

# A Sea Change

Which shipping companies are ready for the low-carbon transition?

## Executive Summary

June 2019



Authors: Kane Marcell, Carole Ferguson and Christie Clarke

CDP's sector research for investors provides the most comprehensive climate and water-related data and analysis on the market. The Extel IRRI survey ranked CDP the number one climate change research house for three years in a row.

CDP's sector research series takes an in-depth look at high impact industries one-by-one. Reports are now available on the automotive industry, electric utilities, diversified chemicals, diversified mining, cement, steel, oil & gas, capital goods and consumer goods.

Full sector reports are exclusively available to CDP investor signatories and members through the online investor dashboard and include detailed analysis, company insights and methodology. Members have enhanced access to analysts within the Investor Research team and the full GHG emissions dataset. To become a CDP signatory or member and gain access to the full reports and other tools, including CDP company disclosure data, please contact [investor@cdp.net](mailto:investor@cdp.net).

For more information see:  
<https://www.cdp.net/en/investor/sector-research>  
<https://www.cdp.net/en/dashboards/investor>

Authors:  
Kane Marcell  
Carole Ferguson  
Christie Clarke

Acknowledgements:  
Jinxi Chen  
Alice Newman  
Sebastian O'Connor  
Dr. Tristan Smith - UCL

## Accessing the full report

The full report is available only to CDP investor signatories and members. Signatories can access the full report from <https://www.cdp.net/en/dashboards/investor>. Please contact your CDP account manager or [investor@cdp.net](mailto:investor@cdp.net) if you are not able to log in. Members have enhanced access to analysts within the Investor Research team.

# Linking climate metrics to earnings for Shipping companies

This is CDP's first research report for investors on the Shipping Sector. It ranks 18 of the largest publicly listed Shipping companies on business readiness for a low-carbon economy transition. The universe covers a diverse range of companies but focuses on the Bulk, Container and Tanker business segments of companies' operations.

The Shipping Sector accounts for between 2 - 3% of global emissions and around 10% of global transport emissions. Based on current technology it is one of the least emissions, intensive modes of freight transport. However, with demand for freight services expected to increase 3 - 4% annually it is imperative that the sector is able to decouple emissions from future increases in demand for freight transport<sup>(1)</sup>.

The recent introduction of the International Maritime Organization's (IMO) Greenhouse Gas Strategy which targets a minimum absolute emissions reduction of 50% by 2050 has created greater impetus for companies to take a more structured approach to long-term decarbonisation efforts.

We cover approximately 47% of the container transport market, 17% for Bulk and 13% of the Oil Tanker market when assessed on a DWT capacity basis. Around 42% of seaborne trade starts its journey in Asia and this is reflected in the universe of companies included in this report.

More than 70% are listed in Asia, most notably Japan, China and Taiwan. There is also representation from companies listed in both the US and Europe.

There are three key areas assessed in the League Table, which are aligned with recommendations for company reporting from the G20 Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD):

**Transition risks:** We assess the operational and technical efficiency of companies' fleets and how their vessel purchasing decisions affect this. We assess the capital flexibility of companies and conduct an assessment of companies' exposure to longer-term market risks for transported commodities.

**Transition opportunities:** We look at innovation activities to develop lower carbon fuels, technologies and practices. We conduct our analysis using a scorecard approach to differentiate between the materiality of the technical and operational measures being taken.

**Climate governance and strategy:** We analyse companies' governance frameworks by looking at their climate management structures, board level climate expertise and ship recycling governance. We also assess companies' emission reduction targets as well as the quality of their disclosure.

## Key findings

- ▼ **Container transport is the most emissions intensive shipping subsector** but has achieved the highest emission reductions across the sub-sectors, on average reducing by 5.3% p.a. between 2012-17<sup>(2)</sup>.
- ▼ **Emissions from the Bulk and Tanker divisions have stagnated** with emission intensities from both sectors increasing 1% and 0.5% p.a. on average over the same period.
- ▼ **Achieving long-term emission reductions will be challenging for the sector** with a clear gap between company ambition and the technologies and fuels required to deliver the IMO's long term emission reductions.
- ▼ **Biofuels, Hydrogen and Ammonia based fuels which can deliver significant emission reductions are under developed** with only a few companies showing evidence of collaborating to facilitate their development.
- ▼ **10 companies are actively facilitating the development of LNG marine fuel** through collaborations or integration of LNG-ready vessels into their fleet.
- ▼ **Retrofitting existing fleets could be a capital efficient strategy over the short term before more transformative technologies become viable** – 14 companies show evidence of retrofitting activity.
- ▼ **The average fleet age of the universe was found to be below the global average for vessels** across the three sub-sectors, but this does not necessarily position the universe for longer term emission reductions.
- ▼ **Technology adoption is challenged by low EBIT Margins and high indebtedness** – Margins averaged 2.5% and the average debt-to-equity ratio was 110%.
- ▼ **Slow steaming is an important short-term lever capable of delivering emission reductions of around 30%** - 13 of companies were found to have a slow steaming strategy.
- ▼ **LNG with a significant role as a transition fuel in the IEA's Sustainable Development Scenario (SDS) for below 2°C** presents a growth opportunity for LNG carriers out to 2040. Bulk and tanker companies exposed to thermal coal and oil product transport are more at risk from decarbonisation trends.
- ▼ **Container Transport is more resilient to long-term decarbonisation trends** due to diversity in the products transported.
- ▼ **12 of the 18 companies have disclosed emission reduction targets.** 50% of these are long term Scope 1 targets out to 2050; however, these need ongoing scrutiny given the low reported board level oversight and lack of immediate technology options to decarbonise.
- ▼ **Two companies are targeting net zero emissions by 2050.** Another two have set Science-based targets and two others have sort to align their targets with the 2018 IMO GHG strategy.
- ▼ **Board level oversight of climate issues is very low compared to other sectors.** Only three companies have a formal climate / environmental committee at the board level.
- ▼ **Disclosure is poor for the sector.** Only four companies are official supporters of the TCFD and only five companies in the universe completed CDP's 2018 Climate Change questionnaire.
- ▼ **There is a lack of uniformity in emissions intensity reporting** with companies using different methodologies. 12 companies report using the IMO Energy Efficiency Operational Index (EEOI) which is the most accurate measure of transport work. Other companies report on a nominal capacity basis which assumes vessels are always fully loaded.
- ▼ **NYK is ranked in first position overall with Maersk and MOL in second and third position.** Lowest ranked companies are **COSCO S.ET and NS United.**

1. Lloyd's Intelligence, 2017

2. This is based on an emissions intensity methodology consistent with the IMO's Energy Efficiency Operational Index (EEOI) which measures emission intensities based on the volume of cargo transported over a given distance (e.g. gCO2/tonne\*km)



## CDP Investor Research

### CDP UK

#### Carole Ferguson

Head of Investor Research  
+44 (0) 20 3818 3956  
carole.ferguson@cdp.net

#### Luke Fletcher

Senior Analyst,  
+44 (0) 20 3818 3951  
luke.fletcher.cdp.net

#### Ling Sin Fai Lam

Senior Analyst,  
+44 (0) 20 3818 3935  
ling.sinfailam@cdp.net

#### Christie Clarke

Analyst,  
+44 (0) 20 3818 3951  
christie.clarke@cdp.net

#### Kane Marcell

Analyst,  
+44 (0) 20 3818 3956  
kane.marcell@cdp.net

#### Tom Crocker

Analyst,  
+44 (0) 20 3818 3935  
tom.crocker@cdp.net

#### Alice Newman

Analyst,  
+44 (0) 20 3818 3935  
alice.newman@cdp.net

#### Jinxi Chen

Analyst,  
+44 (0) 20 3818 3935  
jinxi.chen@cdp.net

### CDP

Plantation Place South  
60 Great Tower Street  
London EC3R 5AZ  
United Kingdom

Tel: +44 (0) 203 818 3900

@cdp  
www.cdp.net  
info@cdp.net

## CDP contacts

### CDP UK

#### Frances Way

Chief Strategy Officer

#### Sebastian O'Connor

Senior Account Manager,  
Investor Engagement  
+44 (0) 20 3818 3900  
sebastian.oconnor@cdp.net

### CDP North America

#### Emily Kreps

Head of Investor Initiatives  
+1 646 517 6470  
emily.kreps@cdp.net

#### Radhika Mehrotra

Manager, Investor Initiatives  
+1 646 517 6471  
radhikamehrotra@cdp.net

### CDP Europe

#### Laurent Babikan

Director of Investor Engagement  
+33 658 66 60 13  
laurent.babikan@cdp.net

#### Torun Reinhammar

Senior Account Manager,  
Investor Engagement  
+46 (0)705 365903 torun.reinhammer@  
cdp.net

#### Matteo Brezza

Account Manager, Investor Engagement  
+49 30629033120  
matteo.brezza@cdp.net

### CDP Japan

#### Kyoko Narita

Senior Account Manager,  
Investor Initiatives  
+81 (0)3 6869 3928  
kyoko.narita@cdp.net

## CDP Board of Trustees

### Alan Brown (Chairman)

### Annise Parker

### Christine Loh

### Jane Ambachtsheer

### Jeremy Burke

### Jeremy Smith

### Katherine Garrett-Cox

### Martin Wise

### Rachel Kyte

### Ramakrishnan Mukundan

### Sonia Medina

### Stephen T Chow

### Takejiro Sueyoshi

### Media enquiries

#### Rojin Kiadeh

Communications Manager,  
+44 (0) 20 3818 3973  
rojin.kiadeh@cdp.net

#### Tess Harris

Communications Manager,  
+44 (0) 20 3818 3973  
tess.harris@cdp.net

### Important Notice

CDP is not an investment advisor, and makes no representation regarding the advisability of investing in any particular company or investment fund or other vehicle. A decision to invest in any such investment fund or other entity should not be made in reliance on any of the statements set forth in this publication. While CDP has obtained information believed to be reliable, it makes no representation or warranty (express or implied) as to the accuracy or completeness of the information and opinions contained in this report, and it shall not be liable for any claims or losses of any nature in connection with information contained in this document, including but not limited to, lost profits or punitive or consequential damages.

The contents of this report may be used by anyone providing acknowledgement is given to CDP. This does not represent a license to repackage or resell any of the data reported to CDP and presented in this report. If you intend to repackage or resell any of the contents of this report, you need to obtain express permission from CDP before doing so.

'CDP' refers to CDP Worldwide, a registered charity number 1122330 and a company limited by guarantee, registered in England number 05013650.

© 2019 CDP Worldwide. All rights reserved.