NATO Member States' National Merchant Fleet and Seafarers

IMPLICATIONS FOR MARITIME SECURITY AND RESILIENCE

International Organization of Masters, Mates & Pilots

NAUTILUS INTERNATIONAL

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NATO Member States' National Merchant Fleet and Seafarers:

Current State and Implications for Maritime Security and Resilience

Abstract

The report aims to characterise the current state of NATO-owned and registered merchant fleets and seafarers, analyse its implications for maritime security and resilience, and provide recommendations. Using a combination of different theoretical frameworks and approaches, key findings reveal a decline in national qualified seafarers and national-flagged merchant vessels among NATO members, posing a threat to national security by undermining strategic military logistics and supply chain reliability during crises, conflicts or emergencies.

The widespread use of flags of convenience by shipowners weakens flag-state responsibilities, enabling maritime crimes and diluting regulatory authority. With the exception of the USA for reasons explained herein, maritime incentives and subsidies, intended to support national flags and seafarer employment and training, have had limited impact, being mostly reactive to global competition.

The proliferation of foreign-flagged ships and flags of convenience has eroded the strength of national registers and increased reliance on foreign crews. The report calls for NATO members to strategically invest in maritime capabilities, strengthen national merchant fleets, and curtail incentives for using flags of convenience to enhance maritime security and resilience.

Keywords:
Maritime Security, Resilience, Seafarers, Genuine Link, Flags Of Convenience, Sustainability, Oceans

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Abbreviations

EMSA	European Maritime Safety Agency
EU	European Union
DWT	Deadweight tonnage
FOC	Flag of convenience
GT	Gross Tonnage
MCA	Maritime and Coastguard Agency (UK)
NATO	North Atlantic Treaty Organization
NIS	Norwegian International Ship Register
NOR	Norwegian Ordinary Ship Register
NSC	NATO Shipping Centre
UKSR	United Kingdom Ship Register
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	UN Trade and Development
WMD	Weapons of Mass Destruction

1. Prologue

At the time of writing in early 2025, the global landscape remains shaped by the dynamics of volatility, uncertainty, complexity, and ambiguity particularly in the sphere of international security and defense. Within this context, the NATO Alliance confronts mounting challenges that test its resilience and adaptability. Member States face increasing pressure to raise defense expenditures beyond the current target of 2% of GDP. Calls to elevate this benchmark, with some proposing a rise to 5%, reflect heightened concerns over global security threats (Gray and Bayer, 2025). Geopolitical tensions, especially with Russia, have reaffirmed NATO's role as a critical defensive alliance. Yet, maintaining cohesion among members with diverse interests remains a persistent challenge (Birnbaum, 2025; Smyth *et al*., 2025).

To remain effective, NATO must also evolve to address emerging threats such as hybrid warfare, cyberattacks, and disinformation campaigns, which demand not just increased spending but strategic shifts in capabilities and operational readiness (NATO, 2021). An often overlooked but vital component of this strategy is NATO's maritime dimension.

With approximately 90% of global trade moving by sea, the merchant fleet and its seafarers play a pivotal role in sustaining NATO's supply chains and supporting Allied forces during crises. Strengthening this maritime backbone through bold investments in NATO merchant fleets and enhanced seafarer training and employment opportunities is essential to reinforcing the alliance's overall defense posture as well as its economic independence (Nautilus Federation, 2024).

While the challenges NATO faces are formidable, history has shown the alliance's capacity to adapt to evolving circumstances. The effectiveness of its response, however, will hinge on the collective commitment and decisive action of its member states in navigating the uncertainties of the global security environment.

2. Introduction

As NATO marked its 75th anniversary, unions representing merchant seafarers from NATO Member States' urged NATO to prioritize the merchant navy/ mercantile marine as a cornerstone of national resilience, security, and defence amidst rising global tensions. They highlighted the decline of qualified merchant seafarers and national-flagged vessels, exacerbated by reliance on "flags of convenience", which weaken military logistics and supply chain security during crises. The unions called on the governments of NATO member countries to commit to significant investments in maritime capabilities, to strengthen their merchant marines and to invest in their maritime professionals (Nautilus Federation, 2024).

> "Together, the undersigned unions advocate for a coalition of like-minded maritime nations to work together to increase the number of qualified merchant seafarers and national registered vessels, to end incentives for flags of convenience and to put a stop to the continued exploitation of foreign crews" (Nautilus Federation, 2024).

The merchant shipping community is the backbone of international trade and depends on freedom of navigation (UNCTAD, 2024a). Merchant fleets and their crews also play a vital role in national resilience, security and defence. In times of war or national emergency the military depends on support from the merchant navy/mercantile marine (Maritime Commission, 1949). Civilian merchant vessels are essential for military operations and logistics, and can be converted for support roles such as troop transport, hospital ships, and munitions carriers. Large container ships can for example be used as aircraft transporters and air defense platforms (Scrivener, 1983; Kennerley, 2020). Ro-Ro vessels' versatility also make them ideal for both military and humanitarian missions with minimal conversion needed (Kleberg, 2025).

Faced with an increasingly broad spectrum of maritime security threats, it is opportune to take stock of the current situation of NATO merchant fleets and NATO seafarers within the NATO Alliance and understand the implications for security and resilience.

2.1 Background and Problem: Current Challenges in Maritime Security and NATO's Role

2.1.1 The NATO Alliance: Maritime Security in Focus

According to its website[1], NATO (North Atlantic Treaty Organization) is an intergovernmental political and military alliance established in 1949 through the North Atlantic Treaty. Its primary purpose is to ensure the collective defence of its Member States and promote stability and security in the North Atlantic region.

Initially formed with 12 member countries, NATO has expanded over the years to a current total of 32 countries from Europe and North America. Most of the European Member States are part of the Alliance, in addition to the USA, Canada, the UK and Türkiye.

NATO operates on the principle of collective defence, outlined in Article 5 of the treaty. This means an attack on one member is considered an attack on all members. Article 3 of the treaty also obliges member states to "separately and jointly, by means of continuous and effective self-help and mutual aid, (...) maintain and develop their individual and collective capacity to resist armed attack".

NATO conducts military operations to address threats; promotes democratic values (also promoting the vital roles women play in peace and security) facilitates political and military cooperation among members and engages in crisis management and conflict prevention. Over time, NATO has evolved to address modern challenges such as environmental security and protection, cyber threats, terrorism, and hybrid warfare, in addition to traditional military threats.

NATO collaborates with non-member countries and international organizations to promote global security and stability.

The NATO Shipping Centre[2] (NSC) serves as the vital connection between NATO and the global merchant shipping community. The NSC acts as the central hub for exchanging information between NATO's military authorities and the international shipping sector. The NATO Shipping Centre operates under the Allied Maritime Command.

NATO's maritime strategy has evolved significantly since the Cold War, adapting to new geopolitical challenges and technological advancements. In recent years, this strategy has shifted from crisis management and anti-piracy operations to addressing broader security threats, including terrorism and the resurgence of Russian naval power (Gade and Hilde, 2016; Shukri, 2019; ISPI, 2024).

[1] www.nato.int/
[2] shipping.nato.int/nsc

2.1.2 **Emerging Threats:** Maritime Security and Resilience in a Changing World

Research suggests that resilience is typically understood as the ability to adapt, recover, and even thrive in the face of adversity. However, resilience is a multifaceted concept that varies across different areas of life, and this framework can be applied to understand the vulnerabilities of NATO countries' merchant fleets. In the context of maritime security, resilience refers to the capacity to recover from disruptions, such as the decline of national fleets and the shortage of seafarers. Furthermore, resilience is influenced by the support provided by relationships, resources, cultural contexts, and communities, each of which can play a different role in fostering resilience (Southwick *et al.*, 2014; Vella and Pai, 2019). In essence, resilience is complex, manifests differently in various aspects of life, and is shaped by the support systems available.

Bueger and Edmunds (2017) explain that the term "maritime security" was coined in the 1990s with the rise of maritime terrorism, piracy and human trafficking crimes for example and more recently has gained traction with the advent of the "blue economy" and maritime environmental protection challenges.

Threats and challenges in the maritime environment are complex and diffuse, impact sovereignty and can span from wars, terrorism, migration, piracy to degradation of marine ecosystems, foreign interference through so-called hybrid warfare and more, as illustrated in Figure 1.

The world's oceans increasingly serve as arenas for geopolitical and geoeconomic power struggles, complicating efforts to navigate the complex interconnections among numerous potential threats and challenges, define "maritime security" and enhance resilience in times of crises (Bueger, 2015).

As General Christopher G. Cavolli, United States Army, United States European Command stated (2024):

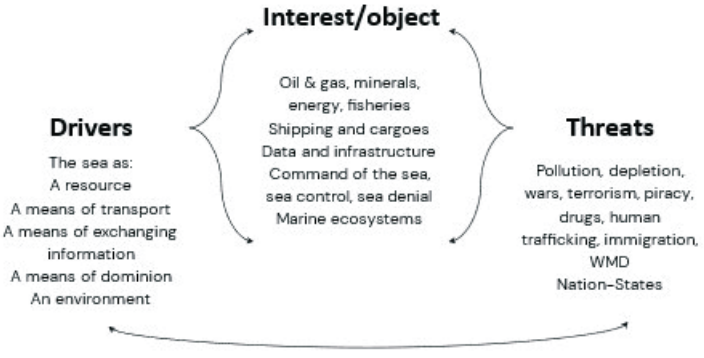

Figure 1 *Threats (non-exhaustive) to the use of the sea, adapted from Boyer (2007)*

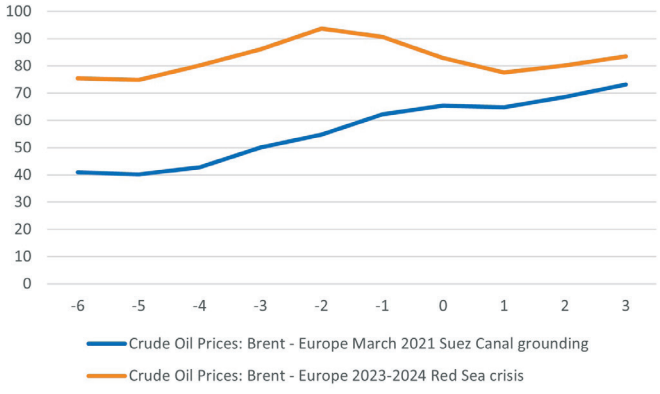

Figure 2 *Monthly crude oil prices (US$ per barrel) during the 2021 Suez Canal grounding and the 2023-2024 Red Sea crisis (adapted from WTO, 2024)*[3]

[3] Note: Month zero corresponds to March 2021 for the 2021 Suez Canal obstruction and to November 2023 for the first attack on commercial ships.
Source: WTO Secretariat elaboration based on US Energy Information Administration's data on crude oil prices (Brent – Europe) and International Monetary Fund's data on global price of natural gas (European Union).

> "In all, we see a Euro-Atlantic area that faces more threats and dynamic challenges than at any time in the past thirty years".

Disruptions that can occur at critical, geostrategic chokepoints for instance (e.g. Suez and Panama Canals, Strait of Malacca, Bab el-Mandeb, Turkish Straits, Strait of Gibraltar, Strait of Hormuz and Cape of Good Hope) highlight vulnerabilities in global trade routes (Pratson, 2023; UNCTAD, 2024a). Figure 2 shows how the resilience of global trade has been tested during the 2021 Suez Canal grounding and the 2023-2024 Red Sea crisis (WTO, 2024).

Despite some tanker rerouting, crude oil prices have stayed relatively stable after the Red Sea attacks, unlike during the March 2021 Suez Canal incident, even though the Brent crude reacted slightly more than the American West Texas Intermediate (WTO, 2024).

Strategic vulnerabilities have also been recently in focus in the news with the sabotage of undersea cables, carrying vast amounts of global data and transactions (Keating, 2024; Nette Nöstlinger, 2024; Sjölander *et al*., 2024). At the time of writing, Finland seized an ageing oil tanker, Eagle S, after suspecting it of severing undersea cables, including a vital power link between Finland and Estonia. The incident is being investigated as deliberate sabotage, potentially linked to Russia's "shadow fleet" or "dark fleet" (Lemola and Chutel, 2024; European Parliament, 2024; Fairbairn, 2025). The incident underscores rising tensions in the Baltic, with repeated sabotage threats highlighting vulnerabilities in European infrastructure (EEAS, 2024).

Deep-sea mining and seabed claims represent also new arenas for geopolitical competition (Brandon and Burton, 2024; Frankopan, 2024).

In 2011, NATO published a Maritime Strategy and in 2022 launched a Strategic Concept at the NATO Summit in Madrid where it stated that:

> "Maritime security is key to our peace and prosperity. We will strengthen our posture and situational awareness to deter and defend against all threats in the maritime domain, uphold freedom of navigation, secure maritime trade routes and protect our main lines of communications" (NATO, 2022).

While the 2022 Strategic Concept captures the current security landscape, identifying Russia as the principal authoritarian threat and acknowledging China's de facto alliance with the Kremlin and its reliance on coercive tactics, NATO now requires a modernized maritime strategy to stay ahead (Horrell, 2023; Vázquez, 2023).

2.1.3 **Commercial Shipping and Seafarers:** Pillars of Maritime Security

Seafarers and the shipping industry form the backbone of global trade, driving economic growth and ensuring the uninterrupted flow of goods and resources across continents (United Nations General Assembly, 2020)

The COVID-19 pandemic and the war in Ukraine have underscored the critical role of maritime trade in global security and economic power, with as much as 90% of worldwide trade being seaborne (UNCTAD, 2021; Feingold and Willige, 2024; UNCTAD 2024a).

These crises have exposed vulnerabilities, such as the challenges of crew changes and the disruption of global supply chains, which have highlighted the fragility of this essential system and have underscored the need for improved protection of seafarers (International Transport Workers Federation, 2020b; De Beukelaer, 2021).

When the COVID-19 pandemic began in 2020, the global shipping industry faced severe challenges, including disruptions to supply chains, international

trade, and soaring shipping costs (IMO, 2020; UNCTAD, 2024a). This situation was exacerbated by systemic "sea blindness", which refers to a complete lack of appreciation for the role of shipping and seafarers. This negligence led to a crew change crisis, disruptions in the supply chain, and ultimately contributed to a global cost of living crisis (Nautilus International, 2021).

Seafarers, vital to sustaining maritime supply chains, faced increased workloads, inconsistent pandemic prevention measures, and difficulties with shift changes and repatriation (Cotton, 2020; De Beukelaer, 2020; International Chamber of Shipping, 2020). Weak legal protections and uneven support systems across jurisdictions exacerbated their hardships, with many stranded at sea during the pandemic's peak (International Transport Workers' Federation, 2020a; Han *et al.,* 2023).

The war in Ukraine has also significantly impacted seafarers and global supply chains. Regular crew changes are essential for industry sustainability and around 2,000 seafarers were trapped on vessels in Ukrainian ports when Russia's assault began, facing threats of attack, food shortages, and inadequate medical supplies, with some fatalities reported (Risk Management Magazine, 2022). Russian and Ukrainian nationals make up a notable segment of the global maritime workforce (International Chamber of Shipping, 2022) and the conflict has disrupted crew repatriation due to suspended flights and reduced port calls in both countries (Dempsey and Riordan, 2022; Grygoriuk 2022).

Beyond facilitating commerce, the shipping industry significantly contributes to global security by supporting humanitarian aid, peacekeeping missions, and naval operations. The resilience of supply chains is closely linked to the efficiency and adaptability of maritime transport, which has proven critical during crises such as pandemics, natural disasters, and geopolitical tensions (United Nations General Assembly, 2020; Girardi and Jang, 2024).

By maintaining these vital trade routes, seafarers play an essential role in ensuring economic stability and security on a global scale.

2.2 Aim, approach, and Scope of the Report

The purpose of this background report is to provide available data on the current state of NATO-owned and controlled merchant fleets and their pool of seafarers, assess the implications for security and resilience, and offer policy recommendations for improvement.

The report draws on various theoretical frameworks and approaches to understand the strategic significance of national fleets within the NATO context. It examines the decline of national fleets and the increasing reliance on foreign-flagged vessels mostly under flags of convenience, which can undermine national sovereignty, security and resilience. Additionally, it evaluates the effectiveness of current maritime policies in supporting fleet and seafarer resilience and proposes strategies to enhance maritime security.

The report seeks to address the following key questions:

- How does the decline of national fleets affect the overall resilience of NATO's shipping capacity?
- In what ways are NATO countries' maritime policies influenced by institutional factors (e.g., international governance), contributing to greater dependence on foreign shipping and seafarers, and how might this impact resilience during crises?
- What are the long-term consequences of reduced local seafarer employment on national security and resilience?

Data has been gathered from a wide range of sources to ensure a comprehensive understanding of the topic. These sources include industry reports, institutional publications, academic journal articles, and news stories from reputable outlets. By integrating insights from these diverse perspectives, the report aims to provide a well-rounded foundation for analysis.

The report is structured in five chapters. The rest of this report is organized as follows:

Chapter 3 examines the current status of NATO-owned and controlled merchant fleets, focusing on the availability of vessels and seafarers. Data were gathered from multiple sources, and despite challenges in obtaining consistent and comparable records across different jurisdictions, valuable insights can still be drawn.

Chapter 4 presents case studies from the United Kingdom (UK), the United States of America (USA), Greece, and Norway. This chapter also explores existing maritime policies, including fiscal support schemes, and evaluates their effectiveness in achieving objectives such as retaining national flags and increasing national seafarer[4] employment.

The UK is a major maritime power and as an island nation relies on maritime trade and secure sea routes. The Council on Geostrategy's recent report (2024), emphasizes the importance of revitalizing British sea power as a fundamental pillar of national security and economic stability, and champions a "NATO-first" defence strategy, echoing the Labour government's dedication to strengthening the UK's position within the Atlantic alliance.

The United States stands as a maritime superpower and has unparalleled global influence due to its heavily armed warships, capable of covering thousands of miles within days. This mobility makes the Navy an exceptionally effective instrument for addressing international crises (Council on Foreign Relations, 2024). Like the UK, maritime trade and secure sea routes are essential to its economic security.

Greece's strategic importance to NATO is crucial to escalating security challenges in the southeastern Mediterranean. Positioned at the crossroads of Europe, Asia, and Africa, geopolitical hotspots, Greece provides critical military infrastructure, a strong defence posture, and steadfast support for democratic values and international law (NATO Parliamentary Assembly, 2024a).

Norway has always played a crucial role as a maritime nation in NATO's northern flank, protecting NATO's transatlantic sea lanes. Amid shifting security dynamics, including Russia's invasion of Ukraine and the growing militarization of the Arctic, Norway acts as the first line of defence in the European High North (NATO Parliamentary Assembly, 2024b).

In Chapter 5, we analyze the implications of the current state of NATO-owned and controlled merchant fleets and seafarers on NATO's maritime security efforts. Specifically, we examine how the decline of NATO merchant fleets could impact broader maritime strategies in times of crisis, emergency or conflict.

Finally, Chapter 6 concludes with an outline of the governance inconsistencies that have contributed to the decline and offers recommendations for fostering renewal of national merchant fleets and national seafarers.

Throughout the report, we emphasize that national merchant shipping and skilled national seafarers are vital to NATO's military power. They form the logistical backbone for transporting troops, equipment, and supplies, ensuring the alliance's defence capabilities and economic security and therefore its ability to deliver its Article 5 commitment.

[4] For the purposes of this report, "domestic" or "national" seafarers refer to individuals holding the nationality of a NATO member state.

3. NATO-owned and controlled merchant fleets and seafarers

A NATO-registered total number of vessels, including small vessels of all types that is self-propelled seagoing merchant vessels of 100 GT and above, has been estimated at 16,916 as illustrated in Table 1. By comparison, at the start of 2024, the global fleet was made up of around 109,000 vessels (including cargo and non-cargo ships), of at least 100 gross tons (UNCTAD 2024a).

NATO's total number of seafarers is estimated at 420,935, approximately 22.24% of the world's total number (UNCTAD 2024a).

It should be borne in mind that the "Fleet National Flag Number of Ships" in Table 1 include all vessels of 100 GT or more. In the case of the United States, for example, of the 3492 vessels tabulated, the overwhelming majority of these vessels are limited tonnage vessels operating in inland waters, with crews qualified only for inland, small vessel service. It may be helpful to know that the celebrated Liberty Ships of World War II were approximately 7000 GT. As will be seen further down below, large ocean-going vessels with qualified crews such as would be required for NATO defence purposes are in much reduced numbers.

NATO and the EU have 23 members in common: Belgium, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

Malta and Cyprus, who are not NATO members, have significant maritime interests in the European Union and operate as flags of convenience[7]. For 2024, UNCTAD (2024a) reported 1950 ships registered under the flag of Malta, and 1009 ships registered under the flag of Cyprus[8]. The majority of the ships registered in Malta and Cyprus were owned in Southern and Western Europe (Greece, Germany and France were the top three countries of ownership)[9].

The International Consortium of Investigative Journalists (ICIJ) revealed in 2023 that Cypriot investment firms and banks have been allegedly involved in hiding the wealth of sanctioned Russian oligarchs and billionaires (Starkman, 2023). The ICIJ revelations highlight a significant NATO security concern. Such financial networks undermine the effectiveness of international sanctions, enabling adversaries to sustain their influence and resources. This poses risks to NATO's collective security, as it may facilitate the funding of activities that threaten regional stability and alliance objectives. Addressing these vulnerabilities is therefore critical to strengthening NATO's resilience against hybrid threats (GOV.UK., 2024).

[7] See Appendix 2 for the full definition of a flag of convenience (FOC), according to the International Transport Workers' Federation (ITF), as provided in the Marrakech Policy (International Transport Workers' Federation, 2024). The ITF believes there should be a genuine link between the real owner of a vessel and the flag the vessel flies, in accordance with Article 91 of the United Nations Convention on the Law of the Sea (UNCLOS). In accordance with Article 94 of UNCLOS, flag States must effectively exercise control over ships on their register and in the absence of a genuine link, as in the case of FOC registries, the ITF maintains that no such control exists.
[8] All propelled sea-going merchant vessels of 1000 GT and above.
[9] For Cyprus, 269 ships were reported to be owned in Greece, 144 in Germany. For Malta, 582 ships were reported owned in Greece, 163 ships in France (UNCTAD, 2024a). Detailed data sources are available at: unctadstat.unctad.org/datacentre/

Table 1 *NATO countries: maritime key figures for 2023 (adapted from UNCTAD, 2024a)*

Country	Fleet-national flag[5] Thousands DWT	Fleet-national flag Number of ships	Fleet-ownership[6] Thousands DWT	Number of seafarers
Albania	45	69	101	836
Belgium	9 155	196	26 714	4980
Bulgaria	114	78	1 960	22762
Canada	3 472	715	9 700	11652
Croatia	1 535	384	2 397	20495
Czechia			No value reported	38
Denmark	25 330	711	40 270	26159
Estonia	83	72	1 311	4498
Finland	1 152	285	2 539	10011
France	8 239	528	17 596	15914
Germany	7 271	594	76 249	12234
Greece	58 940	1214	394 667	30507
Hungary	0.135	1	No value reported	40
Iceland	18	39	96	237
Italy	9 107	1253	14 205	3601
Latvia	172	84	949	8088
Lithuania	180	58	271	3105
Luxembourg	1 417	149	2 327	2991
Montenegro	142	18	140	649
Netherlands	6 599	1187	17 573	9667
North Macedonia				No value reported
Norway	23 464	1713	55 797	22887
Poland	103	153	2 692	31222
Portugal	26 913	888	1 090	1238
Romania	80	127	1 604	17708
Slovakia	No value reported		5	112
Slovenia	2	8	135	374
Spain	1 901	501	4 530	24487
Sweden	1 247	361	4 632	12527
Türkiye	6 667	1181	37 948	28587
United Kingdom	10 688	857	56 840	33743
USA	12 623	3492	51 673	59586

[5] Propelled seagoing merchant vessels of 100 GT and above
[6] Propelled seagoing merchant vessels of 1000 GT and above

3.1 Availability of ships: Current Status and Challenges

Amongst the NATO Member States', the United States of America have the biggest number of ships registered, followed by Norway, Italy, Greece, the Netherlands and Türkye, as illustrated by Figure 3.

Figure 4 shows the capacity of NATO's merchant fleet. It is significantly smaller compared to China's fleet for example. As of 2023, China's merchant fleet capacity was 127 487 thousand deadweight tons (UNCTAD, 2024a), while individual NATO countries have much smaller fleets. Greece, while having the largest ship capacity among NATO countries at 58 940 thousand DWT in 2023 (UNCTAD, 2024a), still falls short of China's combined owned and flagged capacity.

The following data provides different measures of world shipping fleets, including information by country of registration (flag). Every merchant ship must be registered in a country (the 'flag State') and ship registration can, in part, be considered as an indicator of the overall health of a country's maritime sector (Department for Transport 2024). All figures are based on vessels of 100 gross tonnes (GT) or over. To analyze the data and provide context for the interpretation, it is important to remember that a vessel of 1,000 gross tonnage (GT) is considered relatively small compared to large ocean-going vessels like container ships or oil tankers, which often exceed 50,000 GT. They are not ideal for long transoceanic journeys due to limited fuel capacity, endurance, and cargo space and are more suited for coastal, regional, or near-sea operations rather than deep-sea, global shipping.

Figures 5 and 6 show that the world fleet is dominated by non-NATO flags, and more to the point, by flags of convenience, where the country of a vessel's flag is not the same as the nationality of the ship's owner. International law mandates that all vessels must be registered with a recognized ship registry and operate under the flag of their country of registration. Article 91 of the United Nations Convention on the Law of the Sea (UNCLOS) requires a "genuine link"

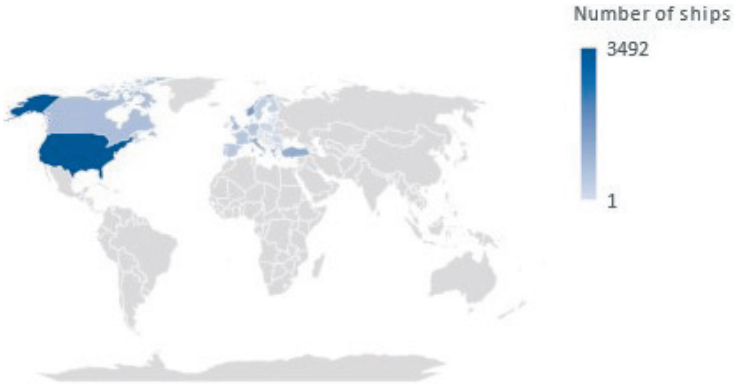

Figure 3 *Number of propelled seagoing merchant vessels of 100 GT and above registered in NATO Member States', 2023 (adapted from UNCTAD, 2024a)*

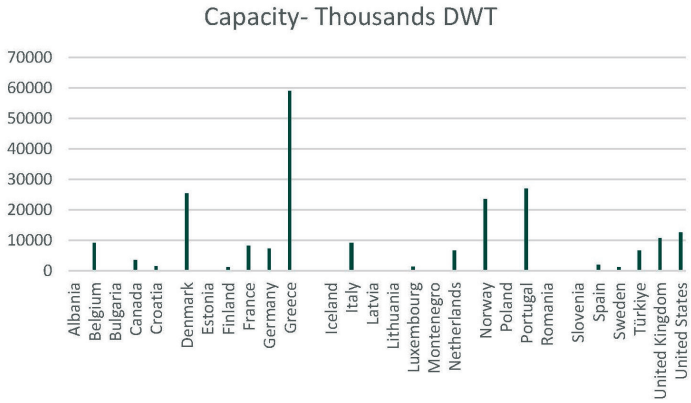

Figure 4 *Fleet- National flag- Propelled seagoing merchant vessels of 100 GT and above, 2023 (adapted from UNCTAD, 2024a)*

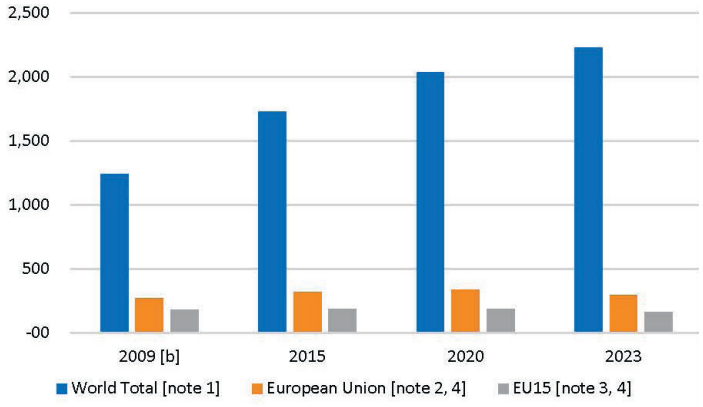

Figure 5 *World fleet registered trading vessels of 100 GT and over, deadweight tonnage (million tonnes), from 2009 to 2023 (adapted from UK Department for Transport, 2024)*[10]

between a vessel and its flag state. Article 94 of UNCLOS requires States to effectively exercise control over matters technical, social and environmental on vessels on the ship register.

However, despite ongoing efforts, there is no universally agreed-upon definition of what constitutes a "genuine link". The United Nations Convention on Conditions for the Registration of Ships (1986) attempted to clarify how a State might guarantee a genuine link but the Convention has not been widely ratified and has not entered into force[12].

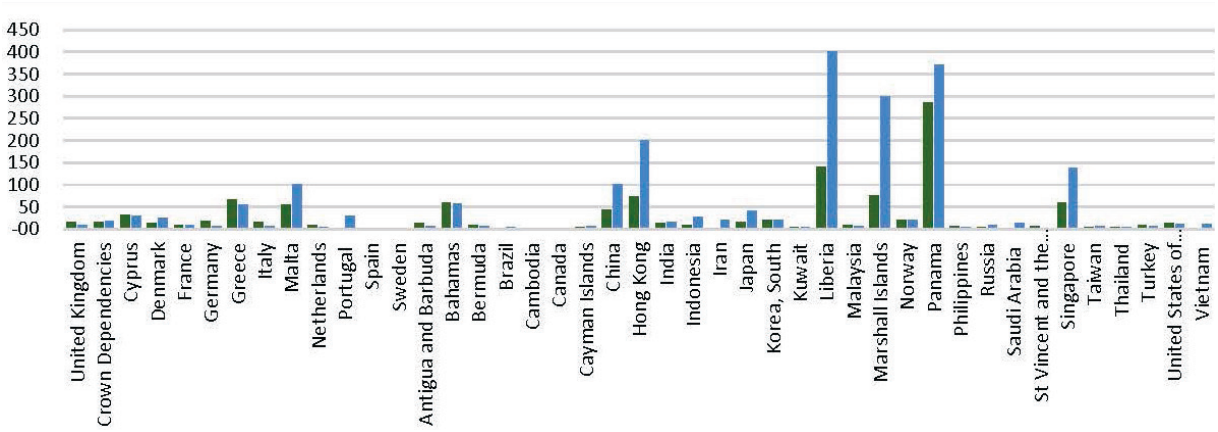

Figure 6 *World fleet registered trading vessels of 100 GT and over, deadweight tonnage (million tonnes), on selected registers, from 2009 to 2023 (adapted from Department for Transport, 2024)*[11].

[10] Note 1: Includes 'unknown' registered flags.
Note 2: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom and EU includes Overseas Territories.
Note 3: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain , Sweden, United Kingdom and EU includes Overseas Territories
Note 4: United Kingdom excluded from EU totals from 2021. EU15 countries and European Union for 27 countries (Department for Transport 2024).
[11] Time series does not go beyond 2009 for Portugal (MAR: Madeira International Shipping Register who fly Portuguese flag), Saudi Arabia and Vietnam (Department for Transport, 2024). [b] is used to show changes in data source and methodologies (Department for Transport, 2024).
[12] The 1986 UN Convention on Conditions for Registration of Ships establishes international standards for the registration of vessels in a national registry, including references to the genuine link, ownership, management, registration, accountability and the role of the flag State. However, the Convention has not entered into force. (1987) 26 ILM 1229. treaties. un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XII-7&chapter=12&clang=_en

Flags of convenience, albeit they have significant differences in conditions for the registration of ships, usually attract shipowners due to the lack of effective control, tax benefits and the ability to hire international crews at lower costs, reducing overall operational costs.

For example, at the beginning of 2022, 49 per cent of all ships owned by Japanese entities were registered in Panama; of the ships owned by Greek entities, 25 per cent were registered in Liberia and another 23 per cent in the Marshall Islands (UNCTAD, 2022).

The Review of Maritime Transport 2023 and 2024 (UNCTAD, 2023; UNCTAD, 2024a) confirms that regarding flag registration and ownership, over 70% of global ship capacity in 2022 and 2023 was registered under foreign flags and that countries such as Germany, Greece, Japan, Korea, and the UK had a higher share of foreign-flagged tonnage (Table 2), while it was lower in countries like China, Denmark, Hong Kong (China), and India.Vessel registration services tend to be concentrated in developing regions, especially in small island developing states and least-developed countries (Zhang and Drumm, 2020; UNCTAD, 2023; UNCTAD 2024a).

In 2022, seven of the top 10 flags were flags of convenience (e.g., Panama, Liberia, Marshall Islands), and three were national registries (China, Greece, Japan) (UNCTAD, 2023). The selected flags in Figure 7 represent 74 per cent of global shipping capacity.

Table 2 *NATO fleet ownership as of 1 January 2024, percentage of ships by capacity (DWT) under a foreign flag (adapted from UNCTAD, 2024a)*

Top NATO countries in terms of ship owning nations	Country or territory of ownership	Foreign flag as a percentage of total
1	Greece	87.3
2	Germany	89.9
3	UK including Isle of Man	83.4
4	Norway	67.6
5	USA including Puerto Rico	77.8
6	Türkiye	85.8
7	Denmark	47.6
8	Belgium	70.9
9	France	77.4
10	Kingdom of the Netherlands	69.9
11	Italy	49.9
12	Canada	73.5

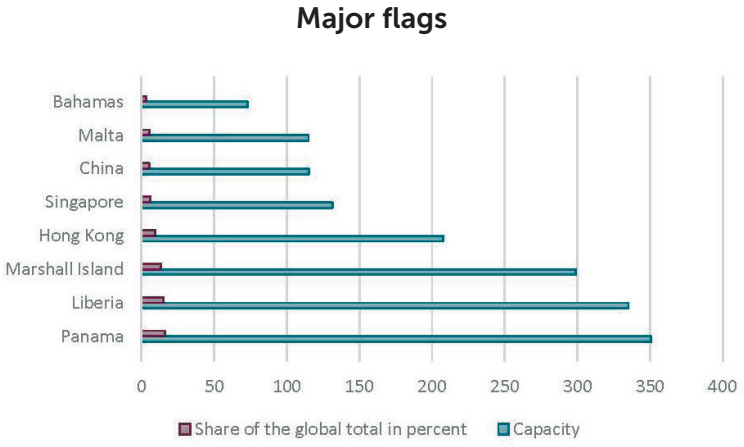

Figure 7 *Country of registration by total loading capacity in 2022, in million deadweight tons (adapted from Statista, 2023)*

3.2 Availability of seafarers: Trends and Gaps

The Philippines, the Russian Federation, Indonesia, China and India are the largest suppliers of ratings and officers working on merchant ships worldwide (ICS/BIMCO Seafarer Workforce Report, 2021). Most of the world's seafarers are recruited by crewing agencies or ship management firms. They are sent overseas to join a ship under a foreign flag, more often than not a flag of convenience.

Nations like China, India, and the Philippines provide a growing pool of potential recruits. Between 2013 and 2016, officer supply grew rapidly due to increasing wages and promising career prospects, but growth has since slowed to around 0.8%-0.9% annually by 2021 (Drewry, 2021).

According to the research (Drewry, 2021), several factors may have contributed to this slowdown including:

- Stagnant wages: low wage growth and improved onshore job opportunities.
- Administrative burdens: increased compliance demands and risks of criminalization deter senior officers.
- Early retirement: many officers retire in their 50s, reducing the workforce.
- Automation concerns: rising automation limits career progression, reducing the profession's appeal.
- Demand declines: oil price crashes, the offshore sector downturn, and COVID-19 reduced demand, especially in the cruise sector.

At the regional level, the EU shipping industry is estimated to have supported a total of 2 million jobs in 2018, either directly, through its supply chain or through workers' spending. It has been estimated that the majority (53%) of workers in the EU shipping industry are employed in freight transport or transport of goods by sea (Oxford Economics, 2020).

More specifically, and according to industry research (Oxford Economics, 2020), the EU shipping industry employs some 550,000 seafarers of whom 210,000 are officers and 345,000 ratings, with smaller numbers (115,000) employed onshore in the various shipping offices and services. These are relatively small numbers for a global industry. The data further show that:

- 83% of European shipping industry employment comprises positions at sea.
- Officers account for an estimated 38% of positions at sea, and ratings 62%.
- 38% (210,000) of the estimated 555,000 seafarers employed in the EU shipping industry were EU/EEA nationals in 2018, and 62% (345,000) of the seafarers were non-EU/EEA nationals.

Figures from the European Maritime Safety Agency (EMSA, 2022) show that by the end of 2020, there were 189,278 masters and officers (deck and engine) holding valid certificates of competency issued by EU Member States (taking into account Brexit in January 2020), with a further 127,958 holding original certificates of competency issued by non-EU countries with endorsements issued by EU Member States. The total number of ratings/seafarers (deck and engine) holding valid certificates of proficiency in 2020 in the 16 EU Member States who voluntarily reported such data was 74,813.

Reliable, accurate and standardised data for the industry in Europe are however lacking. Systems holding certification data collect a

range of seafarer details but for the most part, cannot distinguish whether a seafarer is active at sea or not. Further, employment-based data sources rarely hold seafarer-specific data (Ellis *et al.,* 2021)[13].

As illustrated in Figure 8, the worldwide total number of seafarers is estimated at 1,892,725. NATO's total number of seafarers is estimated at only 420,935, approximately 22.24% of the world's total number (UNCTAD, 2024b).

In the case of the USA, while 59,586 seafarers are listed, of those only approximately 12,000 are qualified and available for ocean-going service aboard unlimited tonnage vessels (U.S. Department of Transportation Maritime Administration, 2017).

This shortage of a robust seafarer workforce can pose a significant challenge to NATO's ability to effectively project power, sustain military operations and respond to global crises, underscoring the critical need for NATO nations to invest in their maritime capabilities (Nautilus Federation, 2024).

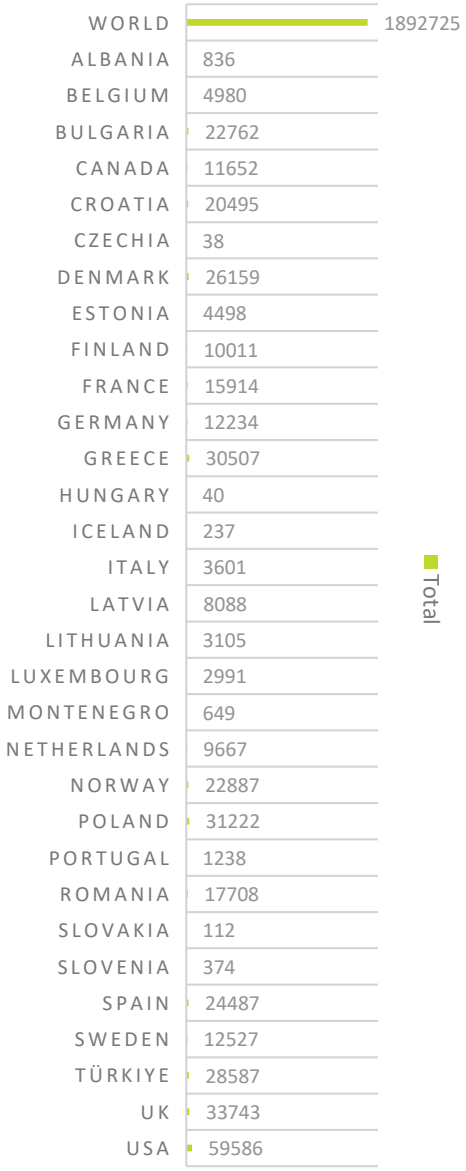

Figure 8 *Total number of seafarers in NATO countries[14] (adapted from UNCTAD, 2024b).*

[13] In this report, discrepancies between international and national data have been observed. There are differences in concepts, definitions, quality standards, and methodologies used as well as potential issues with data collection, reporting practices, and this report acknowledges the challenges of harmonizing diverse national systems into comparable international frameworks. However, our conclusion is that the data used in this report to inform the analysis in most cases represents a best case scenario.
[14] No values have been reported for North Macedonia

3.3 Key Insights: Challenges and Opportunities in NATO's Maritime Assets

The data presented in Sections 3.1 and 3.2 show that the NATO fleet of merchant vessels is shrinking, with fewer ships being under the effective control of of the individual NATO members within the NATO alliance as a whole. The practice of registering ships to other countries' registries, i.e. flags of convenience, has contributed to this decline in NATO-controlled merchant vessels.

The data also shows that the reduction in the number of ships is also coupled with a decline in NATO merchant seafarers, with fewer job opportunities.

The reduction in the NATO fleet of merchant vessels and the decline in available NATO merchant seafarers have significant implications regarding potential security concerns. Before moving on to the implications for NATO (Chapter 5), the following Chapter 4 will present national case studies, looking into country-specific approaches to maritime policy, and challenges and opportunities for NATO's strategic objectives.

4. Shipping policies: case studies

The following case studies are presented due to their maritime importance and key roles in the Atlantic alliance: the United Kingdom (UK), the United States of America, Greece and Norway. The UK, as a major maritime power, depends on secure sea routes and maritime trade. The United States, a maritime superpower, wields unmatched global influence through its highly mobile and armed navy, capable of addressing international crises rapidly. Greece is strategically vital to NATO in the southeastern Mediterranean, providing key military infrastructure, a robust defence posture, and support for democratic values. Norway, a key maritime nation on NATO's northern flank, safeguards transatlantic sea lanes amid increasing security challenges.

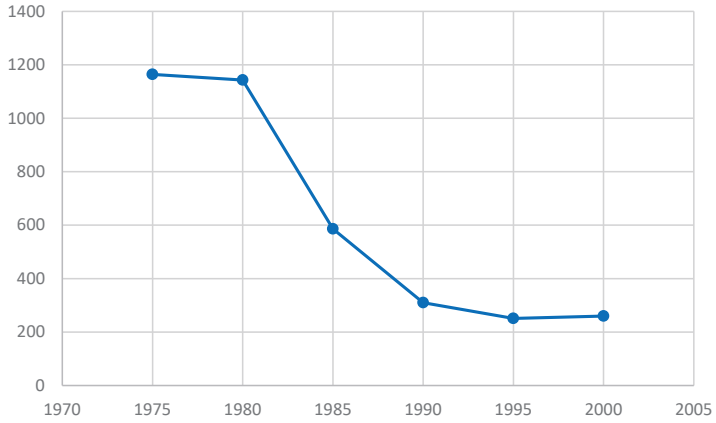

Figure 9 *Number of UK-owned and registered trading ships 500 GT and above (adapted from NUMAST, 2000)*

4.1.1 United Kingdom

At a meeting of the NATO Transport Group on 5 November 2024, Nautilus International stressed that Europe, and critically the UK, faced a severe decline in seafarer numbers and national merchant fleets, which undermined military logistics and essential supply chains during crises:

> *"Across NATO member countries, we've witnessed a steady decline in nationally flagged merchant vessels and national seafarers, as shipowners have increasingly opted for the convenience and cost-savings of flags of convenience. The pool of domestic seafarers has dwindled, with many of the allies' – and, critically, the UK and US – merchant marines facing steep declines in both officer and rating numbers" (Dickinson, 2024).*

The stakes are critical. Historical data (Figure 9) from Nautilus International's predecessor trade union, NUMAST, reveals a sharp decline in UK-flagged merchant vessels, plummeting from over 1,164 in 1975 to just 251 by 2000 (NUMAST, 2000).

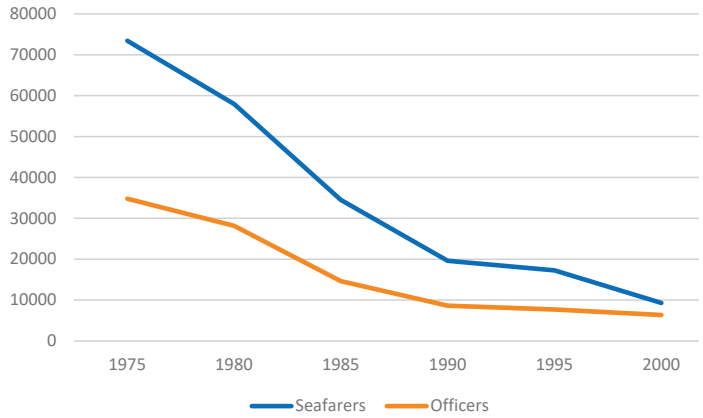

Figure 10 *Number of all British seafarers and all British Officers employed on UK registered ships (adapted from NUMAST, 2000)*

Over the same period (1975-2000), the number of all British seafarers (Officers and Ratings) employed on UK-registered ships decreased from a total of 108,723 to an estimated 15,666 as illustrated in Figure 10 (NUMAST, 2000).

In December 1998, the British government published "Charting a New Course", a policy document aimed at turning the tide for the British merchant navy/mercantile marine, paving the way to a tonnage tax scheme on ships for UK shipping to incentivise growth in the UK ship register (UKSR) and in UK seafarers training and employment. The size of the UK fleet on the world scale diminished down to 7 million DWT in 1999 from a high of 50 million DWT in 1975 (Yin, 2020), and the number of British qualified officers dropped from 28,000 in 1980 to 17,000 in 1998 (House of Commons, 1993 in Gekara, 2020). In 2000, fiscal incentives based on reduced corporation taxes were adopted to boost the declining shipping industry undermined by lower foreign taxes and enhance the employment prospects of British seafarers as well as maintain an important skill base through more support for training (Brownrigg *et al*., 2001, Selkou and Roe, 2002; Leggate and McConville, 2005; Gekara, 2010). In the years that followed, UK-registered and UK-operated tonnage did rise. However, this new growth policy didn't quite achieve the expected success for both business and labour (Marlow and Mitroussi, 2011, Gekara, 2020).

> *"(...) In the long run, the tonnage tax seems to be connected more with the 'flagging out' of foreign-owned tonnage than with the 'flagging in' of nationally owned vessels" (Marlow and Mitroussi, 2011).*

Albeit the extent to which the tonnage tax policy has been successful is subject to academic and industry debate (Gekara, 2020), the net increase in the UK-owned and registered ships remained limited. In 2023, the Department for Transport reported the total number of UK-owned and registered vessels of 500 GT[15] and over as just 135.

A report into the UK maritime cluster (Department for Transport, 2015) has highlighted that since 2009, while the world fleet has increased by 34 per cent to 1,669.7 million dwt, the UK registered fleet decreased by 27 per cent to 12.6 million dwt and the UK's share of the world feet decreased from 1.9 to 1.1 per cent in 2014.

The United Kingdom's fleet of trading vessels of 100 gross tons and over, from 1999 to 2023, despite a peak around 2009, represents 0.5 percent of the world fleet in 2023 (Figure 11). According to the UK Department for Transport (2024), in the year to the end of December 2023, overall vessel numbers continued to decrease, falling by 1% compared to 2022 despite the slight increase in gross tonnage. After 3 years of growth up to 2017, gross tonnage declined sharply in 2019 and has since levelled off. This also shows that the tonnage tax scheme seems to have been effective in the early years of its application until its competitive edge diminished (Marlow and Mitroussi, 2011; Bilbao-Ubillos *et al*., 2021).

The evolution of the number of UK and Crown Dependency[16] Registered trading vessels of 500 GT and over between 1950 to 2023 show a sharp decline until the 1990s followed by a slight rise, and has since the past few years levelled off (Figure 12).

Figure 13 shows that the capacity of United Kingdom and Crown Dependency registered trading vessels of 500 gross tons and over has seen a decline in recent years. As of December 2023, the gross tonnage on the UKSR was 10.4 million gross tonnes, which is a 1% increase from 2022. However, this figure remains 36% lower than the peak reached in 2017. The decline has been particularly sharp since 2019, after which it has levelled off (Department for Transport, 2024).

[15] Gross tonnage (GT) represents the size of the vessel and is not a measure of weight – it is calculated using a formula based on the volume of enclosed spaces of the vessel. It is used to assess the cost of vessel registration and is the headline tonnage measure for the UKSR (UK Department for Transport)
[16] United Kingdom (UK): Great Britain and Northern Ireland. Crown Dependencies: Isle of Man, Jersey, and Guernsey.

One particularity of the United Kingdom is its links with the Crown Dependencies and Overseas Territories[17]. The Red Ensign Group (REG) is a coalition of ship registers coalescing under the influence of the UKSR and flying the Red Ensign or a defaced version. It comprises two categories:

- Category One (unlimited tonnage and type): UK, Isle of Man, Bermuda, British Virgin Islands, Cayman Islands, and Gibraltar.
- Category Two (restricted tonnage): Guernsey, Jersey, Anguilla, Falkland Islands, Montserrat, St Helena, and the Turks and Caicos Islands.

Certain of these registers, i.e. Bermuda, Cayman Islands, and Gibraltar, have been classified as Flags of Convenience (FOCs) by the International Transport Workers' Federation (ITF). Several REG registers have come under the scrutiny of the OECD as offshore tax havens including Bermuda and the Cayman Islands (OECD, 2024).

The REG arrangement creates significant unfair competition for the UK Ship Register (UKSR). While British shipowners and others can register through the REG to access UK-level services (e.g. naval protection) at lower costs, they avoid UK taxes and regulations, bypassing the UKSR. The UK is also seen as supporting the Flags of Convenience (FOC) system and offshore tax havens, which undermines global fairness. As a result, more UK shipping companies are moving to other flags, putting pressure on UKSR numbers (Nautilus International, 2016).

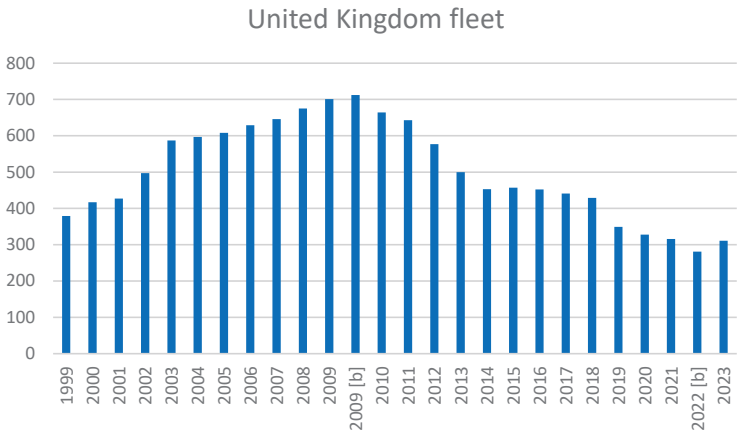

Figure 11 *UK registered trading vessels of 100 GT and over from 1999 to 2023 (adapted from Department for Transport, 2024). [b] is used to show changes in data source and methodologies*

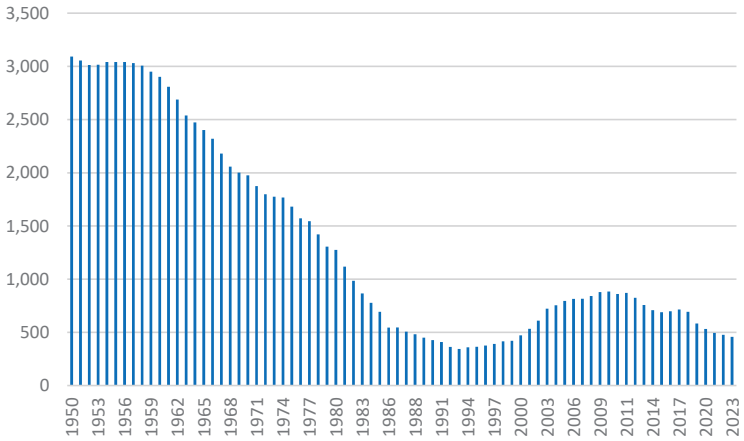

Figure 12 *Total number of UK and Crown Dependency registered trading vessels of 500 GT and over, 1950 to 2023 (adapted from Department for Transport, 2024)*

When it comes to boosting training and employment prospects for British seafarers, and filling technical, on-shore positions with skilled sea-going experience as well as sustaining the British maritime cluster overall, the results of the tonnage tax policy are disappointing (Gekara, 2020). Not only

[17] Overseas Territories: Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Montserrat, St Helena, Turks, and Caicos Islands (and, prior to 1997, Hong Kong).

has the maritime sector faced growing international competition from low-cost labour supply countries but it also seems that shipowners never truly committed to fulfil their obligations under the scheme (Gekara, 2020).

As can be observed in Figure 14, notwithstanding the effects of the COVID-19 pandemic, non-EEA seafarers active at sea have steadily increased over the years among the UK Chamber of Shipping Member Organisations.

According to the Department for Transport (2025), after adjusting for non-response, an estimated 23,700 UK seafarers were active at sea in 2024, a decrease of 2% compared to the 2023 figure. In 2024, the number of UK seafarers active at sea by type was:

- 10,620 Certificated Officers
- 9,880 Ratings
- 1,700 Uncertificated Officers
- 1,500 Officer Cadets

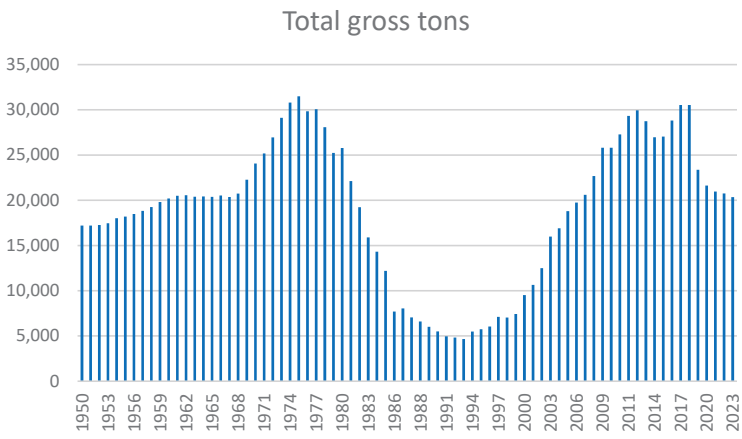

Figure 13 *United Kingdom and Crown Dependency registered trading vessels of 500 gross tons and over: from 1950 to 2023, Gross tonnage in thousand tonnes (adapted from Department for Transport, 2024)*

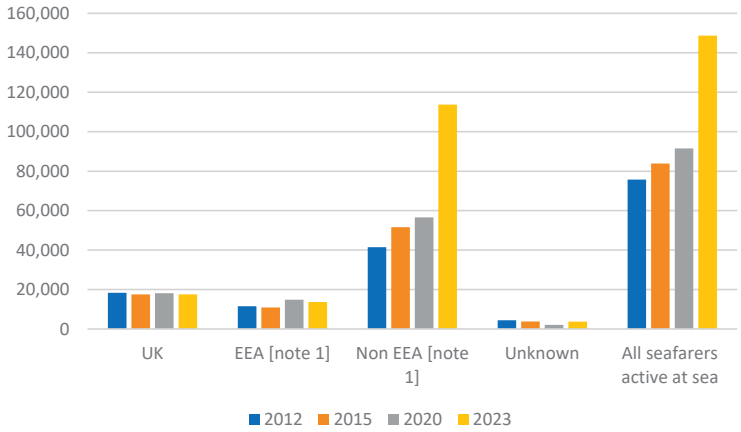

Figure 14 *Seafarers active at sea, UK Chamber of Shipping Member Organisations 2012 to 2023 (adapted from Department of Transport, 2024)*[18]

Between 2012 and 2020 numbers have been broadly stable except for an increase in 2018. Related to the impact of the coronavirus pandemic, numbers decreased markedly in 2021 and remained low in 2022. For 2023 onwards, data provided by Maritime and Coastguard Agency (MCA) has been calculated using a different methodology and is not comparable with previous years (Department for Transport, 2024).

The majority of UK seafarers active at sea and working for companies within the membership of the UK Chamber of Shipping were male (84%), with larger female representation in uncertificated Officers and Ratings (Department for Transport, 2024).

There is no requirement to employ UK seafarers on UK-flagged vessels, and in

[18] Note 1: An adjustment was made for a large proportion of missing EEA and Non-EEA Ratings in 2021 so comparisons should be treated with caution (Department for Transport, 2024).

2023, there were 41,930 valid certificates which were issued by the MCA to work on UK vessels, 14,960 of these were UK nationals. These figures had been broadly stable between 2010 and 2020 but saw a decline in 2021 and 2022 (Department for Transport, 2024).

In 2021, UK seafarers were estimated to account for 1.8% of the global seafarer supply. This is an increase compared to the previous 2015 report in which UK seafarers were estimated to account for 0.9% of global supply (International Chamber of Shipping and BIMCO, 2021). Yet, while UK officers are sought after for international voyages, they tend to be concentrated on domestic ferry routes and North Sea oil and gas operations (Drewry, 2021).

Against this backdrop, Nautilus International (2020) advocates for a comprehensive review of the UK shipping industry's structure and employment practices, emphasizing transparency and alignment with national interests. In particular, they push for more transparency and accountability as well as reform in policies, as the current fiscal support, including tonnage tax, may not provide value to taxpayers, nor support outcomes in the national interest.

Following Brexit, the UK had initially not envisaged to restrict cabotage to safeguard national maritime interests since the UK maintained that fostering an open approach encouraged competition and resulted in improved and more efficient services[19]. However, following the P&O Ferries scandal (Nautilus International, 2022) where P&O Ferries Ltd sacked 786 seafarers by video in March 2022, without prior notice or consultation and announced plans to move to a new operating model using agency workers to crew its ships who would be paid less than the National Minimum Wage (NMW), the Government issued a nine-point plan[20] for seafarers. These measures included proposals for legislation to impose on British ports an obligation to check adherence to the UK minimum wage and grant powers to refuse access to ferries that do not pay their crew at least an equivalent to the UK National Minimum Wage (Brione and Tyers, 2022). The Seafarers' Wages Act 2023[21] ensures now that seafarers working on ships that use UK ports at least 120 times a year are paid a rate at least equivalent to the UK National Minimum Wage for their work in UK waters.

Additionally, recent government amendments to the Employment Rights Bill should pave the way for a mandatory Seafarers Charter, introducing stronger protections for maritime workers. These new measures include more frequent rest periods, stricter welfare and training requirements, safer working conditions, and wage protections beyond UK waters (Department for Transport, 2024).

According to Nautilus International, ship registration, training, and employment policies need evaluation. The UK Tonnage Tax scheme should mandate a link to the UK flag, support UK seafarer training and employment, and contribute to environmental objectives. Moreover, it is critical to strengthen UK maritime capabilities and give better prospects for the UK register. This means that support for competitive open registers like REG should be reassessed. Fiscal incentives should reward shipowners who support the UK's maritime resilience and security.

[19] The Maritime Transport Access to Trade and Cabotage (Revocation) (EU Exit) Regulations 2019, explanatory memorandum
[20] Department for Transport (2022). Nine-point Plan for Seafarers – Our Commitments to Protect Seafarers. GOV.UK. Available at: www.gov.uk/government/publications/nine-point-plan-for-seafarers-our-commitments-to-protect-seafarers/74dfb1c4-37c3-4916-a169-1b74df5067a5 [Accessed 6 Jan. 2025].
[21] Legislation.gov.uk. (2023). Seafarers Wages Act 2023. Available at: www.legislation.gov.uk/ukpga/2023/8/enacted.

4.1.2 United States of America

Historically deemed the nation's "fourth arm of defence" by President Franklin D. Roosevelt, the U.S. Merchant Marine has been and continues to be essential in supporting U.S. international trade and providing critical support in times of crises (Biden, 2021). Maritime vessels accounted in 2020 for 40% of U.S. international trade value, nearly 70% of trade weight, with trade of goods accounting for 18% of GDP (Bureau of Transportation Statistics, 2021).

However, the U.S. merchant fleet has declined and recent articles emphasize the critical need to rejuvenate the U.S. maritime sector to bolster national defence, sustain economic growth, and counter Chinese dominance in global shipping (Gomez, 2024; Michaels, 2024; Michaels and Youssef, 2024).

A detailed research report (Bratton and Schuster, 2015), published a decade ago but still relevant today, brought to light that the U.S. was at risk of losing control over its maritime security due to a shrinking merchant marine and reliance on foreign-flagged ships, which prioritized profits over safety and national security. The report concluded that this decline threatened the ability to supply troops during crises and made the U.S. vulnerable to China's growing naval and commercial maritime power. The report's authors urged the U.S. to invest in its Merchant Marine, expand programs like the Maritime Security Program, and protect laws like the Jones Act[22] to maintain jobs, boost economic growth, and safeguard national security.

The criticisms are not new. At the turn of the 21st century, concerns were raised about the significant challenges facing the U.S. Merchant Marine, including insufficient infrastructure, ships, and personnel. It was already observed that during the 1990-91 Gulf War, the merchant marine struggled to fulfill its mission of transporting war materiel, highlighting its limitations in times of crisis (Young, 2000).

It appears that despite the critical role of the merchant marine as a naval and military auxiliary under the Merchant Marine Act of 1936, national policies have largely overlooked its importance, necessitating urgent reassessment. Without urgent reforms, the U.S. may be unable to sustain military operations independently in a major future war. International Organization of Masters, Mates & Pilots (MM&P) President Don Marcus, speaking at the NATO Transport Group meeting in November 2024, urged allied nations to make significant investments in their merchant fleets:

> *"With rising geopolitical tensions threatening Europe, war in Ukraine, escalating violence in the Middle East, and efforts by other nations to dominate the high seas, NATO must confront the alarming decline in the number of qualified national merchant seafarers and national-flagged merchant vessels" (MM&P, 2024).*

The U.S. Maritime Administration (MARAD) critically reports that in the US today, there are just 12,000 deep-sea-qualified mariners with an average age of 46 (U.S. Department of Transportation Maritime Administration, 2017). The US fleet includes about 180 ocean-going merchant vessels, and even when combined with approximately 125 U.S. flag civilian-crewed, military chartered

[22] In a nutshell the Jones Act requires vessels participating in domestic trade to be built in the United States, owned by U.S. citizens, and crewed by U.S. mariners (Gomez, 2024). Section 27 of the Merchant Marine Act of 1920, as amended, popularly known as the Jones Act, requires vessels that serve the U.S. domestic trades be: owned by a U.S. citizen or by companies controlled by individuals that are U.S. citizens with at least 75 percent of ownership; operated with crews that are all U.S. citizens in licensed positions and at least 75 percent U.S. citizens in unlicensed positions; built (or rebuilt, or seized) in the United States; and registered under the U.S. flag with a coastwise endorsement from the U.S. Coast Guard (U.S. Department for Transportation, 2020).

vessels, government-owned naval auxiliary ships of every type, and 48 Ready Reserve vessels, totals only about 350 ships (U.S. Department of Transportation Maritime Administration, 2017; U.S. Department of Transportation Maritime Administration, 2019; MM&P, 2024).

The U.S. Maritime Administration (2023) reported a fleet of 177 oceangoing, self-propelled vessels of 1,000 gross tons and above, of which 153 were militarily useful and 93 were eligible for Jones Act service, down from 193 in 2000.

Figure 15 shows the evolution of the United States flag privately-owned Jones Act – Eligible Merchant Fleet, from 2000 to 2019 (oceangoing self-propelled, cargo-carrying vessels of 1,000 Gross Tons and above) and demonstrates the capacity of the US merchant fleet has significantly declined,

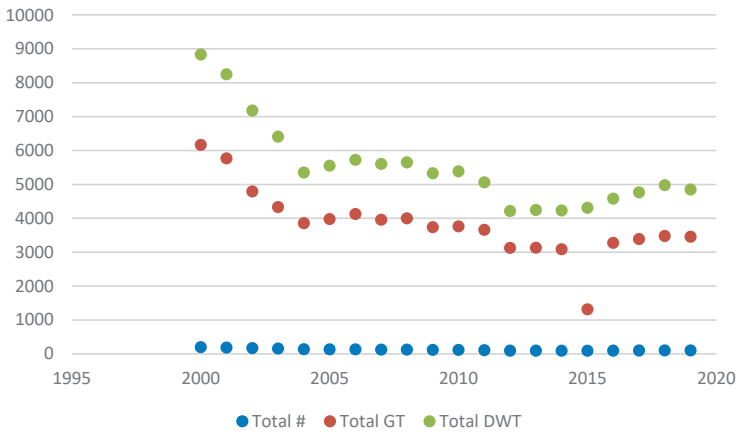

Figure 15 *United States Flag Privately-Owned Jones Act – Eligible Merchant Fleet, 2000 – 2019, Oceangoing Self-Propelled, Cargo-Carrying Vessels of 1,000 Gross Tons and Above (adapted from the U.S. Department of Transportation Maritime Administration, 2019)*

both in terms of the number of vessels and the overall tonnage. It is also important to remember that a vessel with 1,000 gross tonnage (GT) is considered small to medium-sized, in relation to the data collected on merchant vessels of this size. Such vessels are typically used for coastal or regional operations rather than long ocean-going voyages, and might not necessarily be military useful.

UNCTAD (2024a) reports for 2024, a total of 1788 propelled sea-going merchant vessels of 1000 GT and above , owned in the USA with 770 ships registered under the national flags, and 1010 under a foreign flag. The top foreign flags of registration are the Bahamas, Marshall Islands, Panama, Liberia and Hong Kong (Hong Kong SAR, China).

In January 2024, nineteen lawmakers from both houses of Congress sent a letter to President Biden, cautioning about severe repercussions if the United States fails to address the decline of its commercial maritime industry (Thompson, 2024) and concluded their letter with a rather grim perspective:

> *"America is—and will always be—a maritime nation. But after years of neglect, changing the trajectory of our shipbuilding and shipping industries is a task that will be measured in decades, not days, months, or years. We stand at an inflexion point. We must act now--before it is too late--to reinvigorate American and allied maritime power on the seas" (Congress of the United States, 2024).*

In 1960, the United States had a merchant fleet of nearly 3,000 oceangoing ships,

comprising nearly 17% of the entire world's merchant marine. By 1970, it had reduced by half in both absolute numbers and as a percentage of the world's fleet. By 1980, it had shrunk by another half and by 2019, the entire US merchant fleet of oceangoing cargo ships and tankers numbered only 182 (Harrison, 2023).

In a high-end conflict, readily available American vessel capacity would only meet 65% of sealift needs. The shortage extends to personnel as well, with a deficit of at least 1,900 mariners (McCown, 2023).

While the Jones Act remains essential to maintaining the domestic maritime industry of the United States, in international trade the industry continues to decline (McMahon, 2016). Existing government programmes, primarily cargo preference laws for government impelled cargoes and a limited subsidy programme have maintained a minimal presence for the U.S. fleet in international trade but, increasingly the programmes are recognised as insufficient as currently maintained (Giberga and Tab Thompson, 2015).

The Department for Transportation and the Maritime Administration conducted outreach activities with industry and the public from October 2013 through December 2019, which resulted in the development of four strategic goals in a Report to Congress (U.S. Department of Transportation, 2020):

- **Goal 1:** Strengthen U.S. Maritime Capabilities Essential to National Security and Economic Prosperity
- **Goal 2:** Ensure the Availability of a U.S. Maritime Workforce that Will Support the Sealift Resource Needs of the National Security Strategy
- **Goal 3:** Support Enhancement of U.S. Port Infrastructure and Performance
- **Goal 4:** Enable Maritime Industry Innovation in Information, Automation, Safety, Environmental Impact and Other Areas

The report also pointed out that the large U.S. flagged ocean-going vessels and their crews engaged in domestic trade, were primarily sustained by the Jones Act. Moreover, the Jones Act, the Maritime Security Program, and Cargo Preference are considered the three vital pillars that support U.S.-flag commercial sealift, ensuring the strength and resilience of the nation's maritime capabilities. These programmes are deemd to be key to maintaining a robust, secure, and reliable merchant fleet, essential for both national defense and economic stability. Together, they form the foundation for a competitive and sustainable U.S. maritime industry, ready to meet the challenges of the future (Center for Strategic and Budgetary Assessments, 2019; American Maritime Partnership, 2023; U.S. Department for Transportation, 2023).

To put the value of these programmes into perpective, a recent report by an independent defence commission warns that the U.S. faces its most severe global challenges since the Cold War, with worsening trends. It highlights China and Russia as key threats and recommends Congress to quickly approve additional funding to support long-term investment in national security and industrial development, including boosting shipbuilding capacity and developing a skilled digital and industrial workforce (Commission on the National Defense Strategy, 2024).

Moreover, the recent statement of Carl W. Bentzel before the U.S. Senate Committee on Commerce, Science, and Transportation further highlights significant challenges for

the U.S. shipping industry, such as China's dominance in maritime trade, security risks in critical shipping routes, and the transition to cleaner energy sources (Federal Maritime Commission, 2024).

Since the demise of the successful but expensive U.S. Operational Differential and Construction Differential subsidy programs over forty years ago, the U.S. fleet has steadily declined as a percentage of the international fleet. This roughly tracks the comparative growth FOC fleets. With less than 2% of its ocean-going foreign trade carried in U.S vessels and a declining seafarer labour pool, legislative efforts have attempted and are continuing to be made to address these economic and military vulnerabilities. In addition to a sixty-ship Maritime Security Programme, which provides a limited financial stipend to owners of qualified U.S. flag dry cargo vessels engaged in international trade, a similar ten-ship Tanker Security Programme was recently enacted (U.S. Department of Transportation Maritime Administration, 2021; U.S. Department of Transportation Maritime Administration, 2024).

While these limited subsidy programs have been life-lines, they are too limited in scope, encompassing a total of only 70 U.S. flag vessels. Major legislation is called for. Such legislation has recently been submitted to Congress to address the glaring weakness of the U.S merchant fleet. Called the "SHIPS for America Act" it would be a comprehensive programme supporting the U.S. flag in international trade, and encompassing maritime training and domestic shipbuilding. While this potential legislation indicates growing recognition of the need, action is, of course, required to turn the U.S. maritime industry around (Johnsen, 2025).

To conclude, substantial investment in the U.S. merchant fleet and its personnel is essential, ensuring the maritime industry remains resilient and capable of meeting modern challenges (American Maritime Partnership, 2017; Landrith, 2024).

4.1.3 Greece

The Greek-controlled fleet is the largest globally, accounting for about 16% of the world fleet in terms of deadweight tonnage. However, few of these vessels were registered under the Greek flag in 2024. Since 2005, the share of Greek-registered ships has declined, while other registries have grown (Panagiotou and Thanopoulou, 2019). According to UNCTAD (2024a), Greece has over 87 per cent of its fleet capacity registered under a foreign flag; 580 ships were reported flying the national flag in 2024, and 4,406 were registered with a foreign flag (Table 3, propelled seagoing vessels of 1,000 gross tons and above). The top flags of registration were the Bahamas, Cyprus, Liberia, Malta, the Marshall Islands and Panama, all flags of convenience.

According to the available data in English published by the Hellenic Statistical Authority (2018), on the enlisted Greek seafarers in merchant ships of 100 GRT and over, under Greek or foreign flag contracted with the Seamen's Pension Fund (NAT), the total number of enlisted Greek seafarers increased by 11.6%, in 2017 compared with 2016. The number of Greek seafarers enlisted on ships under Greek flag increased by 9.2% and on ships under the foreign flag contracted with NAT by 39.0% (Figure 16).

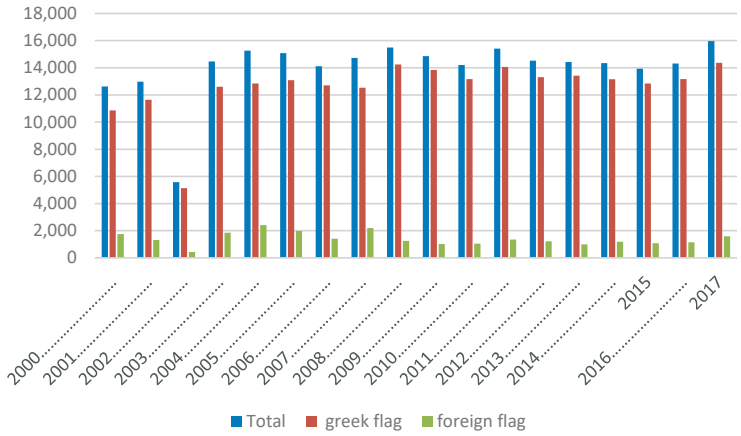

Figure 16 *Greek seafarers enlisted in Greek-owned merchant ships of 100 GRT and over, under Greek flag and foreign flag (adapted from Hellenic Statistical Authority, 2018)*

However, according to more recent research taking a broader view, the number of Greek seafarers has decreased over the past twenty years; from 2000 to 2020, the number of Greek seafarers employed in Greek-owned vessels reduced by 45% (18.450 in 2000 vs. 10.087 in 2020). This includes all vessels over 100 gross register tons (grt) flying the Greek flag or contracted with the Seaman's Pension Fund. The research also shows that over the past 42 years, the number of seafarers serving on Greek

Table 3 *Greece: fleet ownership by capacity in dead weight tons and flag of registration, as of 1 January 2024 (adapted from UNCTAD, 2024a)*

	Number of vessels			Deadweight tons				
Country of Ownership	National flag	Foreign flag	Total	National flag	Foreign flag	Total	Foreign flag as a percentage of the total	Total as a percentage of world dead weight
Greece	580	4406	4992	49985667	344971148	394977181	87.3	16.9

ships has decreased by nearly 81% from 1978 to 2020, and most of the Greek seafarers are employed in passenger and shortsea shipping vessels, while deep-sea shipping covers its needs for crewmembers of lower ranks with foreigners (Katsounis *et al*., 2023). In response to growing concerns about the lack of well-trained maritime professionals in the shipping industry, Greece even designated 2024 as the year of "Naval Education" (Glass, 2023).

In response to the trend of shipowners choosing to flag out, traditional maritime nations such as Greece have adopted taxation systems similar to those of flags of convenience to attract or retain their national fleets. Today, the tonnage tax system is the primary method for taxing shipping activities, particularly ocean-going ones. The case of Greece is particularly interesting as it pioneered the tonnage tax system in the 1950s and revamped it in the 1970s to level the playing field and reduce flagging out (Panagiotou and Thanopoulou, 2019).

The Greek tonnage tax system, as is common with most such systems in Europe at least, levies taxes based on a vessel's gross tonnage rather than its operating profits. It applies to Greek or foreign ship-owning companies with vessels under the Greek flag, and foreign ship-owning companies with vessels under a foreign flag, provided they have a ship management company in Greece meeting specific criteria. It is understood that this model, also adopted by Cyprus and Malta with slight calculation differences, covers all vessels and shipping activities. Additionally, profit distributions to holding companies and owners are tax-exempt (PWC, 2015; OECD, 2020). As of 1 January 2020, the application of the tonnage tax system is extended beyond ship-owning companies and their shareholders and partners, also to bareboat charterers and lessees in case of ship leasing arrangements, and their shareholders and partners up to the level of Ultimate Beneficial Owners (PWC, 2024).

According to Panagiotou and Thanopoulou (2019), the Greek tonnage tax system became less competitive during the 2008 financial and economic crisis due to lower corporate tax rates in countries like the UK and the Netherlands. The authors explain that this has put Greek shipping companies at a disadvantage compared to those under other tonnage tax systems and that additionally, the Greek tax system, based on gross tonnage, penalizes vessels like LNG carriers with high gross-to-net tonnage ratios.

However, due to the ease of relocation and competitive fiscal incentives in rival shipping centres, Merika, Triantafyllou and Zombanakis (2019) advance that the Greek tonnage tax system should remain unchanged and serve as a model to enhance the competitiveness of the EU fleet.

Maintaining and refining this system seems vital for Greece to remain a global leader in shipping (UNCTAD, 2024a). Considering the mobility of the shipping industry and the compelling fiscal advantages provided by flags of convenience, it appears that the Greek shipping tax system is under pressure to continually evolve and maintain its competitiveness. The objective seems to go beyond simply retaining Greek-controlled vessels under the national flag, aiming now to strengthen the broader maritime cluster and trying to solidify Greece's position as a global leader in the shipping industry. Although Greece boasts high ship ownership, its economic impact appears somewhat limited. It is likely the presence of major ports, rather than ownership, that drives much of the maritime activity and demand for maritime services (ITF/OECD, 2019; FEPORT, 2025).

One might question whether this constant competition to maintain tax advantages and remain competitive can potentially have long-term detrimental effects on national interests (Mooij, Klemm and Perry, 2021). It may also fall short in strengthening maritime security and resilience, both of which are critical for ensuring stability during wars, emergencies and crises.

4.1.4 Norway

According to the historical research carried out by Tenold (2019), the Norwegian fleet experienced significant fluctuations in the 20th century. After massive losses during World War II, pre-war tonnage levels were restored by 1949. The fleet then doubled in size during the 1950s and again in the 1960s, before suffering a dramatic 75% decline during the shipping crises of the 1970s and 1980s.

In particular, the shipping crisis in the 1980s led to a sharp decline in the Norwegian fleet and saw cost-efficiency strategies including the flagging-out of vessels to low-tax countries, using flags of convenience, and employing seamen from low-wage nations. Additionally, competitive pressures further drove mergers, acquisitions, and the formation of global alliances in sectors like container carriers (Benito *et al*., 2003).

In parallel, the Norwegian maritime workforce has declined over time, particularly in the number of Norwegian seafarers employed on ships. The number of Norwegian seafarers fell significantly from the 1960s to the 1980s. Rationalization, economies of scale, and the sale of ships flagged to other countries contributed to this reduction. By 2000 there was a partial recovery with approximately 15,000 Norwegian seafarers on Norwegian Ordinary Register (NOR) vessels and an additional 4,000 on Norwegian International Ship Register (NIS) vessels, this was still below earlier levels (Tenold, 2019). In 2018, the Norwegian Ordinary Register counted 15,417 Norwegian seafarers, and the Norwegian International Ship Register 2,124, as shown in Table 4 (Norwegian Maritime Authority, 2019).

A policy shift in the late 1980s sought to revitalise the Norwegian merchant marine, reversing the general declining trend. The shipping crisis of the 1980s prompted the creation of the Norwegian International Ship Register (NIS) as a "flag of necessity." Key elements of NIS include allowing foreign crews on Norwegian ships to operate outside domestic routes, which helped retain Norway's shipping industry and its associated maritime cluster (Norwegian Maritime Authority, 2021).

Table 4 *Number of Norwegian seafarers by register, from 2016 to 2018 (Norwegian Maritime Authority, 2019)*

	2016	2017	2018
NIS	1 777	1 910	2 124
NOR	15 778	15 300	15 417
Foreign flag	3 123	2 541	2 600
Total	**20 678**	**19 751**	**20 141**

The Norwegian International Ship Register (NIS) was established on July 1, 1987. Its creation aimed to address the challenges faced by Norwegian shipping in maintaining competitiveness in a global market dominated by low-cost flags of convenience. Norwegian shipping struggled to compete with international competitors who had lower operational costs due to cheaper labour and fewer regulatory constraints. The NIS also allowed Norwegian-flagged ships to employ lower-cost foreign seafarers, reducing operational costs while maintaining a connection to Norway. The register further aimed to reduce bureaucratic red tape and establish a competitive alternative to flags of convenience, thereby encouraging ships to remain under the Norwegian flag (Norwegian Maritime Authority, 2025).

This initiative, combined with liberalized labour requirements and operational flexibility, is considered to have played a critical role in revitalizing Norway's shipping

industry during a period of severe financial and operational challenges (Shippingwatch, 2024; Sperton, 2024). The NIS is considered to have been instrumental in sustaining and growing Norway's maritime industry. NIS is deemed to have significantly boosted the Norwegian fleet's global share within a few years, reversing the decline caused by the shipping crisis, and it preserved the Norwegian maritime industry, including shipowners, equipment manufacturers, legal services, and other maritime stakeholders (Norwegian Maritime Authority, 2021).

In 2023, there was a total of 1591 vessels in the Norwegian Merchant Fleet with a combined gross tonnage of 18.8 million tonnes. This represents about 1.5% of the global fleet's vessel count and less than 1% of its total DWT. As illustrated in Figure 17, the NIS register contains 691 vessels with a gross tonnage of 16.7 million tonnes. The NOR register focuses on domestic operations with 900 vessels and a gross tonnage of 2.1 million tonnes (Statistics Norway, 2024). The Norwegian flag appears to be attractive for shipowners in the foreign-going fleet, with steady growth over the last few years (Norwegian Shipowners' Association, 2024).

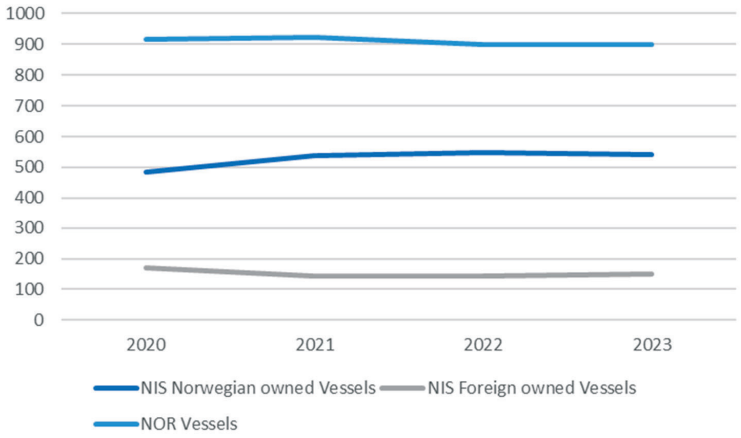

Figure 17 *Number of vessels in the Norwegian merchant fleet by register, ownership and year (adapted from Statistics Norway, 2024)*

Yet, there is a reliance on foreign labour aboard Norwegian vessels, and most positions on NIS-registered ships are now held by foreigners, with employment practices being outsourced to international management companies.

As shown in Table 5, economic pressures have led shipowners to flag vessels in foreign countries and hire lower-cost seafarers from places like the Philippines and China, and by 2009 the Norwegian-owned fleet grew increasingly reliant on foreign labour (Sætra, 2015).

It has been reported in 2024 that in 17 months, 132 Russian and Chinese captains were approved to command Norwegian-flagged ships, which has raised security concerns within Norway (Johnsen, 2024b; NTNU Nyheter, 2025). In response to these concerns, the Norwegian Maritime Authority announced that effective from 18 November 2024, exemptions will no longer be granted for Russian nationals serving as masters on NIS-registered ships (Norwegian Maritime Authority, 2024).

It is argued that in case of conflict, ships registered in or operated by crew from nations opposing Norway could be denied access to Norwegian ports, heightening the

Table 5 *Crew composition aboard Norwegian merchant ships in foreign trade, 1953–2009 (adapted from Sætra, 2015)*

	1953	1967	1973	1982	1988	1995	2002	2005	2009
(a)									
Foreign	4780	15215	8213	6604	8070	15918	23400	15360	12970
Norwegian	32600	39970	26408	19870	8579	9197	12480	10175	9225
Total	37380	55185	34563	26474	16649	25115	35880	25535	22195
% Foreign	13	15	24	25	48	63	58	60	58
(b)									
Foreign						42000	43750	37460	42880
Norwegian						13000	14660	12265	10370
Total						55000	58410	49725	53250
% Foreign						76	75	75	81

(a) Norwegian ships in Norwegian registers, 1953-2009

(b) Norwegian-owned ships in Norwegian and foreign registers, 1995-2009

reliance on NATO-flagged vessels with NATO crews. This underscores critical concerns about the availability of sufficient qualified seafarers when they are most needed. The Norwegian Seafarers' Union is urging the government to take swift action and develop a comprehensive crewing strategy (Angell and Pettersen, 2024).

Further, the changes in the Norwegian fleet together with the erosion of maritime culture, characterized by fewer Norwegians gaining direct sea experience, is highlighted as a critical concern for the long-term sustainability of Norwegian maritime expertise and competitiveness (Nærings- og fiskeridepartementet, 2021).

5. Implications

The findings suggest that there is a concerning overall decline in the number of qualified merchant seafarers and national-flagged merchant vessels within NATO member nations. This decline can represent a significant threat to national security and resilience, as it can compromise the ability to sustain strategic military logistics and secure essential supply chains during conflicts, crises or emergencies.

Further, shipowners, primarily located in developed countries, tend to use flags of convenience. The fragmented nature of ownership and registration undermines maritime security. Weak enforcement of the genuine link dilutes flag-state responsibilities and regulatory authority in general, allowing maritime crimes to flourish (Tache, 1982; Kuznietsov, 2021).

Amid these conditions, economic incentives and subsidies to the shipping industry as illustrated in the case studies and which should support national flags and domestic seafarer employment appear to have had limited success, at best stemming steeper declines but hardly fostering growth as intended.

Subsidies and incentives are primarily reactive to global competition, particularly from flags of convenience and incentives in other developed countries. In this context, any incentives or subsidies should be predicated on a more strategic approach and the delivery of the agreed outcomes in the national interest and provide value for money for the taxpayer.

5.1 Reduced Logistical Support and Rising Operational Complexities

The shrinking NATO merchant fleet poses significant challenges to both NATO's military capabilities and the broader NATO-based shipping industry.

The shrinking merchant fleet can impair NATO's ability to support military logistics and secure essential supply chains during conflicts, crises and emergencies. The impact also extends beyond military logistics, affecting the shipping industry's ability to secure protection. As NATO's combined merchant fleet diminishes, the alliance's capacity to protect NATO-owned vessels registered under other flags during wartime potentially decreases.

Reduced logistical support: Risk of Losing Military Protection

Without proactive measures, NATO-owned but foreign-registered merchant ships and their crews face significant risks in wartime or emergency scenarios. These risks can include operational restrictions, logistical challenges, and the potential loss of military support, all of which could jeopardize both commercial and strategic maritime operations.

Without registration in a NATO country, these vessels owned in NATO countries but not registered in NATO allies may be excluded from military protection provided by NATO and its allies. This lack of security increases the vulnerability of both the crew and the vessels, leaving them exposed to adversarial actions and potentially cutting off critical maritime operations.

The rise of private maritime security companies tasked to ensure the security of merchant vessels, especially in piracy-prone areas, already highlights a shift in how maritime security is managed. These companies are primarily hired by the maritime industry rather than the States (Stockbruegger, 2021).

Closed Ports: Restrictions on Foreign Crews

In wartime or emergencies, ports in NATO countries would likely restrict entry to vessels with crew members from adversarial nations, such as Russia or its supporters, regardless of the ship's flag. This policy would aim at preventing security threats, including concerns about the loyalty and dependability of crews (Tate, 1987), but could disrupt NATO maritime operations, especially if NATO-owned ships rely on international crews.

Denied Sailing: Removal of Adversarial Crew Members

The reduced number of available NATO merchant vessel officers poses challenges for manning ships during various contingencies and emergencies (Tate, 1987). Ships with crew members from adversarial nations face additional risks if war breaks out. Such individuals would need to be immediately disembarked to avoid compromising the vessel's security. Failure to comply could result in the ship being denied permission to sail, effectively grounding a vital maritime asset and disrupting supply chains or strategic missions.

Tight Timelines: Airspace Closures and Crew Changes

In the event of a crisis, civil airspace may be partially or fully closed, complicating the logistics of replacing international crews.

The world already witnessed how the crew change crisis caused by COVID-19 restrictions severely impacted the sustainable development of the maritime supply chain and the world's trade in goods (Han *et al*., 2023).

This makes it imperative to plan for crew changes well in advance of escalating tensions, as last-minute adjustments may be logistically impossible under wartime restrictions.

Reduced Resilience: Supply Chain Vulnerabilities

A smaller merchant fleet can limit NATO's ability to respond to and recover from disruptions in global supply chains, which are considered critical to national security (Benson and Alvarez-Aragones, 2024).

NATO Member States' can be at an increased risk of supply disruptions for critical goods like food, energy and medical supplies in the event of a conflict (Samoškaitė, 2024).

The securitisation of supply chains has pushed NATO allies to reconsider what constitutes an existential risk, with economic dependencies now seen as potential security threats (Benson and Alvarez-Aragones, 2024).

The outlined risks highlight the need for NATO to develop a comprehensive strategy to secure its merchant navy/mercantile marine fleet during wartime. This includes ensuring NATO merchant ships are adequately manned, prioritizing NATO registration for military protection, and implementing measures to address the geopolitical risks posed by adversarial crews and foreign-registered ships, especially FOCs.

Creating a robust and actionable plan to ensure the NATO merchant fleet remains operational during crises or war is therefore crucial. This involves identifying and addressing potential vulnerabilities in crew availability, ensuring compliance with maritime security protocols, and maintaining logistical readiness for rapid mobilization[23]. Such planning is critical to safeguarding NATO Member States' maritime assets and their strategic role in national security.

[23] Johnsen, G. (2024a). Blir Det krig, Kan Norske Skip Stå ubeskyttet: – Rederne Må Sette Landets Sikkerhet først! Aftenposten.no. Available at: www.aftenposten.no/verden/i/pPlL3W/blir-det-krig-kan-norske-skip-staa-ubeskyttet-rederne-maa-sette-landets-sikkerhet-foerst [Accessed 28 Dec. 2024]. See the reported insights from the Norwegian Seafarers' Union.

5.2 Dependence on Foreign-Flagged Vessels: A Risk to Maritime Sovereignty

The vast ocean geography and overlapping jurisdictions ordinarily present significant challenges to effective surveillance and enforcement (Boyer, 2007).

These issues are exacerbated by the proliferation of flags of convenience, which obscure vessel ownership and accountability, and necessitates robust multinational cooperation frameworks.

However, this dependence on multilateral solutions through regional and international cooperation often calls for compromises, reducing unilateral control over maritime governance (Panebianco, 2010).

To make the situation more complicated, the rise of fraudulent ship registration which involves illicitly registering vessels without the authorization or knowledge of the purported flag state's maritime administration, undermines maritime safety, security, environmental protection, and the well-being of seafarers, posing risks like abandonment (UNCTAD, 2024b).

The seizure of the Eagle S, accused of severing undersea cables between Finland and Estonia, underscores long-standing concerns about the Flags of Convenience system. The ship, reflagged under the Cook Islands and linked to Russia's "Dark Fleet," serves as a case study of the vulnerabilities inherent in FOC practices and has exposed:

- **Opaque Ownership:** FOC enable vessels to hide their true ownership, as seen with the Eagle S.
- **Hybrid Warfare:** The ship is allegedly involved in Russian sabotage operations targeting NATO and EU infrastructure, demonstrating how FOC can facilitate security threats.
- **Evasion of Oversight:** Frequent changes in classification societies allow aging, poorly maintained ships to bypass scrutiny and continue operations.

The incident highlights the systemic risks posed by FOC, impacting not only seafarers' rights and maritime safety but also global security. The case reinforces the urgent need for reform in the FOC system.

Fostering information sharing and cooperation across military, civilian and private sectors to tackle maritime security threats and be "ready to fight tonight" isn't enough. A future resilient direction must include an active maritime domain consciousness and international efforts to build a cohesive maritime strategy that should tackle the issue of FOC (European Economic and Social Committee, 2025).

5.3 Maritime Subsidies: Addressing Ineffectiveness and Strategic Misalignments

The NATO shipping sector receives subsidies, tax breaks and other forms of financial support from governments, with the objective of boosting national shipping employment and reducing flagging out. Maritime support can include direct subsidies (grants for ship operations or training programs), tax expenditures (tonnage taxes, fuel tax exemptions, and labour-related deductions) or risk transfers such as State-backed loans and guarantees to shipping companies (ITF/OECD, 2019).

While maritime subsidies remain vital for the sector's competitiveness, their current structure as it pertains to EU nations where citizen seafarer and ownership requirements are limited at best often fails to deliver tangible benefits. Studies find limited evidence that EU subsidies achieve their goals, such as retaining local flags and seafarer employment (ITF/OECD, 2019). State aid at the European level, for instance, is not effectively linked to employment benefits, often supporting ships that do not hire EU seafarers (ITF/OECD, 2023).

> *"Impact studies do not find much evidence of the effectiveness of maritime subsidies in achieving their stated aims. Local flags and seafarer employment within the EU have declined." (ITF/OECD, 2019:6).*

The findings of the case studies presented in Chapter 4 suggest that while maritime incentives, subsidies and other policies designed to support national shipping industries have had some positive impact, particularly in the USA where they are tied to citizen-seafarer requirements, ultimately they have failed to fundamentally address the competitiveness of national shipping with national seafarers against global competition, and have thus not consistently achieved their intended objectives of significantly increasing the number of vessels under national flags or boosting employment among national seafarers.

This highlights the need to reassess existing support or subsidy frameworks to ensure they effectively address the challenges confronting the maritime sectors in Greece, Norway, and other nations. It also calls for the need to scrutinise the value of the FOC system that undermines national flags and NATO security. Given the increasing complexity of maritime security concerns, including geopolitical tensions, a strategic overhaul of these frameworks is essential. This cannot be accomplished without concomitant human and financial commitment. Coupled with strong accountability mechanisms, such measures could enhance the effectiveness of maritime subsidies, ensuring they not only support economic and operational goals but also bolster resilience against evolving security risks, aligning with broader societal objectives (ITF/OECD, 2019).

6. Conclusions and Recommendations

The shrinking of the NATO merchant fleet is mainly a result of ship registration practices and the preferences of shipowners, which favours flag of convenience registration. This not only reduces the number of vessels under the effective control of NATO member countries but also impact the availability and security of NATO seafarers.

There is a general reliance on foreign-flagged ships and the proliferation of flags of convenience have weakened national flags and ship registers of NATO Member States', and could hinder the alliance's ability to respond effectively in emergencies, affecting security and operational readiness. Shipowners favouring flag of convenience registration can be characterised as opportunistic and detached from national allegiances. They prioritise profit over loyalty or patriotism, treating flags as interchangeable commodities, selecting whichever country offers the most convenient terms regardless of the genuine link or connection.

There needs to be a coordinated effort among NATO Member States' to invest in maritime capabilities, strengthen national merchant fleets, support maritime professionals and end the incentives to shipowners to continue to use flags of convenience, including address the exploitation of foreign crews.

6.1 Policy Inconsistencies and Strategic Resilience: A Path Forward

The findings in Chapters 3 and 4 show that policies often fail to align with national employment objectives for which State aid is provided. With the exception of the USA, State aid is not effectively linked to employment benefits, often supporting companies that do not hire national seafarers whereas maintaining the availability of maritime skills to a nation is crucial for economic safety, resilience and security reasons. National and regional maritime clusters benefit from skilled seafarers, who also contribute to a huge range of related industries like marine leisure, shipbuilding, marine equipment manufacturing, etc.

Policy Reforms are therefore urgently needed. State aid must be linked directly to national policy needs such as national flag growth, employment outcomes and require at the very least a minimum share of national seafarers on subsidized ships. Policies which ensure the availability of skilled seafarers, including support for education and training, should be enhanced in return for State aid.

State aid eligibility should also be restricted to vessels under national registries, and excluding those flagged under flag of convenience registries.

Given this, Nautilus International and the International Organization of Masters, Mates and Pilots call for a coordinated governance framework to ensure the sustainability of NATO Member States' mercantile marine fleets and maritime employment and competitiveness. Addressing inconsistencies in policies and strengthening the link between governance and employment outcomes is crucial to improving the merchant shipping sector's resilience and strategic capacity.

6.2 Revisiting the Genuine Link: Enhancing Maritime Security through Stronger Governance Policies

In today's interconnected world, Flags of Convenience pose significant threats to maritime security and national resilience. By prioritizing ease of registration and economic gain over effective control, FOCs undermine accountability, facilitate illegal activities, and weaken environmental and labour protections.

It's time to reaffirm the genuine link: the principle that a ship should have a meaningful connection to the flag state it represents and under whose laws it seeks protection. Ensuring alignment with the UN Convention on the Law of the Sea and customary international law through the promotion of a robust genuine link is a necessary step to ensure that ships comply with international regulations, that their operations are transparent, and that their flag States fulfil their legal and ethical responsibilities.

It is important that the international community recognises the severity of this issue and actively works to not only combat fraudulent ship registrations but FOCs in general. Efforts can include revisiting the UN Convention on the Registration of Ships to enhance transparency, stronger governance and prevent exploitation.

Addressing the problem of poor governance and weak oversight requires coordinated efforts from flag States, port States, and industry stakeholders including the social partners to ensure the integrity of ship registration processes, close the gaps that FOCs exploit, hold shipowners accountable and uphold maritime safety and security standards.

Moreover, the fragmentation in ship ownership and ship registration poses challenges to the collection of accurate and comprehensive data, which in turn hampers the development and implementation of informed policies. The maritime industry relies on trust, security, and sustainability. Strengthening the genuine link is not just about compliance and good governance; it's about safeguarding our oceans, economies, and the people who depend on them.

6.3 Building a Secure and Resilient Maritime Sector: Key Recommendations for NATO Members

The shrinking NATO merchant fleet, primarily due to ship registration practices, poses significant challenges to NATO's operational readiness and maritime security. To address these issues and strengthen the alliance's maritime capabilities, both from a fleet and skills perspective, the following general recommendations focused on fleet competitiveness, workforce development and overall sustainability are proposed:

1. **Policy Reforms and Coordinated Governance**

- Enhance targeted State aid to incentivise shipowners to support national policy objectives that aim to grow the national fleet and national maritime skills base.
- Link all State aid directly to training and employment outcomes i.e. requiring a minimum share of national seafarers on ships enrolled in support schemes.
- Enhance support for maritime education and training to ensure a skilled workforce, e.g. 100% of the costs of training seafarers to be provided.
- Restrict State aid eligibility to vessels under national (first) registries, excluding those registered in countries designated as flags of convenience.
- Develop a coordinated governance framework among NATO Member States' to ensure sustainable maritime employment and competitiveness.
- Require the use of NATO-flagged vessels in existing trade agreements and ongoing negotiations amongst NATO Member States', in accordance with the security exceptions of Article XXI of the GATT Agreement.

2. **Strengthening the Genuine Link and Responsibilities of a Flag State**

- Reaffirm and enforce the principle of a genuine link between ships and their flag states, aligning with Article 91 of the UN Convention on the Law of the Sea.
- Reaffirm and enforce the principle of the duties of a flag State, aligning with Article 94 of the UN Convention on the Law of the Sea.

- Review the UN Convention on conditions for Registration of Ships (1986), with a view to promoting ratification and enforcement of its requirements.
- Implement coordinated efforts among flag States, port States, and industry stakeholders including social partners to close gaps exploited by flags of convenience.

3. **Investment in Maritime Capabilities**

- Increase investment in national merchant marines and national maritime professionals.
- Boost the number of qualified national seafarers and national-flagged vessels.
- Develop strategies to retain and attract talent in the maritime sector.

4. **Enhancing Data Collection and Analysis**

- Improve data collection methods to address fragmentation in ship ownership and registration.
- Use comprehensive data to develop informed policies and strategies for the maritime sector.

5. **Strengthening NATO's Maritime Resilience**

- Develop contingency plans to overcome the reliance on foreign-flagged ships/flags of convenience for military logistics and supply chains.
- Enhance cooperation among NATO Member States' to pool maritime resources and capabilities with due regard for the sovereignty of all States.

By implementing these recommendations, NATO can work towards reversing the decline in the combined mercantile marine capabilities of its members, ensuring a more secure and resilient maritime sector that can effectively support the alliance's strategic objectives.

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Appendix 1 Supplementary Data

Table 6 *Monthly crude oil prices (US$ per barrel) during the 2021 Suez Canal grounding and the 2023-2024 Red Sea crisis (WTO, 2024)[24].*

	Crude Oil Prices: Brent – Europe	
	March 2021 Suez Canal grounding	***2023-2024 Red Sea crisis***
-6	*41*	*75*
-5	*40*	*75*
-4	*43*	*80*
-3	*50*	*86*
-2	*55*	*94*
-1	*62*	*91*
0	*65*	*83*
1	*65*	*78*
2	*69*	*80*
3	*73*	*83*

[24] Note: Month zero corresponds to March 2021 for the 2021 Suez Canal obstruction and to November 2023 for the first attack on commercial ships.

Table 7 *World fleet registered trading vessels of 100 gross tons and over, deadweight tonnage on selected registers: 1999 to 2022 (UK Department for Transport, 2024)*

Country	**2009 [b]**	**2015**	**2020**	**2023**
World Total *[note 3]*	1.242	1.725	2.033	2.224
European Union *[note 4, 6]*	268	320	340	295
EU15 *[note 5, 6]*	179	190	189	162

[b] is used to show changes in data source and methodologies.

Note 3
Includes 'unknown' registered flags.

Note 4, 6
Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom and EU includes Overseas Territories.

United Kingdom excluded from EU totals from 2021.

EU15
countries and European Union for 27 countries.

Note 5 Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom and EU includes Overseas Territories.

Table 8 *World fleet registered trading vessels of 100 gross tons and over, deadweight tonnage on selected registers: 1999 to 2022 (note 1,2) (UK Department for Transport, 2024)*

Country	2009 [b]	2023
United Kingdom	17	10
Crown Dependencies	16	19
Cyprus	31	30
Denmark	13	25
France	8	9
Germany	18	7
Greece	68	56
Italy	17	7
Malta	56	101
Netherlands	8	6
Portugal [note 7]	1	29
Spain	2	2
Sweden	2	1
Antigua and Barbuda	13	6
Bahamas	59	58
Bermuda	9	6
Brazil	3	5
Cambodia	2	[low]
Canada	3	3
Cayman Islands	4	6
China	43	100
Hong Kong	74	200
India	14	17
Indonesia	9	28
Iran	1	21
Japan	17	42
Korea, South	20	21
Kuwait	4	5
Liberia	141	400
Malaysia	9	6
Marshall Islands	76	300
Norway	20	20
Panama	286	370
Philippines	7	6
Russia	6	10
Saudi Arabia [note 7]	2	14

Table 9 *Largest ship registers by DWT (adapted from Statista, 2023)*

Country of registration	Capacity	Share of the global total in percent
Panama	350,4	15,9
Liberia	335,1	15,2
Marshall Islands	298,8	13,2
Hong Kong	207,8	9,5
Singapore	131,4	6
China	115	5,2
Malta	114,9	5,2
Bahamas	73	3,3

Table 10 *Number of seafarers in NATO countries (adapted from UNCTAD, 2021)*

Countries	Officers	Ratings	Total
World	857544	1035181	1892725
Albania	307	529	836
Belgium	3394	1586	4980
Bulgaria	14168	8594	22762
Canada	4168	7484	11652
Croatia	14291	6204	20495
Czechia	38	0	38
Denmark	7341	18818	26159
Estonia	2553	1945	4498
Finland	4837	5174	10011
France	13495	2419	15914
Germany	6990	5244	12234
Greece	27074	3433	30507
Hungary	40	0	40
Iceland	227	10	237
Italy	3104	497	3601
Latvia	5519	2569	8088
Lithuania	2079	1026	3105
Luxembourg	1078	1913	2991
Montenegro	224	425	649
Netherlands	9667	0	9667
North Macedonia			
Norway	16366	6521	22887
Poland	24070	7152	31222
Portugal	715	523	1238
Romania	13149	4559	17708
Slovakia	85	27	112
Slovenia	374	0	374
Spain	12355	12132	24487
Sweden	5922	6605	12527
Türkiye	10551	18036	28587
UK	24708	9035	33743
USA	20442	3781	59586

Table 11 *UK-owned and registered ships (trading) 500 gt and above, 1975 to 2000 (NUMAST, 2000)*

Year	Number
1975	1164
1980	1143
1985	586
1990	310
1995	251
2000	260

Table 12 *Number of all British seafarers (Officers and Ratings) and all British Officers employed on UK registered ships (based on data from NUMAST, 2000).*

Year	Seafarers	Officers
1975	73400	34800
1980	57923	28158
1985	34513	14628
1990	19606	8628
1995	17240	7724
2000	9308	6358

(projected numbers for 2000)

Table 13 *UK registered trading vessels of 100 gross tons and over: 1999 to 2023 (UK Department for Transport, 2024)* [25]

End year	Metric	United Kingdom fleet
1999	Number of vessels	379
2000	Number of vessels	417
2001	Number of vessels	427
2002	Number of vessels	497
2003	Number of vessels	587
2004	Number of vessels	597
2005	Number of vessels	608
2006	Number of vessels	629
2007	Number of vessels	646
2008	Number of vessels	675
2009	Number of vessels	701
2009 [b]	Number of vessels	712
2010	Number of vessels	664
2011	Number of vessels	643
2012	Number of vessels	577
2013	Number of vessels	500
2014	Number of vessels	453
2015	Number of vessels	457
2016	Number of vessels	452
2017	Number of vessels	441
2018	Number of vessels	429
2019	Number of vessels	349
2020	Number of vessels	328
2021	Number of vessels	316
2022 [b]	Number of vessels	281
2023	Number of vessels	311

[b] is used to show changes in data source and methodologies.

[25] From 2022 data was supplied by Sea/ (www.sea.live) while previous years are based on data provided by IHS. DfT conducted sensitivity checks between the two data sources and gross tonnage were comparable, however, comparisons between 2022 and previous years should be used with caution.

Table 14 *United Kingdom and Crown Dependency registered trading vessels of 500 gross tons and over: 1950 to 2023 (UK Department for Transport, 2024)* [26]

Year	Total number of vessels
1950	**3.092**
1951	**3.056**
1952	**3.014**
1953	**3.016**
1954	**3.041**
1955	**3.041**
1956	**3.041**
1957	**3.031**
1958	**3.007**
1959	**2.950**
1960	**2.902**
1961	**2.808**
1962	**2.689**
1963	**2.538**
1964	**2.473**
1965	**2.401**
1966	**2.319**
1967	**2.181**
1968	**2.058**
1969	**2.002**
1970	**1.977**
1971	**1.875**
1972	**1.798**
1973	**1.776**
1974	**1.767**
1975	**1.682**
1976	**1.573**
1977	**1.545**
1978	**1.421**
1979	**1.305**
1980	**1.275**
1981	**1.118**
1982	**985**
1983	**866**
1984	**777**
1985	**693**
1986	**545**
1986 [b]	**546**
1987	**506**
1988	**482**
1989	**450**
1990	**427**
1991	**409**
1992	**363**
1993	**344**
1994	**360**
1995	**365**
1996	**377**
1997	**392**
1998	**416**
1999	**421**
2000	**471**
2001	**534**
2002	**610**
2003	**723**
2004	**754**
2005	**795**
2006	**814**
2007	**816**
2008	**842**
2009	**880**
2009 [b]	**884**
2010	**861**
2011	**871**
2012	**825**
2013	**758**
2014	**708**
2015	**689**
2016	**699**
2017	**715**
2018	**693**
2019	**583**
2020	**532**
2021	**496**
2022 [b]	**477**
2023	**458**

[b] is used to show changes in data source and methodologies.

[26] From 2022 data was supplied by Sea/ (www.sea.live) while previous years are based on data provided by IHS. DfT conducted sensitivity checks between the two data sources and gross tonnage were comparable, however, comparisons between 2022 and previous years should be used with caution.

Table 15 *United Kingdom and Crown Dependency registered trading vessels of 500 gross tons and over: from 1950 to 2023. Gross tonnage in thousand tonnes (Department for Transport, 2024 [27]).*

Year	Total gross tons
1950	**17.198**
1951	**17.196**
1952	**17.264**
1953	**17.467**
1954	**18.016**
1955	**18.208**
1956	**18.484**
1957	**18.833**
1958	**19.245**
1959	**19.805**
1960	**20.202**
1961	**20.497**
1962	**20.554**
1963	**20.396**
1964	**20.428**
1965	**20.382**
1966	**20.522**
1967	**20.375**
1968	**20.730**
1969	**22.274**
1970	**24.061**
1971	**25.177**
1972	**26.940**
1973	**29.106**
1974	**30.795**
1975	**31.489**
1976	**29.839**
1977	**30.061**
1978	**28.078**
1979	**25.232**
1980	**25.769**
1981	**22.117**
1982	**19.233**
1983	**15.894**
1984	**14.312**
1985	**12.208**
11986	**7.711**
1986 [b]	**8.046**
1987	**7.059**
1988	**6.603**
1989	**6.025**
1990	**5.512**
1991	**4.963**
1992	**4.831**
1993	**4.670**
1994	**5.488**
1995	**5.761**
1996	**6.057**
1997	**7.108**
1998	**7.048**
1999	**7.436**
2000	**9.521**
2001	**10.653**
2002	**12.497**
2003	**15.982**
2004	**16.902**
2005	**18.801**
2006	**19.753**
2007	**20.603**
2008	**22.673**
2009	**25.814**
2009 [b]	**25.813**
2010	**27.284**
2011	**29.328**
2012	**29.940**
2013	**28.742**
2014	**26.966**
2015	**27.043**
2016	**28.821**
2017	**30.532**
2018	**30.524**
2019	**23.368**
2020	**21.628**
2021	**20.964**
2022 [b]	**20.749**
2023	**20.358**

[b] is used to show changes in data source and methodologies.

[27] From 2022 data was supplied by Sea/ (www.sea.live) while previous years are based on data provided by IHS. DfT conducted sensitivity checks between the two data sources and gross tonnage were comparable, however, comparisons between 2022 and previous years should be used with caution (Department for Transport 2024).

Table 16 *Seafarers active at sea by nationality group, UK Chamber of Shipping member companies: 2012 to 2023 (adapted from Department for Transport, 2024).*

Nationality grouping [note 6] [28]	**2012**	**2015**	**2020**	**2023**
UK	18.360	17.540	18.150	17.540
EEA [note 10] [29]	11.510	10.900	14.830	13.670
Non EEA [note 10]	41.460	51.640	56.540	113.730
Unknown	4.430	3.800	2.020	3.760
All seafarers active at sea	**75.760**	**83.880**	**91.540**	**148.700**

Table 17 *Number of Greek seamen enlisted in Greek-owned merchant ships of 100 GRT and over,under Greek flag (Hellenic Statistical Authority, 2018)*

	Total	**greek flag**	**foreign flag**
2000	**12.624**	10.868	1.756
2001	**12.978**	11.653	1.325
2002	**5.583**	5.137	446
2003	**14.459**	12.606	1.853
2004	**15.255**	12.839	2.416
2005	**15.078**	13.093	1.985
2006	**14.113**	12.701	1.412
2007	**14.729**	12.527	2.202
2008	**15.495**	14.239	1.256
2009	**14.862**	13.839	1.023
2010	**14.207**	13.163	1.044
2011	**15.410**	14.059	1.351
2012	**14.527**	13.308	1.219
2013	**14.419**	13.421	998
2014	**14.341**	13.153	1.188
2015	**13.927**	12.838	1.089
2016	**14.313**	13.161	1.152
2017	**15.968**	14.367	1.601

[28] The European Economic Area (EEA) includes the EU, Norway, Iceland and Liechtenstein. These figures are based on the current (2019) composition of the EEA for all years. Unknown nationalities are excluded.

[29] An adjustment was made for a large proportion of missing EEA and Non-EEA Ratings in 2021 so comparisons should be reated with caution.

Table 18 *United States Flag Privately-Owned Jones Act – Eligible Merchant Fleet, 2000 – 2019 Oceangoing Self-Propelled, Cargo-Carrying Vessels of 1,000 Gross Tons and Above (adapted from U.S. Department for Transportation, Maritime Administration, 2019).*

Year	Total		
	#	GT	DWT
2019	99	3.452	4.845
2018	100	3.476	4.973
2017	97	3.386	4.762
2016	92	3.272	4.577
2015	89	1.312	4.306
2014	90	3.084	4.226
2013	92	3.126	4.240
2012	92	3.126	4.213
2011	107	3.656	5.055
2010	115	3.760	5.381
2009	115	3.735	5.326
2008	124	3.996	5.647
2007	123	3.956	5.601
2006	129	4.125	5.721
2005	130	3.975	5.546
2004	134	3.853	5.349
2003	151	4.328	6.405
2002	167	4.789	7.174
2001	183	5.762	8.243
2000	193	6.162	8.827

Table 19 *The Norwegian merchant fleet by register, ownership and year (tonnage is measured in gross tonnes) (Statistics Norway, 2024).*

	NIS		NOR			
	Norwegian owned Vessels / Tonnage		**Foreign owned** Vessels / Tonnage		Vessels / Tonnage	
2020	485	12 074 996	170	5 167 952	916	2 016 186
2021	538	11 903 776	144	5 231 443	921	2 131 404
2022	549	11 812 101	143	5 156 614	900	2 040 314
2023	540	12 423 413	151	4 273 518	900	2 103 314

Appendix 2
Definition of a Flag of Convenience (FOC)

Definition of a Flag of Convenience (FOC), Marrakech Policy, ITF Policy on Minimum Conditions on Merchant Ships (International Transport Workers' Federation 2024:28-29).

The ITF defines flags of convenience as:

Where the beneficial ownership of a vessel is found to be elsewhere than in the country of the flag the vessel is flying, the vessel is considered as sailing under a flag of convenience. In cases where the identification of the beneficial owner is not clear, effective control will be considered and any vessel where there is no genuine link between the flag State and the person(s), or corporate entity with effective control over the operation of the vessel shall be considered as sailing under an FOC.

For the purposes of ITF policy, beneficial ownership refers to ultimate beneficial ownership or interest by a natural person. Where beneficial ownership is unclear, the ITF shall take account of who has effective control of the ship. Effective control is taken to mean control by an individual or group of individuals over a ship[30].

Any register can be declared a FOC on the basis that the majority of vessels on the register are not beneficially owned and/or effectively controlled within the flag State and the register does not satisfy the criteria set out in *{the paragraph below}*.

In addition to the above definition of an FOC, the ITF also takes into account the following criteria when determining whether to declare a register as an FOC:

a) The ability and willingness of the flag State to enforce international minimum social standards on their vessels, including respect for basic human and trade union rights, freedom of association and the right to collective bargaining with bona fide trade unions.

b) The social record as determined by the degree of ratification and enforcement of ILO conventions and recommendations.

c) The safety and environmental record as revealed by the ratification and enforcement of IMO instruments and revealed by port State control inspections, deficiencies and detentions.

The union(s) in the flag State may, if the overall conditions that apply to their national flag are not acceptable to them, request that the ITF declare the register as a FOC. The ITF reserves the right to declare any register a FOC if circumstances so dictate. The ITF also reserves the right to declare any ship to be an FOC ship on a ship-by-ship basis, following consultation with the flag State union(s).

[30] Guidance note:
The beneficial owner of the ship is the person or entity who has ultimate power to acquire and dispose or delegate operation of the ship and who thus exercises true control over the ship. Effective control resides with the person or entity with accountability and decision-making responsibility for the operation of the ship. Identifying who has beneficial ownership of a ship and/or who exercises effective control over a shipis essentially a question of fact.

International Organization of Masters, Mates & Pilots

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The International Organization of Masters, Mates & Pilots represents 6,000 American merchant mariners, including licensed deck officers on US-flag commercial vessels sailing offshore, on the inland waterways and on civilian-crewed ships in the government fleet. The union is a voice for merchant mariners in national and international forums.

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