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ESG in the Shipping sector

The role of ESG in the evaluation of shipping companies

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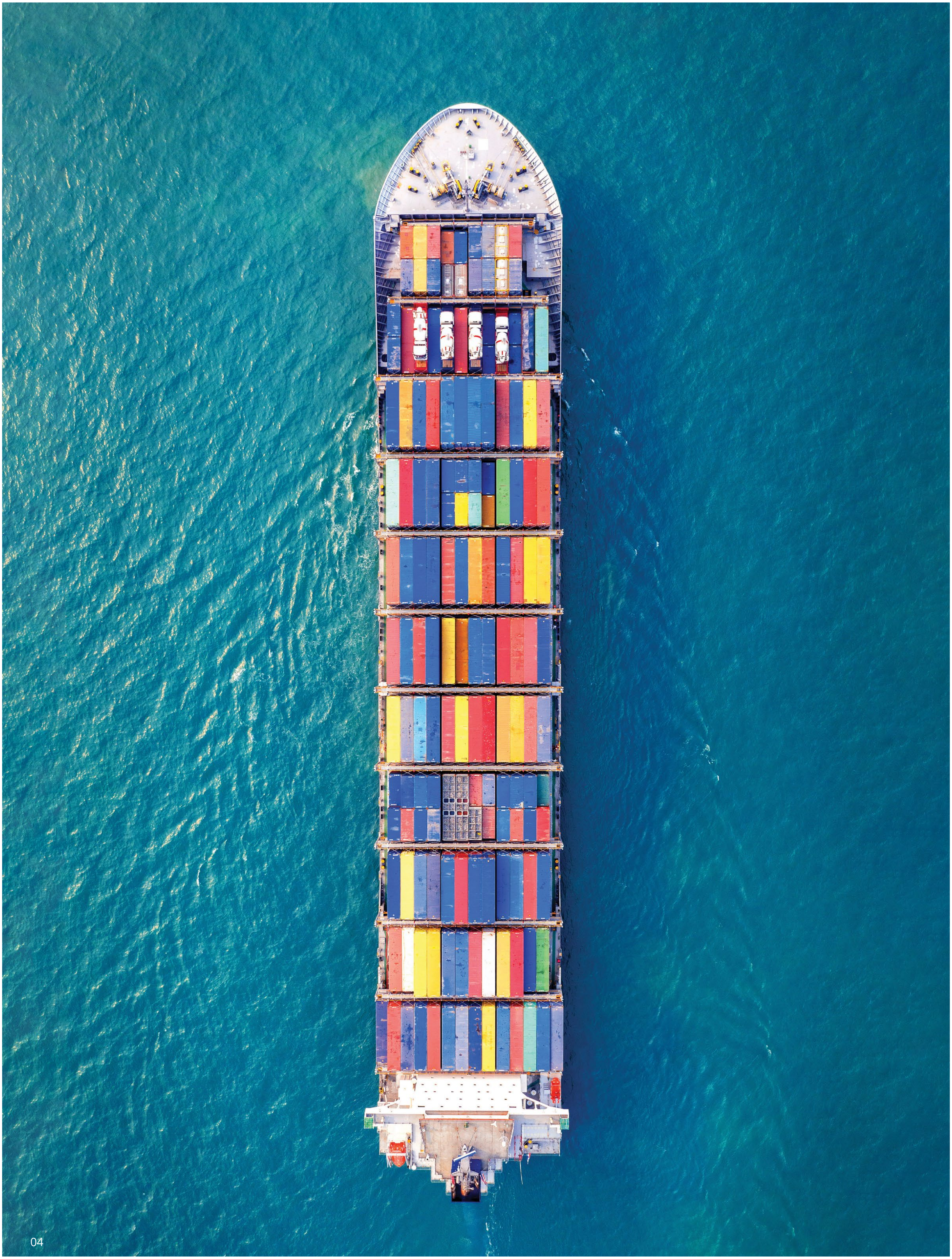
What you will find inside...



The adoption of ESG criteria is an emerging global trend in the evaluation of shipping companies.

Lately we continue to hear and read about the constant trend towards the expansion, rationalization and standardization of the "ESG principles", or else the sustainable development goals in the business world.

The term "ESG" refers to the active corporate involvement and the establishment of strategies and corporate practices that focus on environmental, social and corporate governance issues.

Within the quarter of April-June 2021 (according to Dealogic data), more than $31 billion were channeled into businesses worldwide through the issuance of green bonds, setting specific targets for reducing greenhouse gas emissions (or GHG) to issuers. To further illustrate the significant increase in green funding, from the beginning of 2019 until the end of March 2021, total funding through similar products amounted to $23 billion.

In addition, an ever-increasing number of companies include in their investment announcements, not only the expected economic impact in their financial results but also the estimated impact these investments will have on the reduction of gas emissions.

In this report we examine in more detail how the ESG map has been shaped around shipping, as well as what are the strategic issues that seem to concern shipping companies worldwide.

We hope you find this report interesting and useful, and welcome your feedback.

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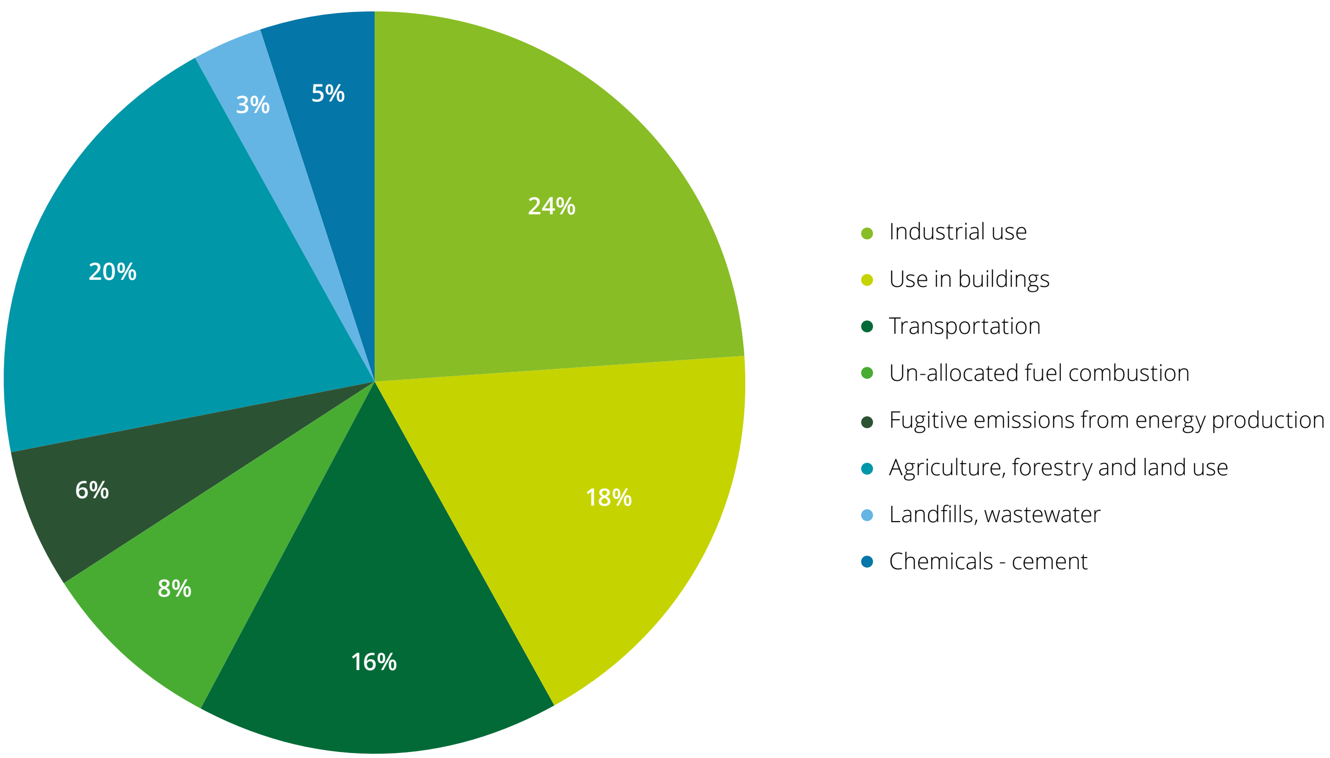
What is the carbon footprint of the shipping industry?

Introduction to the industry in figures

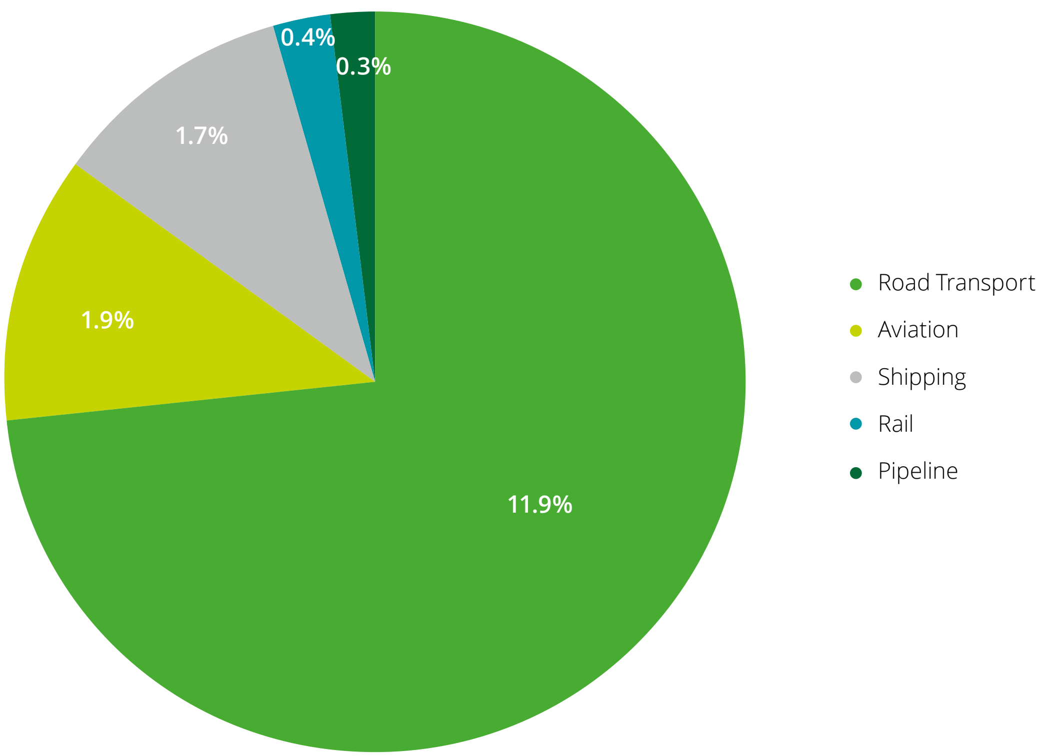
The maritime sector (shipping) is part of the wider Transportation sector.

In the table below (source: ourworldindata.org), we can observe that the percentage contribution of the Transportation sector in greenhouse gas emissions worldwide is 16%:

% of Greenhouse Gas Emissions by Industry sub-sector



It is important to examine the contribution of shipping within the overall Transportation sector as depicted in the following graph (source: ourworldindata.org).



Even though the shipping industry represents only a 1.7% of global greenhouse gas emissions, shipping companies have already taken several actions to inform their investors and other stakeholders about policies they are currently implementing, as well as their future plans in order for their business practices to be even more aligned with "ESG" principles.

As will become evident in the following sections of the article, the "E" part of "ESG", or "Environment", and its protection, constitutes the fundamental pillar where shipping companies develop their ESG strategies.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What are some key takeaways from ESG sustainability reports?

ESG

As far as ESG is concerned, the disclosure of data relevant to the environmental impact from shipping Companies' operations and their commercial fleets, constitutes an ever-growing trend.

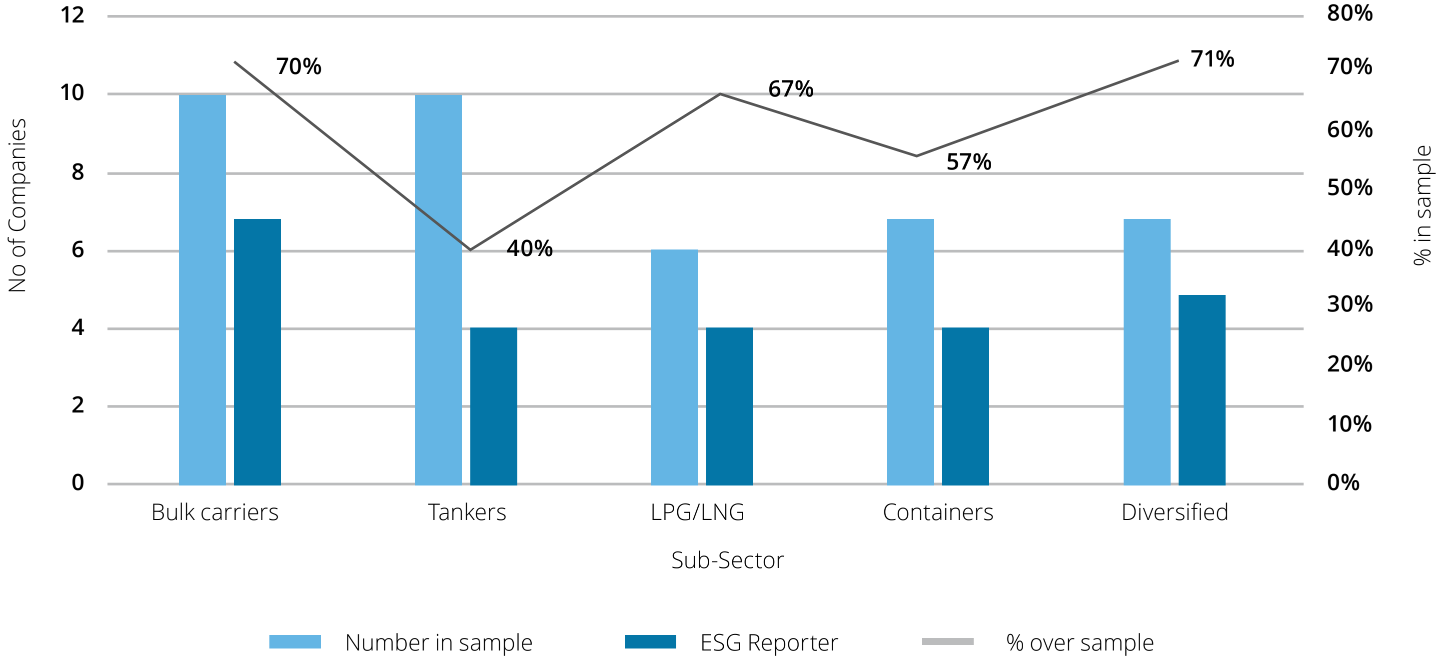
In a study of **38 randomly selected shipping companies**, active in the main shipping sub-sectors, there appears to be a considerable number of companies that have committed to prepare and compile annual sustainability reports, as reflected in the chart below:

More specifically, 24 companies (63%) out of the total sample have published at least one ESG report, with **6** of them being of Greek interest. Moreover, these **6** companies represent **43%** out of the total 14 shipping companies of Greek interest that were identified in the sample.

In the below chart, the representation of each shipping sub-sector in the 24 companies mentioned above (or, 63% of the total shipping sample) is outlined:

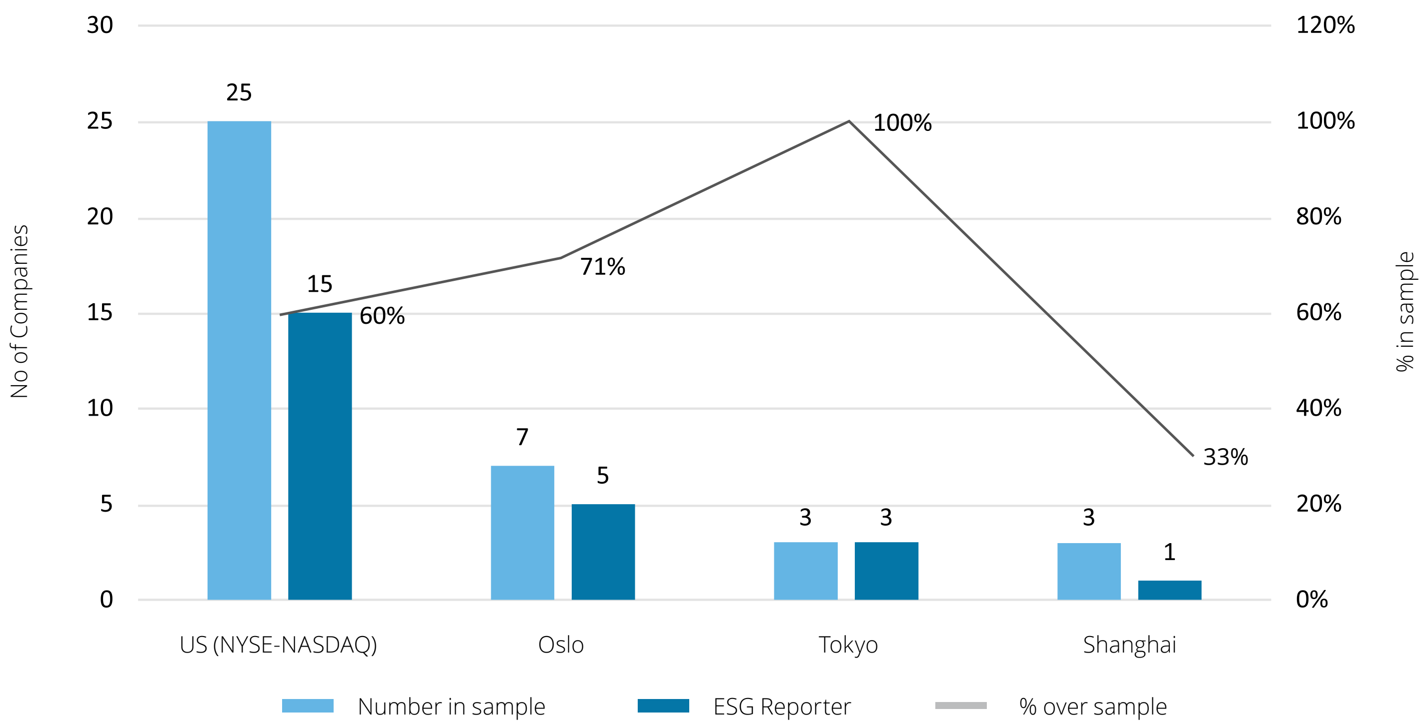
ESG Reports in Shipping

ESG Statistics by main shipping sub-sector



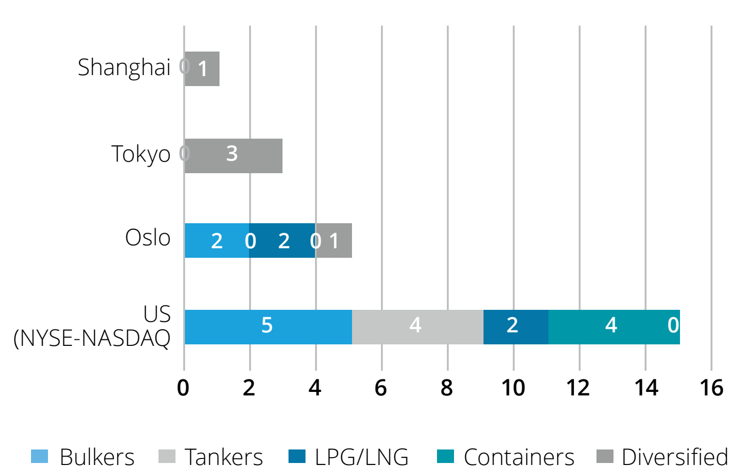
The below chart includes an analysis of the shipping sample distribution by major shipping stock exchange (NYSE-NASDAQ, Oslo, Shanghai, Tokyo), as well as the percentage of ESG filers found in the shipping sample across these major stock exchanges:

Sample distribution across major shipping stock markets



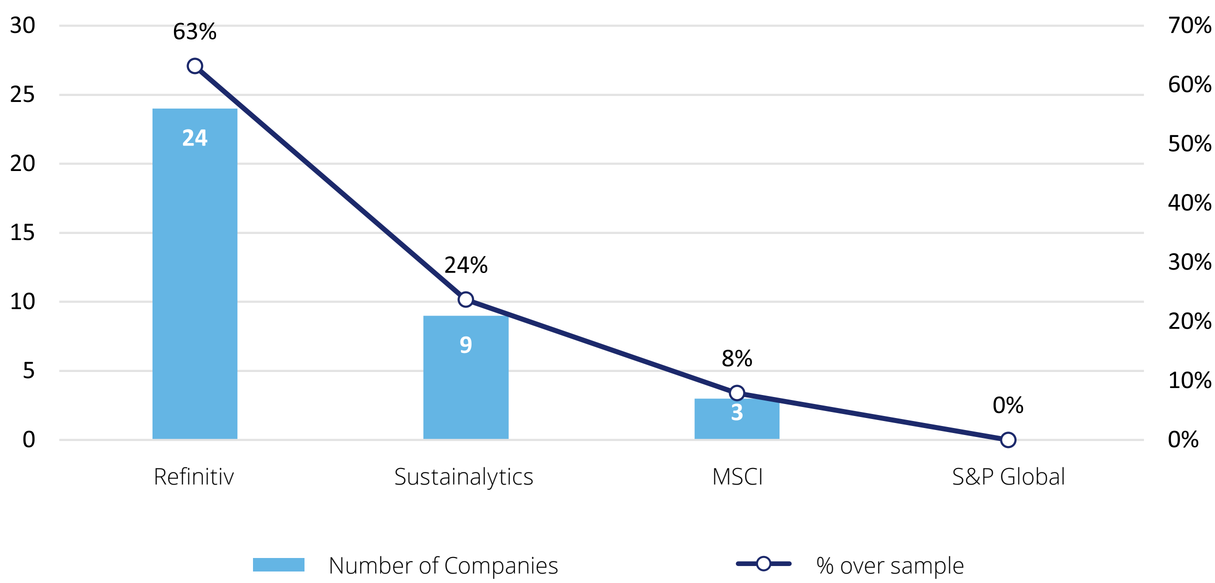
Further, the below chart includes a combined analysis of the shipping sample distribution by main shipping sub-sector, as well as by major shipping exchange:

Sample distribution: combined by sub-sector and exchange



Regarding ESG evaluation platforms having adopted ESG scoring methodologies: we identified to what extent 4 of the most commonly used ESG rating agencies, namely, Refinitiv, Sustainalytics, MSCI, S&P Global, had available ESG scores for each of the shipping companies included in the sample. The statistics are presented in the below chart:

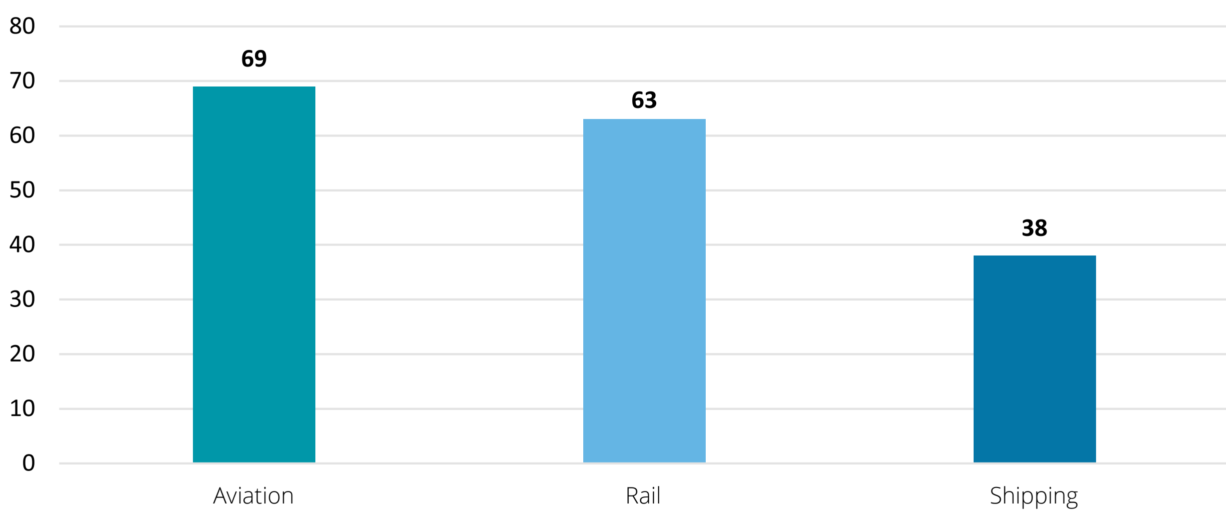
Number and percentage of shipping sample with ESG scores, per rating agency



It is worth mentioning at this point, that the majority of the globally renowned rating agencies have not yet evaluated or published ESG ratings for a significant number of shipping companies. However, the number of companies in the shipping industry obtaining ESG ratings appears to be **constantly on the rise**.

In the below graph, one can observe how Refinitiv, the rating organization that had the most ESG evaluations amongst the shipping sample, has rated 24 shipping companies out of the total 38 companies of the sample. This average appears to lag the average scores seen in a sample of companies from the Aviation and Rail sectors[1] (data as of October 2021):

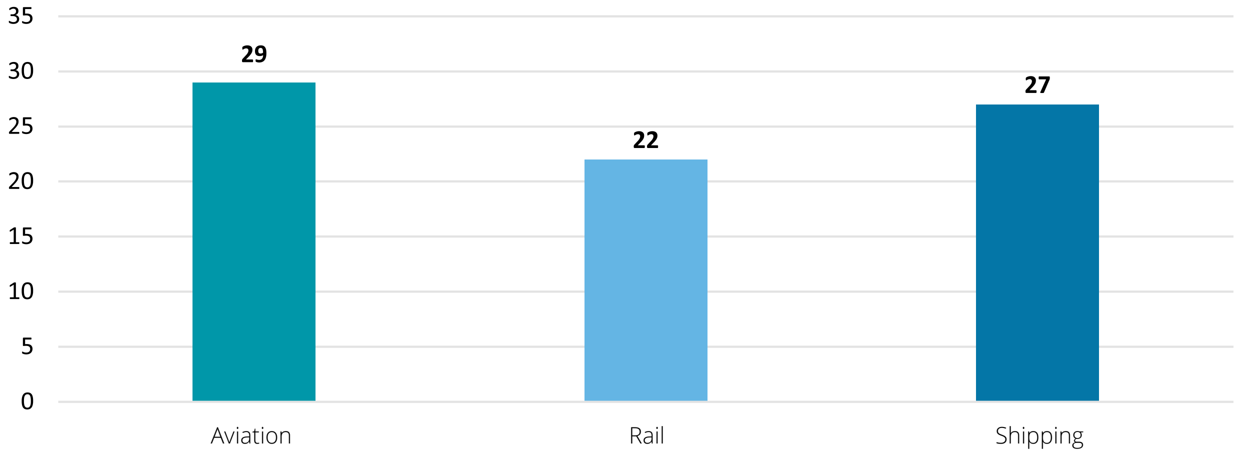
Average Rating per Major Transport Sub-Sector (source: Refinitiv)



On average, and summarizing the definitions provided to translate ESG scoring, shipping companies according to Refinitiv showed a **satisfactory ESG performance**, a moderate degree of transparency in ESG-related data public disclosure, and a **moderate exposure to ESG-related risks**.

The table that follows summarizes the scoring results reflected in Sustainalytics scoring platform[2]. Sustainalytics has rated a smaller number of shipping companies, namely 9 out of the total sample of 38 shipping companies:

Average Rating per Major Transport Sub-Sector (source: Sustainalytics)



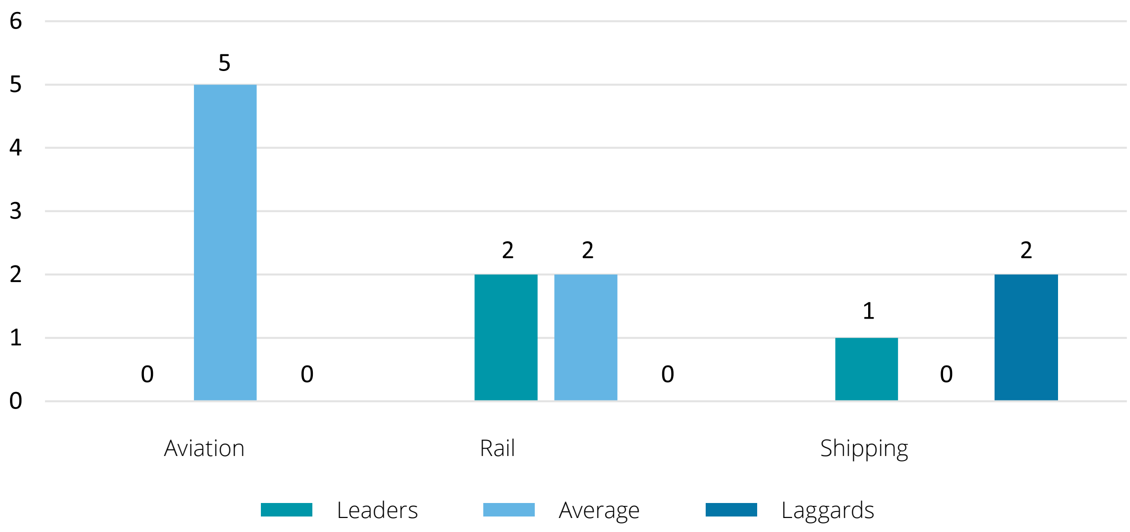
The overall average ESG score of 27, for the 9 shipping companies where an ESG rating was found, was translated to a moderate ESG risk. Any score above 30 according to the specific rating organization would indicate a high exposure to ESG-related risks.

It is interesting to note that according to Sustainalytics, there is a greater convergence of ESG average scores reflected in the 3 Transport sub-sectors. The median in the case of Refinitiv stands at 63, while in the case of Sustainalytics at 27, matching the average rating that the shipping companies achieved.

[1 & 2] Aviation and Rail samples comprised of 8 and 6 companies, respectively. Selection was random.

Finally, the following chart summarizes average ESG scores, as reflected in MSCI scoring platform[2]. Here, we can see that the sample coverage was smaller (3 shipping companies in the total sample were found to have ESG rating from the specific rating organization):

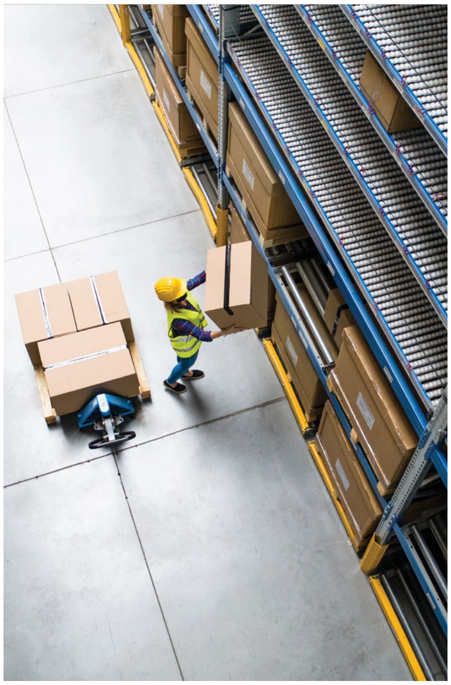
MSCI's Average Rating per Transportation Sub-Sector



MSCI's rating is organized into three main categories: Leaders, Average, and Laggards.

A "Leader" is defined as a company with excellent performance in managing risks and opportunities related to sustainability. "Average" is a company with a moderate approach and a moderate track record in managing sustainability risks and opportunities. A "Laggard" is a company with relatively higher exposure to sustainability risks and an un-satisfactory track record in managing risks and opportunities related to sustainability.

[2] Aviation and Rail samples comprised of 5 and 4 companies, respectively. Selection was random.



At this point while it is worth noting the great importance of the ESG data collection process, it is perhaps even more significant to evaluate the availability of data for further analysis. It is quite likely that a specific company, while being active in any of the three ESG pillars (Environment, Social and Governance), because its respective policies and procedural framework governing its operations are not readily available for rating agencies to analyze, the resulting ESG rating is lower than the one which would be achieved, had this type of information been publicly available for analysis and evaluation.

More specifically, the average ESG scoring of the 24 shipping companies of the sample stood at 38/100. Taking a closer look, we can observe that the lowest average rating between the three ESG pillars was found in the "Environmental" pillar, which according to Refinitiv entails greenhouse gas emission management, resource management, supply chain innovation, as well as the degree of development of innovative and environmentally friendly products. It is also interesting to note that 79% of companies in our sample, had a nil score in at least one of these three Environmental sub-components, while 29% of the sample had two nil scores in Environmental sub-components.

A key takeaway from the above analysis is that the fact that some of the above mentioned ESG sub-components received a nil rating does not necessarily imply a lack of ESG strategies-policies, as the component itself might not be completely relevant or applicable in the context of maritime operations.

For instance, a crude-oil shipping company by nature could not possibly earn a significantly high rating in the category "innovation and development of environmentally friendly products" of the Environmental pillar of ESG.

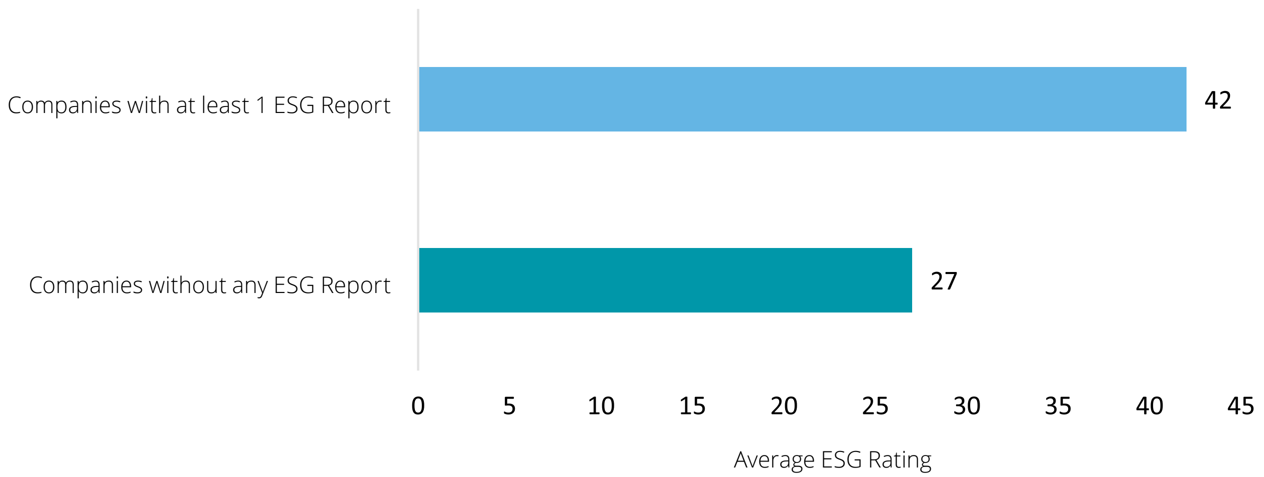
Perhaps at this point in time when we are observing a significant development in the modelling and calibration of ESG policies with sophisticated frameworks and methods, it would be useful to compare the individual rating of any given shipping company with companies operating in the same shipping sub-sector having a similar fleet profile, in order to understand the overall level of ESG readiness in an shipping organization.

Overall, it will be quite interesting to observe **how these ratings will evolve in the coming years**.

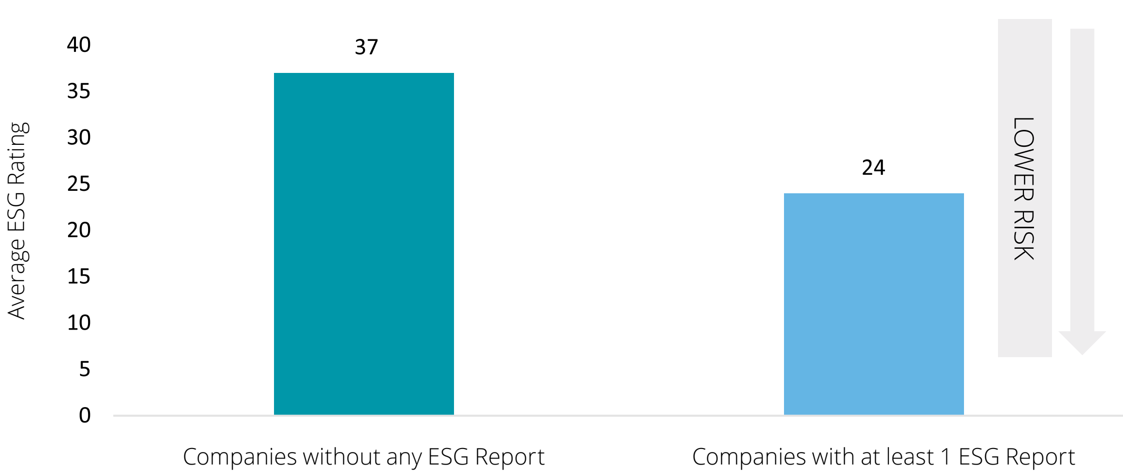
Another quite interesting fact that characterizes the analysis of ESG ratings from all rating agencies, for our sample of 38 shipping companies, is the positive correlation that appears to exist between their ESG performance / rating and the extent to which at least one ESG publication has been issued.

The graph below portrays the specific positive correlation (note: Refinitiv and Sustainalytics data were analyzed):

Average ESG Rating as a function of ESG Reports Published (source: Refinitv)



Average ESG Rating as a function of ESG Reports Published (source: Sustainalytics)



Hence, it can be concluded that a positive correlation appears to exist between the degree of multi-level analysis and transparency that characterize the ESG publications issued by any company and its overall rating in the environmental and sustainability areas.

Which international standards are utilized in the annual “ESG” reports of the shipping industry?

International standards

01. Sustainability Accounting Standards Board, or “SASB”

The basic and most commonly used set of standards stems from this non-profit organization, founded in 2011, which has compiled a standard of Sustainability accounting imprints for the Transportation Sector, based on the following 6 basic modules:

A) Greenhouse Gas Emissions
B) Air quality
C) Ecological Impact
D) Employee Safety and Hygiene
E) Business Ethics
F) Accidents and Accident Management

It can be noted that the above criteria consolidate all concepts included within each one of the three distinct **ESG** pillars, namely **Environment**, **Society** and **Corporate Governance**.

We will further analyze these components in the next section.

02. Strategic objectives of the United Nations Organization for maritime safety, security and prevention of marine pollution by ships (“IMO”) with regards to the reduction of greenhouse gas emissions (“GHG Emissions”)

The IMO, the most prestigious global maritime organization, has set the following strategic objectives regarding the maritime “footprint” in the global environment:

- Reduction of the average intensity of CO2 emissions by 40% by the end of year 2030, compared to 2008 levels.
- Reduction of total annual greenhouse gas emissions by 50% by the year 2050, compared to 2008 levels.

03. The Sustainability Goals of the UNITED NATIONS (UN Sustainable Development Goals, or “SGDs”)

The United Nations have compiled a list of 17 Sustainability and Equality Goals. It is worth noting that due to the fact that several of these goals incorporate elements such as the Environmental protection, they are also mentioned in several annual ESG reports issued by shipping companies.

04. Other

it is quite common for the annual ESG-Sustainability reports to use and comply with Principles of Corporate Governance from renown global organizations (for example the Norwegian Code of Ethics and Corporate Practice, or “**NUES**”), as well as bodies such as the World Economic Forum (“WEF”) and national state associations-organizations (such as the Norwegian Ship-owners Association).

Term "E" - Environment

The first component of the ESG, Environment, is the one with the most reports/indicators and analyses and is also directly related with management practices of maritime operations and targets that in a few years will take the form of mandatory compliance, such as those from the IMO mentioned in the previous section, regarding GHG emissions.

The Poseidon Principles

The framework of the Principles of Poseidon (or else Poseidon Principles) constitute the epicenter of the "E" pillar of ESG, while in the same time being widely recognized by the most prominent shipping financing institutions, as will be analyzed further in the following section named "ESG-linked ship finance".

Poseidon Principles constitute a widely used industry framework for evaluating and reporting policies that are in line with the IMO environmental strategies, as well as measuring the degree of conformity of funded shipping companies which form part of financial institutions' (mainly banks) portfolios.

The practical usefulness of the Poseidon Principles, is that all organizations which co-sign them, ought to measure on an annual basis their gas emissions (utilizing specific measures as will be analyzed later on in this report), as well as to draw conclusions and publish the results specifying the degree of conformity of the specific measures with the strategic commitment of gradual reduction of gas emissions.

For example, banks issue annual data related to the degree of conformity of their shipping finance portfolios with the strategic policies and objectives of the IMO and other governing organizations, regarding the reduction of greenhouse gas emissions.

Let's take a closer look at the three pillars of the annual ESG reports as perceived and shaped by the global shipping sector.

Based on the current data there is evidence that a banking institution that has co-signed the Poseidon Principles and publishes the respective information and results concerning its own financing portfolio, will be in a much more advantageous position to attract more investors and funds, compared to a financial institution that has not co-signed the Poseidon Principles.

In addition, banks with a significant exposure to shipping, when considering their investment strategy, will strongly prefer financing more energy efficient ships as well as shipping companies with a transparent and clearly formulated strategy on ESG-Sustainability reports.

The four basic Poseidon Principles are the following:

A) Principle of Assessment: by technical means, the co-signatories of the Poseidon Principles will measure carbon dioxide emission concentrations in order to determine whether they are conforming with the global targets for the reduction of such emissions.

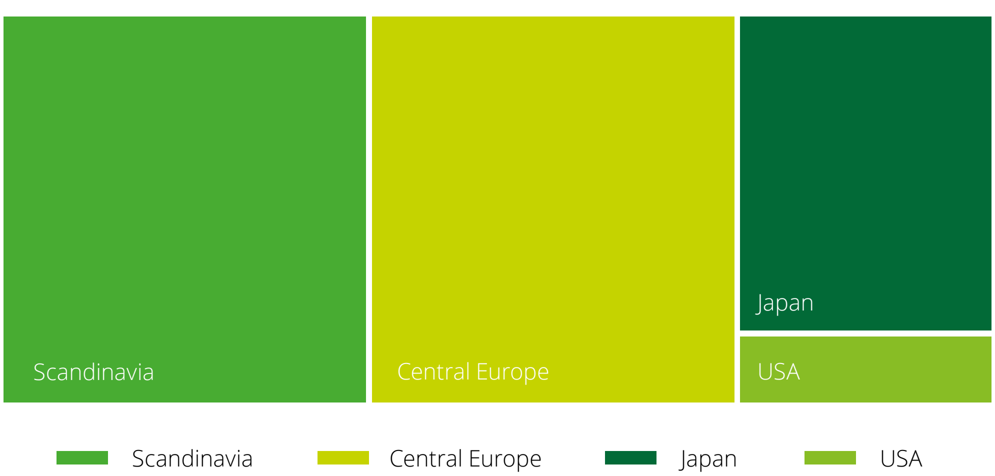
B) Principle of Accountability: the co-signatories are committed to use means and tools approved by bodies such as the IMO in order to conduct the necessary assessments.

C) Principle of Enforcement: the co-signatories undertake but are not obliged to use appropriately formulated clauses in the loan financing agreements they sign, to define and adequately describe the objectives set, in order for them to be as accurately measurable as possible.

D) Principle of Transparency: the co-signatories also publicly commit to follow these principles, monitor and report the results of the annual evaluation of their maritime portfolios to the General Secretariat of the Poseidon Principles, and publish these reports on an annual basis.

The following exhibit demonstrates the distribution, by geographical area of the 27 banking institutions that are currently the co-signatories of the Poseidon Principles:

Co-signatory Banking Institutions of the Poseidon Principles by Geography



To date, the majority of the co-signatory banks are located in countries that have traditionally maintained a more developed framework of policies to measure the degree of compliance with environmental rules.

As far as the global financing ecosystem of shipping companies is concerned, the profile maintained by each shipping company regarding the promotion of policies, among others for the protection of the Environment, seems to start playing an even increasing role as a financing criterion.

Furthermore, a trend that is imminent concerns an ever-increasing number of shipping companies that are expected to develop and publish ESG-Sustainability reports.

The main element and point of strategic approach at a global level, is the collection, recording and the publication of data regarding air pollutants and mainly CO2 pollutants. Specific indicators that are widespread and are central components of ESG Reports include amongst others:

- "**EEDI**", or energy design efficiency index, which measures the average CO2 emissions per nautical mile.
- "**AER**", or average efficiency ratio (by IMO and "CII", or a CO2 concentration index), which measures the CO2 emission in the same way that EEDI does, but also considering the vessel size in terms of deadweight.

Term "S" - Society

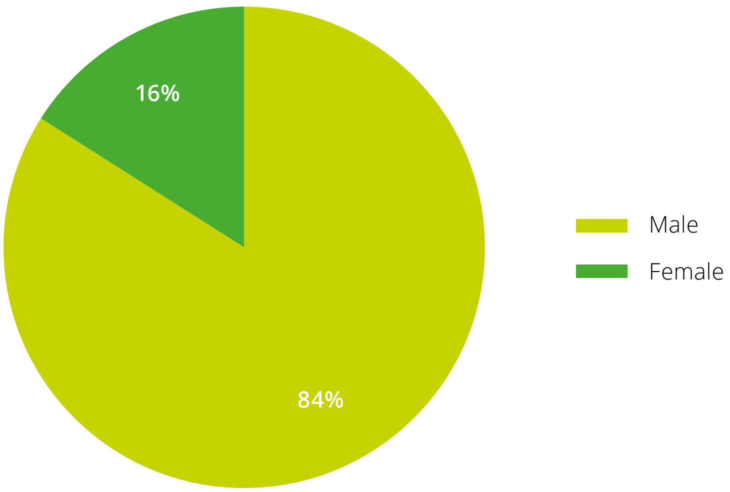
The second component of ESG, namely Society, entails the framework by which a company manages its relationships with its employees, suppliers, customers and the communities it operates in.

In the maritime industry it is directly connected with the management practices that focus on the improvement of the working conditions for the crew on-board, whilst taking all the necessary safety measures with the goal of minimizing accidents. A very recent topic of discussion during the peak of the COVID-19 pandemic, was taking all necessary measures to keep the crew satisfied, whilst dealing with the discomfort caused by their prolonged presence on board due to repatriation difficulties. It is not a coincidence that there is an ever-increasing number of shipping seminars with the aim of raising awareness on issues regarding obedience of the health and safety rules.

In addition, the "Society" pillar also entails the issue of under-representation of women in crew lists, a percentage which remains at fairly low levels compared to other sectors and industries. According to the IMO, women only make up for 1.2% of the total global crew capacity, whilst its main strategic goal being the gradual increase of the number of women in the maritime industry. It remains to be seen how this growth strategy will be implemented and through which targeted actions, beyond the annual information and statistics contained within the published ESG reports.

In the chart below we can see the percentage occupied by women in the Board of Directors of our random sample of the 38 shipping companies:

Female vs Male Representaion in the Board of Directors



Indicators that are utilized to measure the "Society" component are:

- Number of accidents "on-board"
- Number of human casualties during voyages
- Number of findings related to inadequate procedures in ports
- "Lost Time Incident Rate" which calculates the number of incidents that result in the loss of working days. The closer to "0" this indicator is, the better. Of course, not all incidents lead to complete downtime, which is why the specific indicator focuses on major incidents.

Term "G"– Corporate Governance

The third component of ESG, Corporate Governance, refers to the framework of rules, practices and procedures by which organizations are directed, managed and operated. The specific framework entails policies, processes and procedures, aimed at combating corruption especially in ports with non-formal operating procedures. Corruption incidents can lead to a significant loss of reputation, so it is very important to comply with all respective codes of ethics, as well as the international anti-corruption rules and laws including US FCPA and UK bribery acts, where zero tolerance for corruption incidents is the norm.

Shipping companies on the other hand, ought to include and follow specific procedures within their operational framework for measuring compliance, monitoring their ships and keeping a record of ports visited, that hold a history of corruption incidents.

The role of ESG criteria in Shipping finance

The role of ESG criteria in Shipping finance

There is a belief in the maritime industry that shipping companies which are improving in ESG areas, amongst other things, gain significantly easier access to capital and sources of finance.

Although ESG indicators can often be considered as 'non-financial', the way they are managed by a company may have financial consequences.

The capital invested by funds in companies that meet the ESG criteria, has increased by 170% from 2015 to 2021 and the capital invested in green euro bonds, increased sevenfold over the same period. Furthermore, organizations such as Moody's, Bloomberg, MSCI and Fitch, aim to establish specialized rating standards for the ESG criteria. Banks are increasingly focusing on meeting the ESG criteria for their investment and financing decisions, as climate risk will soon be integrated by the ECB into prudential supervision, with the aim of reducing the risk to banks posed by non-sustainable investments.

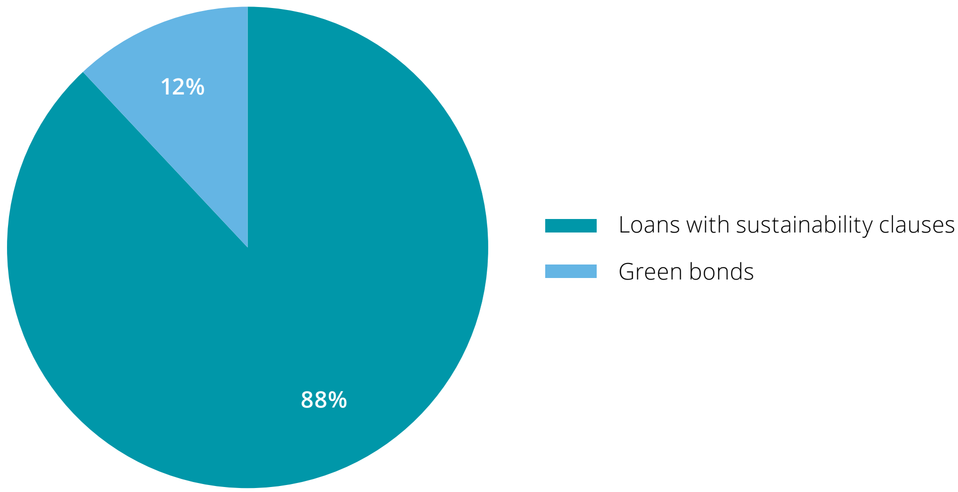
It should also be noted that the valuation of green bonds increased eightfold in 2020 while for the first quarter of 2021 alone, it reached $287 billion, twice as much as the same period last year, according to Refinitiv.

By the end of 2020, the total capital invested by ESG funds worldwide, reached a record amount of **$1.7 trillion**, representing an **increase of 50%** from 2019, which was also a record year.

Since May 2018, new funding directed to shipping organizations based on ESG indicators ("ESG funding"), amounted to approximately $14.5 billion and as the following exhibit indicates, 88% relate to loans and the remaining 12% to bonds.

According to Clarkson's, ESG financing already accounts for a considerable part of the overall financing portfolio (in the order of around $281 billion as of October 2021) of the leading financial institutions offering shipping finance. In addition, out of the 27 banking institutions which co-signed the Poseidon Principles, 15 of them manage 56% of the total shipping portfolio whilst also being the leaders in shipping finance.

Green Shipping Finance, May 2018 - Present



Is ESG performance linked to the return of a shipping finance portfolio?

ESG performance and shipping finance portfolio

As mentioned above, funding to companies that meet the ESG criteria has increased in recent years. It is interesting to investigate further whether stock prices of companies with higher ESG rating are rewarded by the market compared to those with lower performance.

In practice, this exercise does not prove to be easy at all. Depending on the period examined and the evaluator, shares of companies with a high ESG score either perform better than the market or fall short. On the other hand, stocks of companies with low ESG rating that are deemed to pollute the environment the most and fail to disclose data regarding their corporate governance framework, might perform better than the shares of companies with a high ESG rating.

Taking into consideration that ESG scores fluctuate depending on the provider, the results are not always stable. Rating agencies argue that high ESG scores will reward investors in the long term and investors can use scores from multiple agencies.

It is worth noting that the U.S. Securities and Exchange Commission (SEC) is considering the need to enact new laws regarding increased disclosures about climate change and emissions from companies.

The Wall Street Journal examined about 500 U.S. companies with ESG scores measured by three providers (Refinitiv, MSCI, Sustainalytics) and analyzed their stock performance for 2020 and 2021 by classifying companies into three categories: a) companies with high ESG rating, b) companies with an average ESG rating and c) companies with a low ESG rating. The chart below benchmarks a sample of ESG US rated companies against the S&P 500 and DJIA indices.

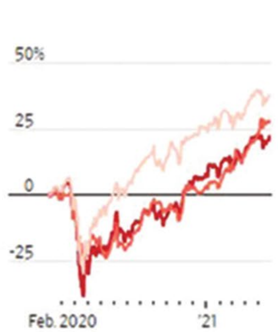
Share-price performance of nearly 500 companies scored by three ESG-data providers compared to the market

Depending on the ESG rating agency, the results differ, and it is certainly not clear that the performance of a stock has a direct correlation with its ESG rating. The main reason for the different results is that each provider, uses different data sources and processes and emphasizes on different aspects of the "behavior" of companies, to determine their specific ESG rating.

In any case, the common component of all analyses is that the emphasis is placed on medium to long term period. In addition, research has shown that companies with higher ESG rating tend to have higher profitability over a period of 5-7 years compared to those with lower ESG rating.

Sustainalytics ESG rating category

Average
Good
Poor



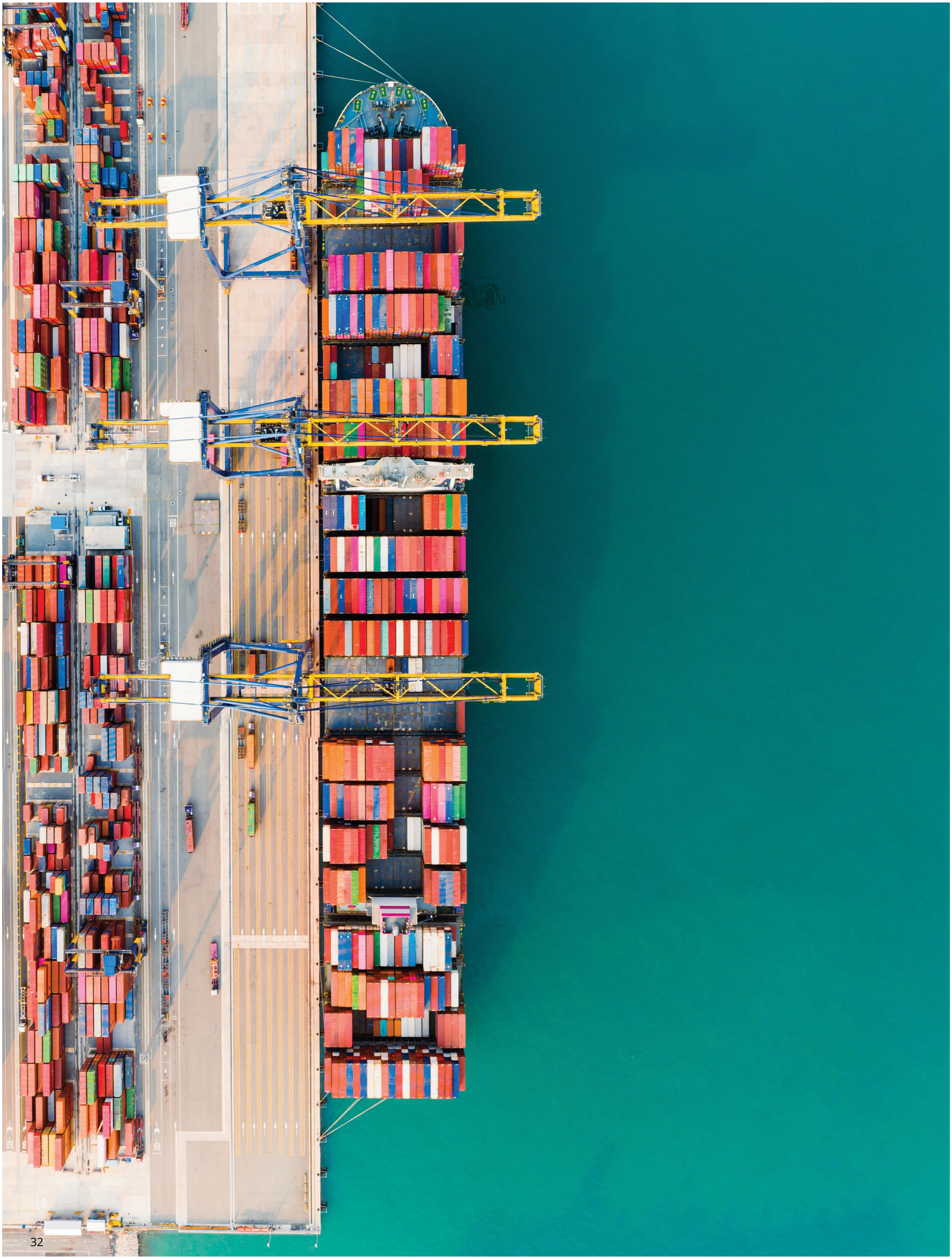
MSCI ESG rating caregory

Average
Good
Poor

Refinitiv ESG rating caregory

Average
Good
Poor

Source: Wall Street Journal analysis of ESG scores from Refinitiv, MSCI and Sustainalytics; Dow Jones Market Data

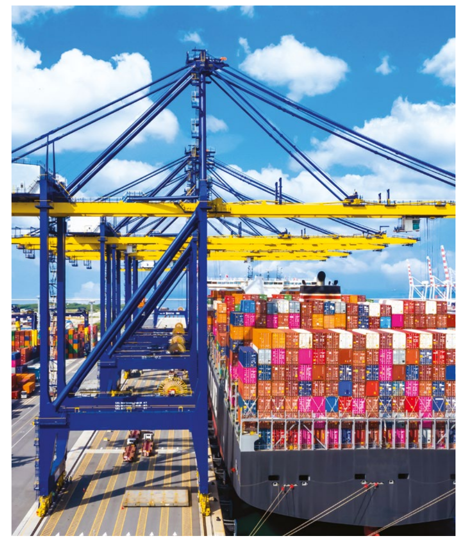


Conclusions

The growing interest of the maritime industry towards ESG has introduced new concepts and objectives to follow, as well as the following key points of interest:

- How aggressive will the decisions of the IMO and of other relevant maritime organizations be in the coming years with regards to reducing greenhouse gas emissions.
- How will the implementation of the above policies drive changes in the global fleet and mainly in the average age of vessels and the use of environmentally friendly technologies and ultimately how will more energy efficient and ESG friendly shipping companies obtain a competitive advantage.
- The commitment with which the financial services industry will prioritize greener shipping companies and what will be the financial benefit for them over the competition.
- How many more banking institutions will co-sign to the Poseidon Principles.
- The ever-increasing role of Asia as a key player in maritime finance and the extent to which these financial institutions will really embrace the ESG framework.
- The ability of investors to assimilate the ESG pillars and to understand whether and how this will lead in the long term to an improvement in the return of their investment portfolios.

It is beyond doubt however that some investors, institutional and non-institutional, are shifting their focus to enterprises / sectors where sustainable economic development is central in their core strategy.



What is certain is that the “E” (Environment) pillar will continue to play a pivotal role in the formulation of ESG strategies by shipping companies in the coming years.

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