threat of outbreak of hostilities needs also to be a decision parameter. There exists the possibility of the vessel to be requisitioned during hostilities, or her departure to be impeded in case of war. In such circumstance the protection provided to merchant fleet from the country warships needs also to be balanced. All the above elements derive from the political condition of the said flag state and its overall presence in the global political and diplomacy regime. A rigid political stability and reliability of the state authorities form an important factor to be

considered

4.2.9 Interest of third parties

Charterers

The final objective of any ship owner is to attract charterers that will prefer the said vessel from other alternatives. The attitude of a charterer or oil major towards specific flags is therefore important since the ultimate aim of the vessel is to be chartered. This parameter has direct relation with the flag state reliability and is normally expressed through the corresponding performance in the Port State control inspections.

Funding Institutes

The financial viability of every shipping company is based on a great extent of the structure of the capital expenses. There are examples of shipping companies, consisting of a large number of ships, with satisfying performance, that declared bankruptcy due to inability to service their debts. In such cases, especially in the contemporary market conditions that banks limit their funding, it is important the flag state to be able to support the shipping company and be the intermediate part that will guarantee in the funding institute. This element derives from the country policy and orientation towards the support of the shipping industry.

Port State control

The reliability of a flag state is defined arithmetically from the ships' performance in port state control inspections. Each year every world region MoU issue tables presenting the corresponding flag state performance. The list is of great importance because demonstrates indirectly the vessels that will be targeted and have increased possibilities of inspections. Every inspection can result in a number of deficiencies that can delay the vessel or even to a detention. The above provoke important direct damage to a shipping company (delay, claims for compensation from charterers) as well as indirect since it damages the company reputation. It is therefore a decisive factor.

4.2.10 Additional factors

Additional factors include the following:

The freedom and lack of restrictions in selecting the type of vessels, the allowable vessel capacity, since minimum standards define the registration and annual fees and limitations regarding the vessel age
Requirements regarding the ownership status (In Cyprus ownership of more than 50 % is required for the registration process)

Regarding the importance of each of the factors presented, there cannot exist an absolute or relative importance factor. There exist factors that always play a significant role, but each time selection has to do with the specific company objectives and the market conditions. One last but possible important factor is the attitude towards the country. There exist Greek ship owners that despite the obvious disadvantages, still support and select the Greek flag. It is a decision that cannot be explained using the above-mentioned criteria. It emerges from the feeling of " duty towards the country"

5. EU Strategy and its impact in the flag competitiveness

The phenomenon of flagging out does not concern only Greece. The EU as a total is experiencing decrease in its merchant fleet that is registered under EU flags. This observation indicates that elements of common EU legislation and corresponding framework may be responsible for the phenomenon. The aim is to examine to what extent European policy favors the global competitiveness of the EU registries or (as it will be shown) contributes towards flagging out outside Europe. There is a need for formulating a new policy for shipping, aligned with EU member states' needs. Since each country has different requirements, implementation eligibility is also necessary.

As it was mentioned in the literature review, a pure national policy cannot exist in a sector like the shipping industry, where the international character and the globalization are dominant characteristics. Especially in the EU, where a common legislative framework exists, each country possibility for independent actions are extremely limited. Every EU country is under the obligation to comply at a national level both with the corresponding IMO Conventions and with the various EU Directives that aim at defining a common policy. The aim is therefore to assess this common policy and whether it has a positive impact at European maritime nations.

5.1 EU Policy (EU, 2014), Monitor Deloitte (2017)

In 2004 the EU, aiming at providing a competitive advantage to European maritime industry developed and established specific fiscal and social measures. The Community Guidelines on State aid to maritime transport (2004/C 13/03), aimed at converting EU as an attractive location for shipping activities. The guidelines addressed several issues, including flag competitiveness. In 2004 however, flagging out was not the primary concern for EU shipping policy. Therefore, the guidelines were mainly concentrated on maintaining European cities as globally leading shipping centers and paying less attention to the flagging out issue. Furthermore, the Guidelines could not predict the 2009 financial crisis that had an impact in registry selection as well. In the same time, the shipping industry was characterized by the emergence of new global centers outside EU, such as in Singapore, Hong Kong and Dubai, evolution not welcome for EU policy planners.

5.2 Shortcomings

The first limitation of the Guidelines is the guidelines themselves. Although they form a good framework, the eligibility of European countries to adapt the framework to their needs is very limited. They lack flexibility, whereas administrations in international registries are normally much more eligible, adapting to market conditions.

Fiscal framework

The EU fiscal framework for shipping companies in EU, includes, besides revenues and taxation, labor-related costs, investments, training cost and requirements, flag state administration procedures. The above parameters although not always considered when referring to financial elements directly affect operating costs, income and returns on investment. Since the 1990s, they became increasingly important factors that influence business decisions.

Ease of doing business

EU pays attention on the minimization of administrative burdens and speed up of procedures in order to be competitive. However, there exist policy gaps resulting in the lack of ease of doing business for shipping companies involved in global shipping activities.

Access to finance

It is estimated that approximately 70 percent of the EU fleet are private companies dependent on commercial bank financing. The existing regulatory framework is already restrictive, and the Basel IV provisions are expected to limit even more this funding option. Non-EU shipping companies have more options for financing.

Safety

The implementation of IMO/ILO conventions is mainly the responsibility of flag states according to UNCLOS, but specific conventions are implemented through EU directives and regulations. The fact that there exists an increased pressure in EU regarding safety issues and environmental protection, has further negative impact to flag competitiveness. Due to this orientation, EU establishes stricter regional regulations than the ones deriving from IMO/ILO treaties. The implementation however of the above measures increases the operating costs for the flag states. It is highly advisable that the EU does not impose higher standards,

Legal framework for vessel exploitation

According to effective legislation, access to tax relief schemes of EU member states has as prerequisite the existence of a link with an EU flag as well as a corporate residence in one of the EU states. Such a requirement does not exist in open registries, damaging therefore the EU flag competitiveness.

Guidelines application

The scope of activities addressed by the guidelines is also limited. The maritime transport policy aims at addressing transport of passengers and goods at sea' (EU, 2014). This limited applicability leaves critical procedures of the shipping industry outside the regulatory framework. Further shipping activities that are included in a modern shipping cluster need to be included. These include logistics, intermodal transshipment and transportation and port

services. All the above are considered from a ship owner, because all are critical in the employment of the fleet and affect the final operating cost as well as the ease of executing with ease and efficiency all the necessary procedures.

5.3 National policy

Beside the above shortcomings, there exist further ones at a national level. The most important has to do with manning requirements. EU registers still maintain strict nationality requirements and crewing restrictions that result in higher economic and administrative burdens. Additionally, cross-member state digital solutions that would facilitate EU shipping companies to benefit specifically from being registered under an EU flag have not been established.

6. Greek policy and its impact in Greek flag competitiveness.

6.1 Historical background

The year 1953 is considered the inauguration of Greek registry in shipping with the establishment of the corresponding legislation, law of 2687/1953 addressing vessels over 1500GRT. This legislative framework resulted in the rapid expansion of the Greek registry and the increase of the Greek flagged fleet. The size criterion was later corrected with subsequent laws, 27/1975 and 1376/1983 including vessels greater than 3000 GRT. In 1981 the Greek flag retreated to almost half of its power, from 43 m GRT (1981) to 20 m (1989). The negative evolution is principally attributed to the establishment of the 1376/1983 law, imposing the requirement that “crew work length” will last maximum 7 1/2 months. (Goulielmos, 2018)

6.2 Greek and Greek owned fleet

Greek-owned ships represented almost 18 % percent of the world's merchant fleet (in deadweight tons) at the end of 2020, according to UNCTAD data. The Greek-owned fleet remains today (September 2021) the largest globally with 5,774 ships, 410 million dwt and 242.3 million GT according to the data provided by Clarkson's. The Greek-owned fleet in terms of GT constitutes 16.5% of the world fleet, increased by 13.6% in ten years. The additional market share gained by the Greek-owned fleet demonstrates that it grew faster than its competitors. Regarding DWT, the share of the Greek-owned fleet as part of the world rises to 18.9%. The value of the Greek-owned fleet amounts to \$141.7 billion, and reaches 11.8% of the value of the world fleet. The detailed data, including the number of vessels per category with the corresponding value, as well as the corresponding data in a global level are demonstrated in figure 14

Data as at start August 2021

Source: Clarksons Research

World Fleet

Vessel Type	Vessels	Total m dwt	Total m gt	Estimated Value \$bn
Bulkers	12.534	931,5	514,4	253,6
Containerships	5.520	288,2	258,5	247,2
Tankers	15.895	678,7	377,1	199,0
LPG	1.511	28,0	24,6	33,4
LNG	657	53,5	68,2	72,6
Other	65.071	188,0	224,8	390,9
Total	101.188	2167,8	1467,5	1196,8

Greek Fleet

Vessel Type	No. Vessel	Total m dwt	Total m gt	Estimated Value \$bn
Bulkers	2.479	203,8	110,4	51,2
Containerships	499	26,7	23,4	23,2
Tankers	1.566	163,4	88,3	40,4
LPG	144	3,4	2,9	4,5
LNG	122	10,9	13,4	18,8
Other	964	2,2	3,8	3,5
Total	5.774	410,3	242,3	141,7

Greek Share of World Fleet

Vessel Type	No. Vessel	Total m dwt	Total m gt	Estimated Value \$bn
Bulkers	19,8%	21,9%	21,5%	20,2%
Containerships	9,0%	9,3%	9,1%	9,4%
Tankers	9,9%	24,1%	23,4%	20,3%
LPG	9,5%	12,0%	11,9%	13,4%
LNG	18,6%	20,4%	19,6%	26,0%
Other	1,5%	1,2%	1,7%	0,9%
Total	5,7%	18,9%	16,5%	11,8%

Figure 14: Greek and Global Fleet 2021 - 2020

(Source: Clarkson)

Greek registry

The Greek registry occupies the seventh place in the world for 2020, with only 671 vessels from the total 4648 to have the Greek flag. This percentage consists of almost 845 of the total fleet and is further increased from the previous years.

The Greek-owned fleet uses the flags of a total of 45 countries, most of them flags of convenience that facilitate ship-owners to avoid non favorable taxation and to minimize wage costs by selecting cheaper seafarer workforce. The most important countries under which the ships are registered are Greece (29 percent), Panama (17 percent), Malta (16 percent), Cyprus (12 percent), Bahamas (7 percent) and Liberia (6 percent).

6.3 Registry Evolution

In 2010 the Greek-flagged ships contributed as 5% of the total merchant fleet globally, ranking first among all other traditional ship owning countries. The next fleet in terms of capacity was the Chinese national fleet demonstrating 3.5%. The Chinese registry however numbers more ships (2,024 ships) since focuses on vessels with less capacity than the ones preferred by Greek ship owners.

Greek flagged ships are larger in size, on average. It is also noteworthy that the majority of the ships having the Chinese flag are state owned enterprises,

demonstrating the significant support and the focus that China shows to the maritime sector. This creates without doubt questions about the extend and magnitude of the Greek registry if it had an analogous support.

In 2016, 77.92% of Greek-owned ships has selected open registries. Compared to 2010, an almost 9% increase is observed. Respectively in 2016, the ship owners selecting the Greek registry number 22.08% with again a 9% decrease to be observed compared to 2010.

Regarding the registry competitiveness, the data comparison from consecutive years, leads to the observation that the increase of the Greek owned fleet in does not coincides with an analogous increase in the Greek registered fleet. Although disappointing, this evolution is common for all traditional ship owning countries.

This evolution is recent and has taken place in the 2010s, coinciding with the financial crisis. Before the crisis and despite the global dominance in flags of convenience and open registries in general, Greek maritime sector was the unique traditional maritime power that managed to preserve its position consistently at the top of the shipping world ranking, and at the same time has succeeded in strengthening its position (Theotokas and Harlaftis 2009). The situation and conditions however were altered after the financial crisis and the need for cutting down on every type of expenses, pushed ship-owners towards open registries. (Konsta, 2017)

The above demonstrate that despite the fact that considering deadweight and not number of ships, the Greek fleet increases, the phenomenon of flagging out continues to exist. Greek ship-owners appear to prefer open registries with increasing frequency and the Greek registry is constantly reduced.

1982 was the year that the flagging out phenomenon became intense. The reasons were mainly financial and attributed to the ship-owner effort to minimizing the vessel operating expenses. This year was also characterized by a drop-in freight rates that also orientated the shipping industry towards cheaper options.

It is therefore necessary Greece to adopt an approach towards maritime industry that will enhance the competitiveness of the Greek flag. The research will next assess the characteristics of the Greek registry and highlight specific negative aspects that are related with flagging out

6.4 Greek shipping policy

Greece's shipping register competitiveness could be improved if the Greek government had adopted a clearly positive approach towards the maritime sector, which is long requested by the Union of Greek Ship-owners and the London-based Hellenic Committee for Maritime Cooperation. Such an approach would certainly motivate more ship-owners, not only Greek, to trust their ships under the Greek flag. «If the competitiveness of the Greek shipping register is enhanced, the number of ships under the Greek club will increase,

evolution that will fight unemployment as well in Greece. Such a practice would serve the country's interests and support Greek economy.

However, the Merchant Marine Ministry, although recognizing the necessity for changes in the maritime sector legislative and regulatory regime until recently has not established measures that would contribute towards this direction. (safety4sea.com, 2021)

A positive evolution has nevertheless emerged. Greece minister of Maritime affairs and insular policy has recently expressed his belief that shipping sector is the country's most outward looking productive procedure and a major alteration that will support this sector is necessary. The future measures, among others, aim at establishing a new flag gain policy. During the summer of 2020, the government introduced a new legislation. (Greece investor guide, 2021) The new measures contribute to liberalization of the work and wage legislative regime previously effective on-Board vessels flying the Greek flag and entitle shipping companies to employ lower-ranked crew on international labor union contracts, leaving owners to choose between International Transport Workers' Federation terms or International Bargaining Forum agreements. The two-fold intent of the new measures was to restore the lost competitiveness of the Greek flag, which now accounts for no more than one-fifth of the Greek-owned fleet, but also to give young Greeks employment opportunities. With this evolution it is now possible to employ Greek seafarers on vessels flying the Greek flag based on the contemporary international employment regime developed by International Transport Worker's Federation (ITF). The result of this modification is that Greek registry will be competitive regarding remuneration costs with other registries. It is also important that this government decision and realization of a long request of the Greek ship owning community demonstrates the state will to drive the shipping sector forward.

Another positive step towards the improvement of the competitiveness of the Greek registry is the minimization of bureaucracy and administrative procedures. This will be achieved by the establishment of digitization in all registration related procedures. As the minister said, it is important to create a competitive flag by considering the positive elements of other registries. The registration procedure will be simplified and accelerated, whereas the service level will be upgraded. The whole procedure consists of four steps that can be realized by web services (e- registry). The aim is to create a user-friendly approach that adapts to international standards and avoid delays in all stages of the procedure. (Greece Investor Guide, 2021)

An additional improvement refers to the decrease of the vessel operating expenses. Currently ships flying the Greek flag are subject to strict manning requirements, such as the obligation the crew to include at least five officers. In contrast, competitive registries as Marshall Islands and Liberia do not impose analogous obligations.

The hope for 2021 is that the Greek flag will be competitive once more with other European flags.

Vessel Age

There are no age restrictions for a vessel to be registered in to the Greek registry.

Parallel registration

There exists no legal framework to foresee and establish parallel or dual registration

Ownership

A ship must be beneficially owned by Greek or other EU nationals to be registered in a Greek ship registry (i.e., to sail under the Greek flag).

Taxation

Individual and corporate ship owners in Greece are free from paying income tax on earnings earned from operating Greek and international flags registered vessels. Shareholders of Greek or foreign ship owning businesses are not subject to Greek taxation on dividends or capital gains made as a result of their ownership. All taxes, duties, and contributions are exempt for Greek offices or branches of foreign legal entities (irrespective of their type) that are exclusively engaged in the management, exploitation, chartering, insurance, and brokerage of Greek or foreign vessels exceeding 500 GRT or in the representation of foreign ship-owning companies (the so-called "Law 89/67 Offices").

Tonnage tax model

The gross tonnage tax works on the principle of taxing shipping earnings based on the taxable gross tonnage of the vessels by applying the following rates to the vessel's actual tonnage:

Actual Gross registered Tonnage	Taxable Gross registered Tonnage
100-10,000	1.2
10,001-20,000	1.1
20,001-40,000	1
40,001-80,000	0.9
80,001 and more	0.8

Source: (Deloitte.com 2020)

Lastly, it is important to highlight a factor, not included in various analysis and prediction models. It can be described as morale factor, since refers to the actual support of the ship owners for Greece. Flagging out is not a choice but a forced selection for them. Compared with other registries from countries financially and politically more powerful from Greece, like Japan and Germany, we observe that the flagging out is more intense. It is not therefore only the national policy but also the idiosyncrasy and character of the ship owner. The Greek ship owner, without doubt wants to make profit, but he also

loves his country and following the long Greek nautical tradition, wants to support his country.

6.5 Shortcomings of Greek Registry

Greek owned merchant fleet ranks first globally, however employs just twenty thousand Greek seafarers. This observation, made recently (27 November 2021) by Mr. Panagiotis Tsakos, one of the prominent Greek ship-owners, that actually support Greek flag is indicative of the principal shortcoming of the Greek registry. (Newmoney.gr, 2021) Additionally, the continuous flagging out can be attributed to an additional number of reasons, mainly political and financial, not always however solely related to Greece. The above parameters will be examined in the chapter of the research.

Greek tonnage tax model

As mentioned previously financial elements are between the factors considered in the registration decision. Taxation is possibly the principal financial parameter to be assessed, especially since great variations are observed between different countries. Taxation is shall define the cost competitiveness of each company. Due to the international character of the shipping industry and the gradual converge of the national systems, differences in taxation regimes are still observed worldwide. By selecting an appropriate taxation system, a shipping company can achieve significant savings and upgrade its financial position.

Greece became the first maritime country to establish a taxation system in shipping in the 1970s. its main advantage was the stability. The tax is defined as follows: It is the product of the total tonnage of the ship with the tax per ton, considering potential savings due to the age of the vessel. Analogous system is foreseen in Malta, Cyprus and the open registries. The tax quantity was accurately defined, was not subject to any kind of variations, condition welcome by both ship owners and Greek authorities. Additionally, it enabled the comparison between various regimes, demonstrating in this way any advantage / disadvantage the said regime provided compared to other and especially those provided by open registries. Although it was then considered as favorable to shipping companies, it somehow failed to keep up with evolution and to adapt to the dynamic character of shipping industry. (Konsta, 2017)

In contrast, there exists the Dutch model, used in Germany, England, and other countries. The tax calculation is based on the daily profit per capacity

The taxes attributed to shipping companies registering their vessels in Greece have since then increased by almost ten times (Panayiotou and Thanopoulou, 2017) although the legislative framework has not been significantly modified. This negative evolution is not however attributable solely to Greek policy. Based on the financial crisis impact, the EU imposed Greece the obligation to modify specific arrangements of the existing tax law for shipping (27/1975). This resulted in the significant increase of the tax imposition base and consequently higher taxation, despite the fact that the

Greek taxation regime was not altered. The impact to the shipping companies was that they had to pay

The above change obviously degraded the competitive advantage of the Greek registry regarding taxation. Comparing the Greek regime, with the corresponding taxation systems of the major open registries (Panama, Liberia, Marshall Islands) the following observations can be made

Administrative

Although measures have developed towards digitization have been developed, the Greek registry possesses one common feature of all Greek public services. Excessive bureaucracy that many times consists a deterring factor for a ship owner, especially if time is a crucial factor. This can be the case that the charterer depends on the vessel availability in order to confirm an agreement.

The new law 4111/2013 imposed a one-time annual contribution on offices and branches of foreign shipping enterprises established in Greece pursuant to article 25 of Law 27/1975 and engaged in the chartering, insurance, and/or brokerage of vessels flying Greek or foreign flags with a gross tonnage exceeding 500 shipping tons.

Temporary or parallel registry

However, an important disadvantage is that parallel registry is not foreseen for the vessels with Greek flag. Although the temporary registry is foreseen, parallel-in and parallel-out registration cannot be effective. Therefore, a vessel with Greek flag cannot be chartered as a bareboat charter. Since this type of charter is very popular and enable the ship owner to circumvent limitations and regulations that would otherwise prevent him from employing the vessel, it is understood that this choice for the Greek registry is rather deterring for potential entries. This is important, considering that other important registries such as Liberia offer this possibility, have therefore a competitive advantage versus Greek registry.

Ownership status

Another restriction is that Greek law requires that ship management shall be exercised from Greece. Consequently, for registering a vessel, the corresponding shipping company shall be in Greece. A ship must be beneficially owned by Greek or other EU nationals to be registered in a Greek ship registry (i.e., to sail under the Greek flag). A variety of documents are necessary for a ship's registration in a Greek registry. The company set up, additionally requires the payment of an annual fee of 650 euros. This cost is a significant drawback.

Greek ship owners tend to prefer to register their ships in other flags, since the Greek registry is characterized by significant disadvantages, which are not deterring factors in registering new vessels. . A study realized by Ernst & Young, the regulatory framework and the taxation system are considered as

the biggest obstacles, with 69% and 62% respectively, whereas social security and wages contribute 24%.

In contrast, positive is considered the compliance with IMO regulations as from the Paris Memorandum of Understanding – MoU).

Manning requirements

The above-mentioned factors, although affecting negatively the Greek registry competitiveness, they do not form the principal shortcoming. The main issues that deters Greek ship owners from selecting the Greek flag is related to vessels manning. However, it does not refer solely to manning and nationality requirements. The principal finding has to do with the lack of seafarers to service on board Greek vessels. Additionally, there exist limitations regarding the crew nationality on board Greek vessels.

According to international laws every country is free to set its own terms for granting nationality to a merchant vessel. For Greek registry, manning requirements depend on the vessel capacity, type and characteristics. The existing Greek legislation foresees that the Greek seafarers shall have a percentage no less than 60% whereas the master of the Vessel will have the Greek nationality. (Law 2687/53). Additionally, the officers of the vessel shall come from an EU country.

The above limitations need to be examined along with the lack of skilled Greek seafarers, a problem that actually is the most important threat to the Greek registry. One of the major problems that Greek shipping industry encounters is that the number of Greek seafarers constantly decreasing. The total Greek and foreign seafarers on board Greek flagged vessels was reduced at almost 5% whereas in Greek owned but with another flag a very significant rise was registered, 35%. In particular for Greek seafarers the numbers are more indicative of the problem. The number in Greek owned Greek flagged vessels has reduced at 2, 9 % and is increased at 43%. It is more that obvious that are deterring factors that deter Greek seafarers from serving on board Greek flagged vessels. (Naftemporiki, 2019)

The Greek shipping sector, according the statements of Mr. Panagiotis Tsakos, is in the need of human resources that can be covered from Greek seafarers, but with the condition that a favorable legislative framework will be established. The current conditions deter seafarers from selecting a service in a Greek flagged vessel. (Naftemporiki, 2019)

6.6 Comparison of Greek registry and principal FOCs

This part of the research will compare the Greek flag with the three dominant FOCs that consist an important part of the Greek fleet. The results will then be presented in the form of a table that will facilitate the comparison.

6.6.1 Panama Registry

Panama's open registry has a history of 104 years starting from 1917. It accepts vessels belonging to residence or foreigners subject to compliance with domestic and international standards on navigation, safety at sea, prevention of pollution, manning, certification, social standards, and taxation issues.

This request can be made by the owner or his agent through a suitable lawyer in Panama or a Private Consulate of Merchant Marine, or commercial Office of Panama, or any other agency that is approved by the Panama Maritime Authority. This is done by using the Electronic Public Key Infrastructure system

Bare boat charter

Ships subject to a bareboat charter contract that are registered in a foreign registry can register with the Merchant Marine without having to renounce the foreign registry, as long as the law of the country to which they belong permits it. Additionally, the temporary registration of contracts for vessels in the Panamanian Merchant Marine is possible for a half year period

Taxation

Panama's maritime service requires all vessel operations to be free from income tax and other form of taxes. In addition, profits from selling or transfer of a Panamanian vessel are tax-free. Under Law 25 introduced at 3 of June 2002, an extra rebate of up to 25% on the Annual Tax and 50% on the annual consular fee is for a 4-year period. In order to take this discount, a ship-owner need at least a four newly built vessel with a gross tonnage of 50 to 100 thousand tons, as well as the owners' agreement to keep the vessel in the Panamanian registry for 4 years.

Registration fees

2,000 GRT and less	\$500
2,000 to 5,000 GRT	\$2,000
5,001 to 15,000 GRT	\$3,000
More than 15,000 GRT	\$3,000 + 0.10 for any additional GRT over 15,000

Source: Panama Maritime Authority

6.6.2 Marshall Island Registry

Ownership

An RMI corporation, general or limited partnership (LP), limited liability company (LLC), or qualifying foreign maritime organization must own commercial ships and yachts registered in the RMI (FME).

Parallel registration

Dual/parallel registration is permitted in the Marshall Islands (according to the requirements of the other flag) if the vessel is under complete bareboat charter and authorization is given by the Chief of the Vessel Registration Division of the Register. The registration term for bareboat charters is two years, with the option to extend it subject to specific conditions.

Registration fees

Initial Registration Fee – Schedule A	
Initial Registration fee per vessel	2.500\$
Bareboat Charter registration Fee per vessel	2.500\$
Vessel Under Construction	2.500\$
Initial Registration Fee -Schedule B	
Vessels of 2.500 NT or less	2.500\$
Vessels from 2.501 to 15.000 NT	5.000\$
Vessels from 15.001 to 35.000 NT	10.000\$
Vessels from 35.001 to 50.000 NT	15.000\$
Vessels over 50.001 NT	20.000\$

Source: (Deloitte.com 2020)

Registries Comparison

The main differences are next presented in a table form. The table gives emphasis to qualitative characteristics.

	Greece	Marshall Islands	Panama
Taxation	Two Categories Varies based on registration date and vessel capacity tonnage tax Favorable	Tonnage Tax based on capacity Very Favorable	Tonnage Tax based on capacity Very Favorable
Manning restrictions Officers crew	A specific number of Greek officers and crew is required	No nationality restrictions	No nationality restrictions
Bareboat charter	No	Yes	Yes
Vessel age	No limitations	Few Limitations	Few Limitations
Registration fees	Variable	Variable	Variable
Administrative procedures	Not fast enough	Very fast	Very fast
Ownership status	by Greek or other EU nationals	Eligible status	Eligible status
PSC performance	White list	White list	Grey List
Parallel registry	No	yes	yes
Moral reasons	Yes	-	-

From the comparison of the characteristics of the Greek flag with two of the principal FOCs it is understood that the manning issue is today the principal factor that reduces the competitiveness of the Greek registry. Manning refers not only to nationality limitations but mainly to the lack of skilled seafarers to serve on board Greek vessels. It includes the requirements that need to be met from all vessels selecting the Greek flag. However, it is also related to the number of the Greek seafarers, both officers and crew, that are available for service on board Greek flagged vessels.

The findings are indicative. Despite the fact that many Greek ship owners actually want to have their vessels registered in Greece, they cannot comply with the manning requirements, not due to their preference on non-Greek seafarers. The reason is the lack of personnel ready for service.

The taxation advantages that the open registries are providing are no longer a competitive advantage, since Greece has modified its taxation regime regarding shipping. There no longer exist differences in a ship taxation, according to her flag.

Considering the above and also the opinions stated from Greek ship-owners, as they have been many times expressed in public. The main problem refers to the lack of Greek officers and crew. This deficiency, combined with the existing manning requirements, renders impossible for many ship owners to select the Greek flag. Although it is a paradox, it is the reality. If a ship-owner actually wants to select the Greek flag, he needs to comply with the manning requirements that demand a specific number of Greek officers. Due to the lack, it is impossible to find a suitable crew and it is therefore impossible to comply. He has therefore no other selection than choose another registry.

The last two years were crucial for correcting existing legislative aspects of the registration procedure. Greek registry however still lags behind open registries, mainly regarding administrative procedures.

The nautical education therefore is crucial and needs to be upgraded and in order to be more productive regarding the number of graduates, being thus able to cover the need for officers. Private education is expected to contribute positively in this aspect.

6.7 Recent Amendments to Greek Maritime Policy

The main steps towards the solution of the manning problem is the recent legislative modification. In 2020 law 4714 was introduced, which establishes that the global Collective Agreements will be effective on board Greek flagged vessels as well. These have an impact on the service of lower crew that foresees that Greek flagged vessels can employ Greek seafarers as crew that will be paid not according to the Greek but the international salary

agreements approved by ITF (International Transport Workers Federation (ITF) and other international organizations.

The same legislative amendment foresees that the nautical high school graduates can have a better evolution during their service

The new law contributes in the reduction of the ship operational expenses, converting therefore the Greek registry to be as competitive other registries.
(New money, 2020)

7. Findings

Ship-owners and managers in the global marine transportation sector require a well-established and efficient administration regime that provides a registration procedure that is compatible with the operation of their boats, is dedicated to the safety and security of its vessels and personnel, as well as the preservation of the maritime environment, and is competent and ready to act promptly and quickly.

Common objective of all ship owners is to avoid any type of regulatory modifications in order to maximize their profit, minimize their expenses as well as the taxation scale they are subject to.

Owners have the option either to register their ships in national registers, normally managed by official state administrations, or in flags of convenience that usually privately operated as commercial firms. The open registries however concentrate to services providing, giving to their flag therefore advantages. The emerge of open registries took place due to the need of ship owners to minimize operational expenses and circumvent specific legislative burden, condition that could not be realized if the vessels remained in the national registries. More specifically, the decision to change registry derived from the need of reducing operational costs through lower registration costs, the recruitment of foreign workforce, decreased, at times lower compliance with environmental and safety regulations

As a result, the number of owners that select to register their ships in another country constantly increases, as demonstrated from all available data.

The decision therefore for the flag that each vessel is going to fly need to consider a vast variety of parameters. The cost is without doubt the dominant factor, but all related aspects of the vessel employment that are related to the registry selection need to be assessed. The research has in depth examined the criteria used by ship-owners to come up with the following objectives that the registry selection aims at satisfying:

- Reduction of operational cost
- Improvement of operational condition
- Optimal adoption to market condition
- Achieve the optimal compliance to government policy

The dynamic character of the shipping industry forces the vessels to have eligibility to adapt to the changing conditions. A ship is therefore entitled to change registry during her operational lifetime.

The basic criteria that define the registry selection can be discriminated into the following categories:

- Cost

- Compliance to safety standards
- Legislative framework
- Port state control
- Manning requirements
- Trade limitations
- Insurance and financing

The majority of open registries is provided by countries that do not have maritime tradition or significant involvement in maritime trade.

The limitations imposed by EU affect negatively the national registries. In the previous chapter it was explained that specific legislative modifications imposed to Greece resulted in that the Greek registry became more expensive and lost its competitive advantage, which was created by the independent Greek laws. The limitations include taxation and other fiscal incentives, regulatory, financial and political factors, availability of professional services ease of doing business, availability of finance but mainly the non-efficiency of the existing legal framework for vessel exploitation.

This research has identified important policy gaps that degrade European Flag competitiveness and promote flagging to outside the EU. These are, among others, caused by EU legislation for international shipping, not addressing modern conditions and lagging behind competitive registries. The legal framework imposes additional administrative and technical requirements, which further degrade the registry. Furthermore, some EU registers still have specific nationality requirements and crewing restrictions that also lead to increased economic and administrative burdens. Furthermore, there is a lack of cross-member state digital solutions that would facilitate EU shipping companies to take advantage from EU flags. Such easy to implement solutions will certainly upgrade the efficiency of EU flags and decrease total cost on to owners of EU-flagged vessels.

EU shall additionally not exceed IMO/ILO conventions since it results in additional cost for its implementation for flag states. Effective legislation needs to be reviewed to minimize non-essential regulations that increase bureaucracy. When EU establishes higher safety or environmental standards, the financial impact in the companies needs to be assessed and corrective supportive measures to be undertaken, when necessary

Greece lost market share, by 5.7% to 38m GT, according to Lloyd's List Intelligence data as of end-October 2020. This negative evolution calls for a new initiative by the government should provide it with a chance for a recovery. Strengthening the Greek flag and creating an effective fleet will be the aim of the country shipping policy. (Greece investor guide, 2019)

A shipping policy in a national level can be described as the government interference in the shipping sector (Konsta, 2017) Although the shipping sector forms an international and global framework, which limits a country's potential to establish and promote a national policy, a national

policy can still, to some extent, have an impact and favor the country interests. (Sletmo 2001, Goulielmos 2006).

Although Greece has recently established specific measures to strengthen its flag competitiveness. However, constrained by the EU policy, Greece has limited freedom to establish an independent policy. The measures required shall initiate from a radical upgrade in the EU policy that will then be adopted by all interested EU members.

Regarding the Greek registry, the main shortcoming is located in the increased manning cost, coupled with the lack of Greek seafarers which forces Greek ship-owners to use alternative flags.

8. Recommendations

Due to the non-satisfying level of competitiveness of the EU flags, Europe needs to make modifications in the effective policy. There is a need for formulating a new policy for shipping, aligned with EU member states needs that reflect the contemporary market conditions and modern shipping character. The changes / upgrades proposed are the following:

- Adaptation of strategies to ensure that the regulations imposed regarding safety and environmental protection do not go beyond the international standards, since in this way further restrict operations through additional cost.
- Minimization of the current flag link requirements, responsible for additional administrative procedures that deter ship owners from selecting an EU registry
- Development of remote digitalization
- Reduction in crewing and nationality restrictions

The above proposals are the necessary general aspects of the guidelines that need to be modified. Since however the said directive refers to every EU member is also vital for countries to have the authority to adapt the guidelines to their needs.

Regarding the Greek registry, the main shortcoming is located in the increased manning cost, coupled with the lack of Greek seafarers. It is however impossible to match the very low salaries of Asia seafarers. One possible solution can be the gradual replacement of the fleet with modern vessels that have a lower crew size. The only problem lies with the lack of a regulatory framework. Now it is the chance for Greece to promote such an initiative, regarding the issue of the Safe Manning Certificate since has recently been voted for chairman country in IMO A council. It is certain that will have the support from all traditional countries in promoting such an amendment. This evolution can result in reduction of manning cost whereas tackles the officer deficiency.

The following factors need to be considered regarding the officer provision from the existing Greek regime, that includes not only the education but also the evolution of a merchant marine officer.

- Enrollment in a merchant maritime academy
- Duration of studies
- Leakage of officer during the studies
- Leakage during the career
- Required sea service for promotion
- Minimum required sea service for pension

9. Conclusions

The importance and the impact of the vessel flag selection have converted the registration process from a simple legal requirement to a multidimensional commercial decision. This change derives from the universal and international character of the shipping industry and mainly from the lack of global provisions that impose binding requirements to the ship owner to prove the genuine link between the flag country and the vessel.

The significant percentage of vessels bearing a flag different from the nationality of their owners demonstrates the importance of the flag of convenience regime for the shipping industry and consequently for the world economy. This evolution has a negative impact in the traditions ship owning countries that experience a reduction of their national fleet, decreased tax revenues and possibly unemployment issues in the maritime industry

The number of owners that select to register their ships in countries outside EU constantly increases, as demonstrated from all available data. This observation calls for the assessment of the EU and national policies towards flag competitiveness, forming the research problem of this study.

This part of the research will next review the defined research question and sub questions, aiming at providing an as complete as possible answer in order to address the research problem identified, related to the flagging out phenomenon. After reviewing the existing literature review and compiling all available data the research has led to the following conclusions:

In what extend is the Greek maritime policy affecting the ship owner flag choice.

Although the shipping sector forms an international and global framework, which limits a country's potential to establish and promote an independent policy, a national policy can still, to some extent, have an impact and favor the country interests. Despite its international character, shipping continues to depend strongly on the flag state regime. This regime defines crucial aspects related to the fleet operation and profitability, such as manning requirements, taxation and compliance to IMO regulations which is expressed by the flag state performance indicator in the port state control.

The research has indicated that the state strategy and related laws play an important role, since shape the legislative and administrative regime, which consequently define the flag competitiveness.

The Greek case study examination revealed the crucial role of the government and the state policy in general. The role of Government in shipping matters is important, as it is important for shipping to have a friendly institutional and legal framework. Greek state specifically, is responsible for many characteristics of the Greek registry. As Greek policy gave an important impetus in Greek shipping sector in the 1950s the following decades a decrease in the Greek registry was observed. Examining the related factors, the Greek maritime policy is the principal reason, since failed to adapt the characteristics of the Greek registry to the dynamic and fast changing character of the registry procedure. As a result of the non-efficient Greek maritime policy, the modern Greek registry lags behind open registries in various aspects. The research has indicated that the state strategy and related laws play an important role, since shape the legislative and administrative regime, which consequently define the flag competitiveness. The impact therefore of the Greek maritime policy is principal in the Greek owner flag selection.

Aiming at correcting the mistakes made in the previous years and making the Greek flag again competitive, Greek government has recently established measures that were considered favorable from Greek ship owners. Greece however as every other EU country, reflects the effective EU strategy which affects national policy. The EU as a total is losing ground on the share of the world merchant fleet that is registered under EU flags. This observation indicates that elements of common EU legislation and corresponding framework may be responsible for the phenomenon. Although each country, like Greece, independently select the measures that are believed to support the competitiveness of their registries, there exist limitations imposed by the common European legislation

This research has identified the crucial aspect of the Greek national shipping policy that has a negative impact in the registration selection. However, reference will be made to the EU shipping policy as well, since it is the wider frame that defines the member states national policies.

What are the characteristics, advantages and disadvantages of the flags of convenience and the criteria that motivate ship owners regarding the selection of the suitably registry for their fleets?

The open registries aim at providing a number of advantages to the companies. The most important include eligibility in legislative framework, avoidance of political instability and any type of restrictions and financial benefits. The ship companies by selecting open registries can avoid national regulations regarding manning requirements, employment and labor conditions, as well as wage scale.

Although the financial aspect is considered the dominant factor regarding the registration decision, this research has proven that is actually a combination of reason that have an impact on the ship owner decision. A shipping company decision to select registry for its fleet assesses financial, political, legislative and administrative factors, with the existing conditions to define each time the decisive factor. The recent financial crisis of 2009 has contributed towards financial elements priority. This is proved by the success of the Panama flag despite the fact that it demonstrates a poor performance in port state control lists.

What is the role of the EU Maritime Policy in the competitiveness of EU countries' registries?

EU has not established a competitive framework for shipping activities with specific elements to be far from competitive compared to other registries. The registry characteristics in particular need to be revised and adapt to the contemporary conditions. There are a number of important gaps in the registry regime where the EU has established less attractive policies. Policy changes need to be considered for EU is to prevent flagging out and establish again competitive registries.

The EU should, restrain from implementing standards that go beyond international ones since require additional financing from the industry itself and impose additional administrative burdens.

The mentioned shortcomings derive from the corresponding legislative framework as expressed by the 2014 guidelines, in particular, that need to be updated and provide solutions instead of create shortcomings. Greece has recently been elected in the first place of the IMO A Council (receiving 150 from 157 votes). It may be the time for modifications in the regulatory scheme, promoted and proposed by Greece.

Which are the shortcomings of Greek policy regarding the competitiveness of the registry?

The principal factor that poses a threat for the competitiveness of the Greek registry is the manning issues. Manning refers not only to nationality limitations, but actually to the deficiency of skilled Greek seafarers, willing to serve on board Greek Flagged Vessels. Positive steps have been made towards this direction and especially regarding the remuneration issues. However, the nautical education shall be the next milestone. Campaign aiming at attracting young Greeks to this professional sector as well as upgrade of the education system, both qualitative and quantitative is essential. Recently established private maritime academies are expected to contribute positively towards this direction. An amendment to minimum safe manning regulations, resulting in lower crew size in modern vessels can also be favorable and tackle the deficiency of Greek officers.

Regarding the rest registry characteristics, Greece still lags behind FOC s regarding administrative procedures and digitalization. This aspect however, along with taxation are not considered as crucial. It is also very

important to point out the morale factor, thus the actual desire of Greek ship-owners to support their country and to flag out only when they are forced to do so.

Related with the above, is the need for establishing a new status for the Greek maritime officer. It is vital to examine and improve the cost/ benefit relationship regarding the employment of Greek officers on board Greek flagged ships. The Greek seafarer as every professional, needs to convince his employer that he deserves his salary. This relationship has been altered the last years, with ship owners looking for cheaper options, that gradually replace Greek officers and the manning cost is reduced. The Greek officer needs to be convincing regarding his skills and professional performance, a status that can derive from a corresponding quality education.

Which improvements can be made in the Greek maritime policy to increase the registry competitiveness?

Although Greece has recently established specific measures to strengthen its flag competitiveness, still lags behind open registries regarding manning issues and easy in doing business.

Positive steps have been made towards manning and especially regarding the remuneration issues of the seafarers serving onboard Greek vessels. There are stills further measures required. The development of a campaign that will attract young men back to the shipping sector and the service on board vessels, the increase of persons introduced in public merchant maritime academies can provide a future solution for the lack of officers. The gradual replacement of vessels with modern ones that have fewer manning requirements can also serve this objective. Finally, the manning requirement issue shall be reviewed in order for Greek registry to be competitive, without however to lose its national character.

Considering the above and the research objective, it is concluded that the Greek Maritime policy shall be upgraded within the EU framework in order to provide actual support to Greek registry. Tackling the manning issue shall be the principal orientation.

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