

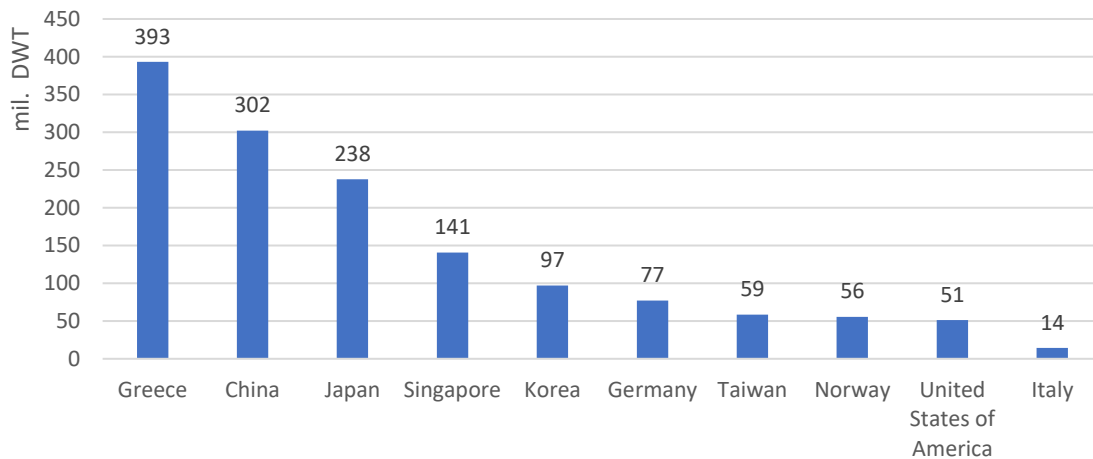
## Contribution of shipping to the Greek economy. Challenges and outlook

Foundation for Economic and Industrial Research, IOBE

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The study highlights the leading position of Greek-owned shipping on a global scale and its significant contribution to the domestic economy. Greece plays a pivotal role in the global maritime transport, acting as a driving force for global trade, thereby bolstering economic development both nationally and worldwide. Passenger shipping connects the country's islands with the mainland, crucially supporting the economic development of these islands by transporting residents, visitors, and goods. Maritime transport, along with related sectors such as cruise shipping and short-distance shipping, as well as various supporting services and goods (such as port operations, shipbuilding and repair, maritime equipment manufacturing, banking, insurance, legal, and accounting services), constitute a vital network of activities with particular importance for domestic income generation and employment.

Figure 1 Top-10 shipowners in DWT, August 2023



Source: UNCTAD

### Contribution of Greek-owned shipping estimated at 7,9% of the Greek GDP

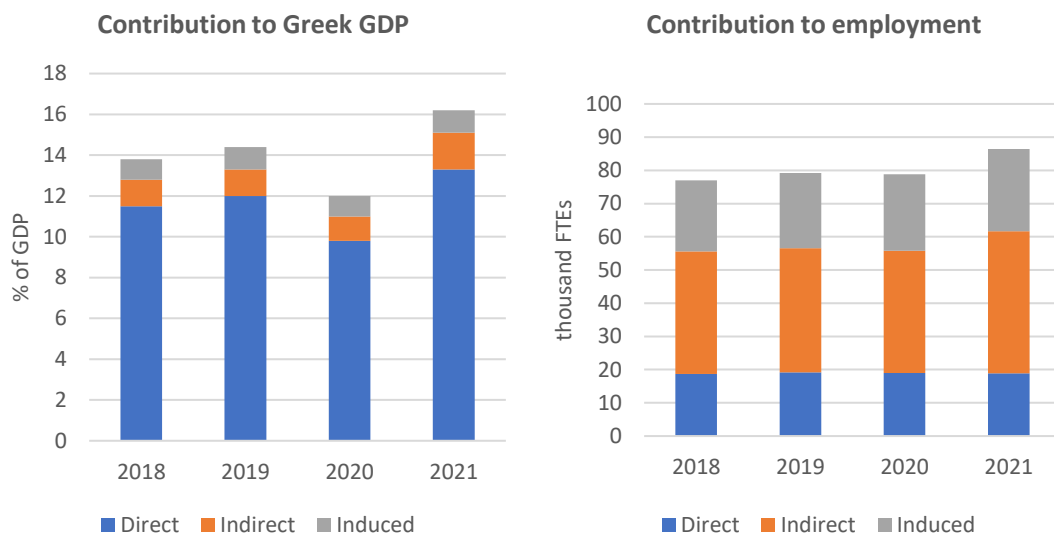
Despite disruptions caused by the COVID-19 pandemic, shipping continues to hold the largest share in Greece's gross value added compared to other European Union member states (3.1% versus just 0.2% on average in the EU). Additionally, revenues from transport services to foreign countries, recorded as part of the positive sea transport balance of payments, remain at high levels. Over the last decade (2012-2022), the country received €148.3 billion from maritime transport abroad, equivalent to 42% of the general government's gross debt.

In terms of employment, approximately 45.9 thousand people in Greece are employed in waterborne transport. Among seafarers manning NAT contracted vessels (the Greek sailors pensions fund), 30% are officers, with the rest comprising lower-ranking crew. Data indicates a decrease in the entry of young seafarers and a very low participation of women in the maritime

sector, although the participation rate of Greek sailors on NAT-contracted ships has been gradually recovering since 2014.

According to the study, taking into account the multiplier effects on other sectors of the Greek economy, the overall impact of shipping on Greece's GDP was estimated at €14.1 billion annually (average for the period 2018-2021), corresponding to 7.9% of the GDP. In terms of employment, the impact is estimated at 86.3 thousand full-time jobs, while public revenues increase by approximately €1.9 billion due to direct or indirect effects stemming from shipping. Besides its systematic positive impact, the relative contribution of shipping can be even more significant when other sectors of the Greek economy temporarily decline, as occurred during the deep debt crisis.

Figure 2 Total contribution of shipping to the Greek economy, 2018-2021



Source: IOBE Input output model

Economic activities significantly boosted by Greek-owned shipping include land transport, real estate management, financial services, as well as energy and construction sectors. Additionally, maritime capital has historically provided strong support for the development of various business activities in sectors such as aviation, oil refining, banking, and tourism. Moreover, charitable foundations funded by maritime capital provide significant social support and constitute a key source of funding for Civil Society initiatives in Greece.

### Gradually less preferred Greek registry

Despite the dominance of Greek shipping, the Greek registry (Greek flag) is becoming gradually less preferred due also to the limited supply of Greek seafarers. Despite the recent increasing trend in enrollments in Merchant Marine Academies, the number of graduates cannot cover the manning needs of the Greek-owned fleet.

Over the last decade, the Greek flag lost approximately 25% of its capacity, with the majority of the above caused by the registration of larger capacity ships (over 30,000 GT) in other flags.

## Pivotal challenges for Greek shipping

1. **Achieving carbon neutrality by 2050, both globally and at the European level:** The gradual decarbonization of shipping by 2050 is one of the key strategic goals supported by the International Maritime Organization (IMO) and the European Commission. The expansion of the European Emissions Trading System (EU ETS) to include shipping from 2024, with the first year of emissions allowances delivery being 2025, creates pressure on global shipping, especially on ships departing or arriving at European ports.
2. **New generation fuels for shipping - critical choice for competitive and carbon-neutral shipping:** The development and use of fuels produced through low or zero-carbon processes (such as blue fuels, biofuels, and electric power) can support, under certain conditions, the transition of shipping towards decarbonization. The electrification of shipping is tasked with solving issues related to cost, technical aspects of energy storage, as well as energy supply from ports. Currently, vessel orders mainly concern internal combustion engines and LNG. The use of electric propulsion is being applied either on a pilot scale, or in vessels of specific characteristics (e.g., tugboats, short-distance ships). Restrictive factors for the selection of new fuels include investment costs, onboard energy storage, and reliable supply from ports worldwide.
3. **The use of smart systems leads shipping into the digital era - key to autonomous ships:** The expansion of applications that securely collect and store operational data of ships leads, under certain conditions, to more efficient management, limiting operational expenses. Additionally, these applications form the basis for developing artificial intelligence (AI) solutions and autonomous ships. Significant interest in pilot applications of autonomous ships from major shipbuilding and shipping companies is expected to be reinforced by the institutional framework, the current development of which remains in early stages.
4. **New Financial Tools and their link to Environmental and Social Performance of Shipping:** Green transition demands investments in technologies, infrastructure, and personnel training. Greek shipping portfolios' exposure to loans is limited, while use of alternative financing methods is noted (e.g., financial leasing from Asian countries, self-financing, capital market fundraising). Changes in the institutional framework (such as the Poseidon Principles and Sea Cargo Charters) lay the foundations for connecting financing from banks and the capital market with the performance of shipping companies in the pillars of sustainable development. Green bonds and sustainability linked loans/bonds are among the financial tools that could, under certain conditions, support green transition and technological upgrading of shipping. However, there is a clear need for transparent and systematic reporting. ESG (Environmental–Social–Governance) reports are becoming more common in the industry, and the European institutional framework (CSRD – Corporate Sustainability Reporting Directive) mandates annual ESG reports also for small and medium-sized listed companies starting from 2027.
5. **Comparative Tax Disadvantage for Greek Shipping Companies:** Shipping taxation in Greece, relies on tonnage tax, along with an additional voluntary contribution introduced in 2013, aiming to support the Greek economy during the economic crisis. A comparative

analysis with taxation systems of other maritime states suggests that Greek shipping companies face a comparative disadvantage compared to those established in other tonnage tax regimes (within or outside the EU).