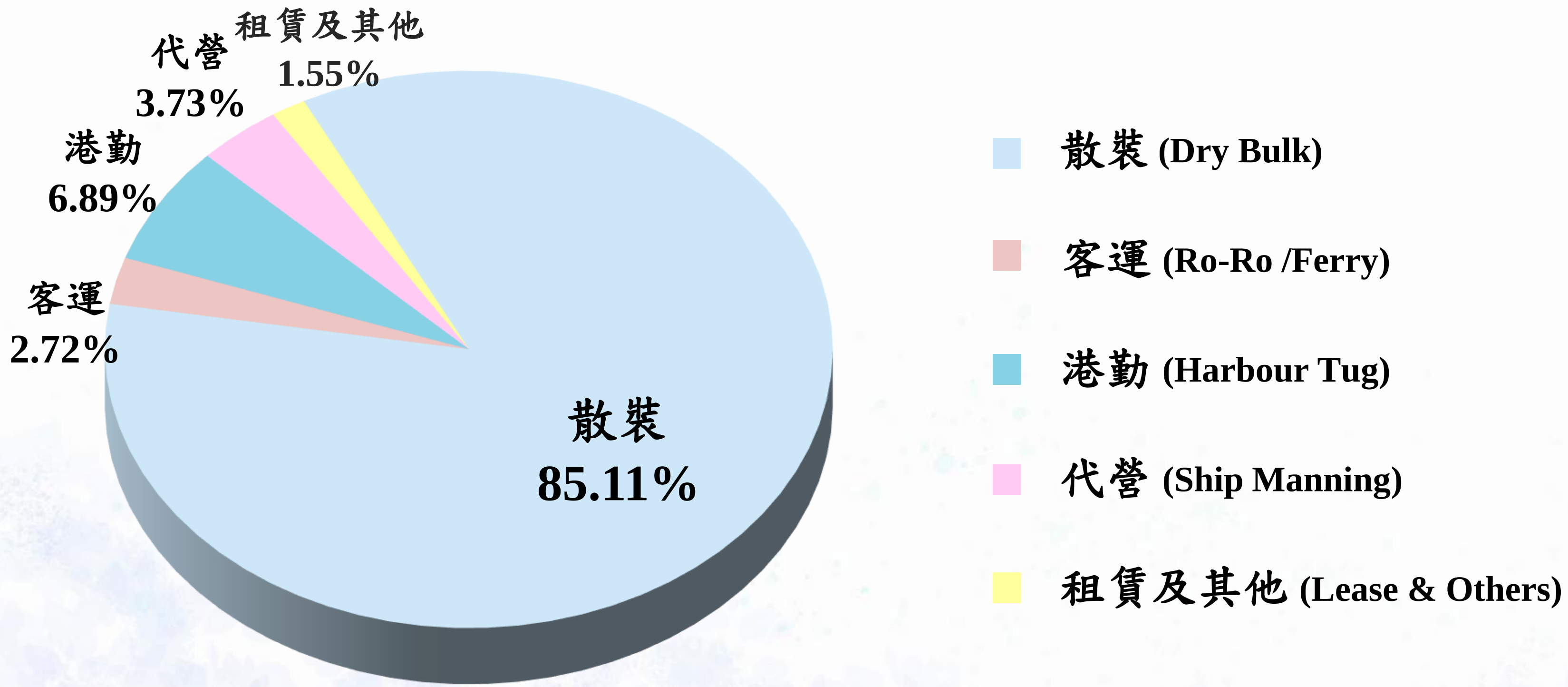
台灣航業股份有限公司
Taiwan Navigation Co., Ltd

業務說明會

2023.10.26

股票代號 2617

業務範疇 Business Scope
(~ 30 June. 2023)



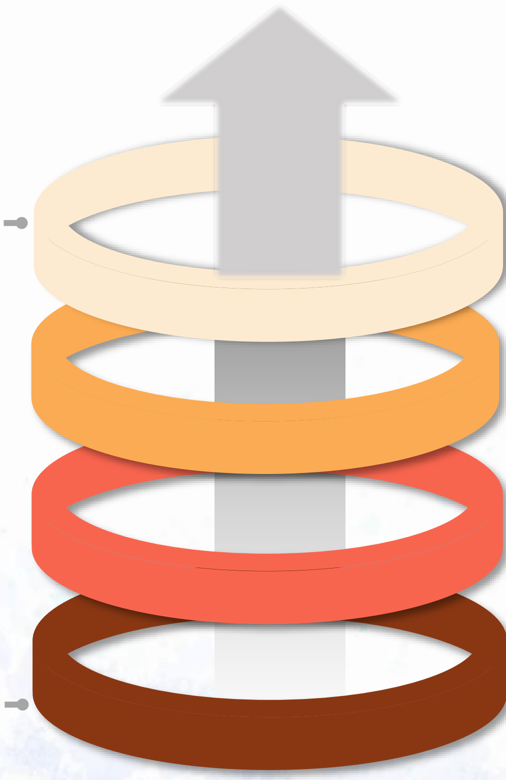
現有船隊 Fleet

- 乾散貨船 Dry Bulker
  - 82K ~ 84K x 9 (Avg. 3.6 yrs)
  - 55K ~ 64K x 10 (Avg. 7.1 yrs)
  - NB (64K) x 2 (Q2, Q3 2024)
  - NB (40K) x 2 (Q3, 2024)
- 港勤拖輪 Harbour Tugs & Lauches
  - 台中LNG Termina—Harbour Tug x 4 (Avg. １６ yrs)
  - 觀塘LNG Terminal—Harbour Tug & Launch x ７ (Avg. １ yrs)
- 客貨輪 Ro-Ro/Ferry
  - 澎湖輪 (Penghu） x 1 (Delivered in Aug 2023)
- 油輪 MR Tanker x 3 (Manning management for CPC Taiwan)

資產 Assets (~ 30 June. 2023)

總資產 Total Assets 24,609

新台幣百萬元 mn-NT$



船舶(含預付款)
Fleet (including prepayments)

17,593

投資性不動產*
Investment Property

1,143

* 土地 Lands 17,582㎡

建物 Buildings 14,130㎡

自用房地 Property

235

其他資產 **Other Assets**

5,638

** 陽明股數 YM's Stocks

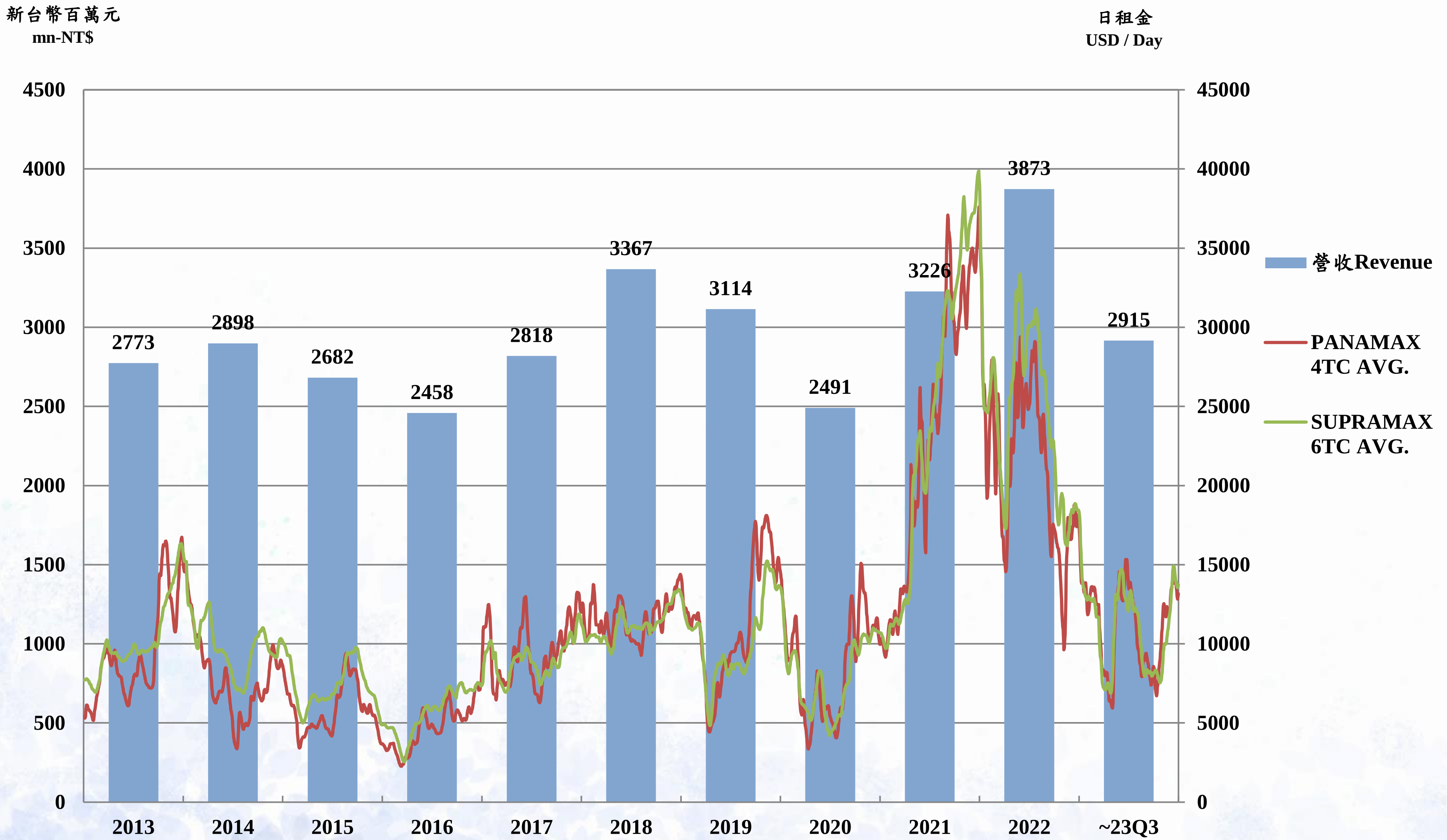
37,291 仟股 Shares (In Thousands)

歷年損益 Financial Performance

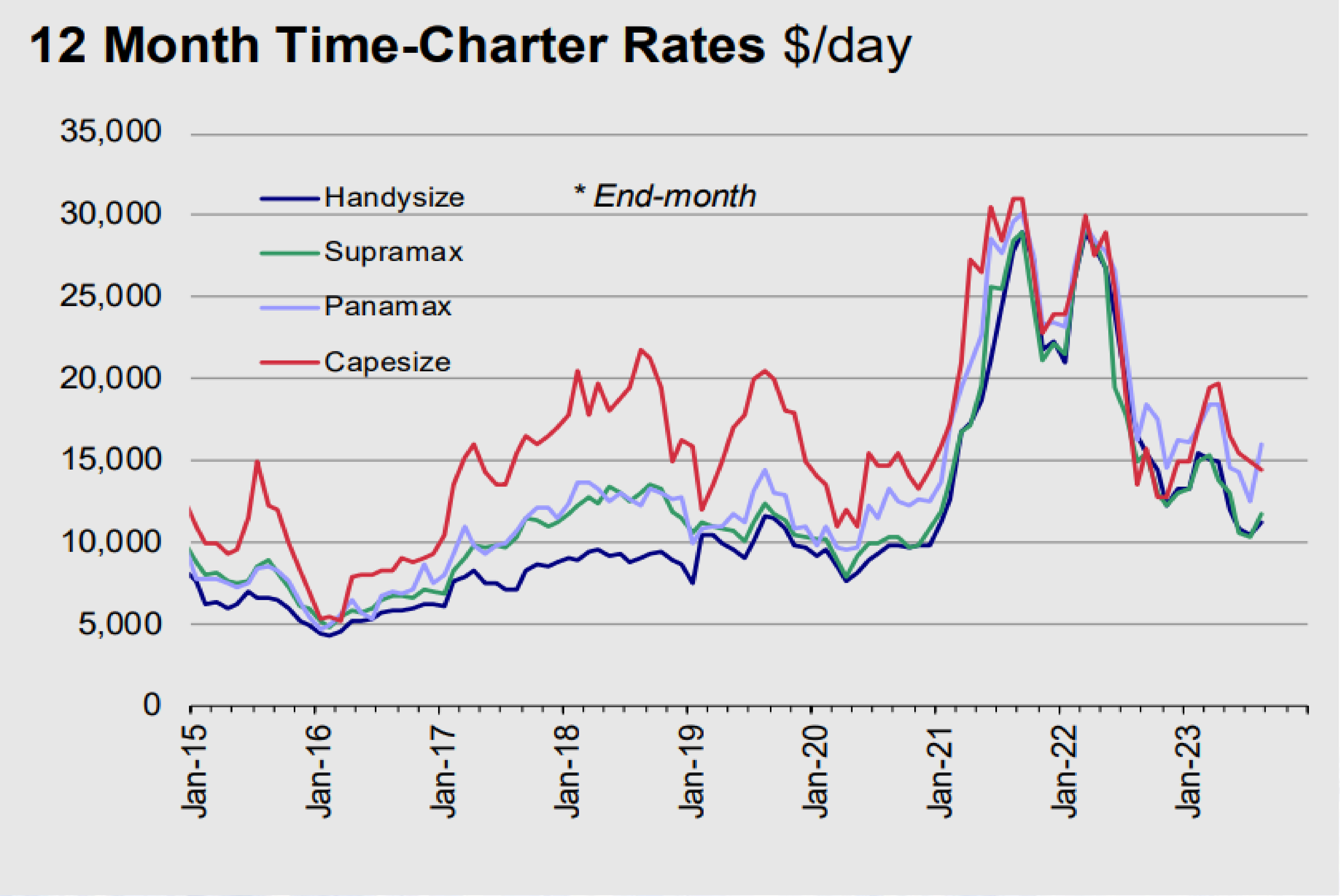
單位：新台幣佰萬元，
惟每股盈餘為元

	2018	2019	2020	2021	2022	~23Q2
營收 Revenue (mn-NT$)	3,367	3,114	2,491	3,226	3,873	1,966
稅後淨利 Net Profit (mn-NT$)	958	601	518	1,320	2,015	309
每股盈餘 EPS (NT$)	2.29	1.44	1.24	3.16	4.83	0.74
負債比率 Debt Ratio (%)	31	32	36	33	36	38

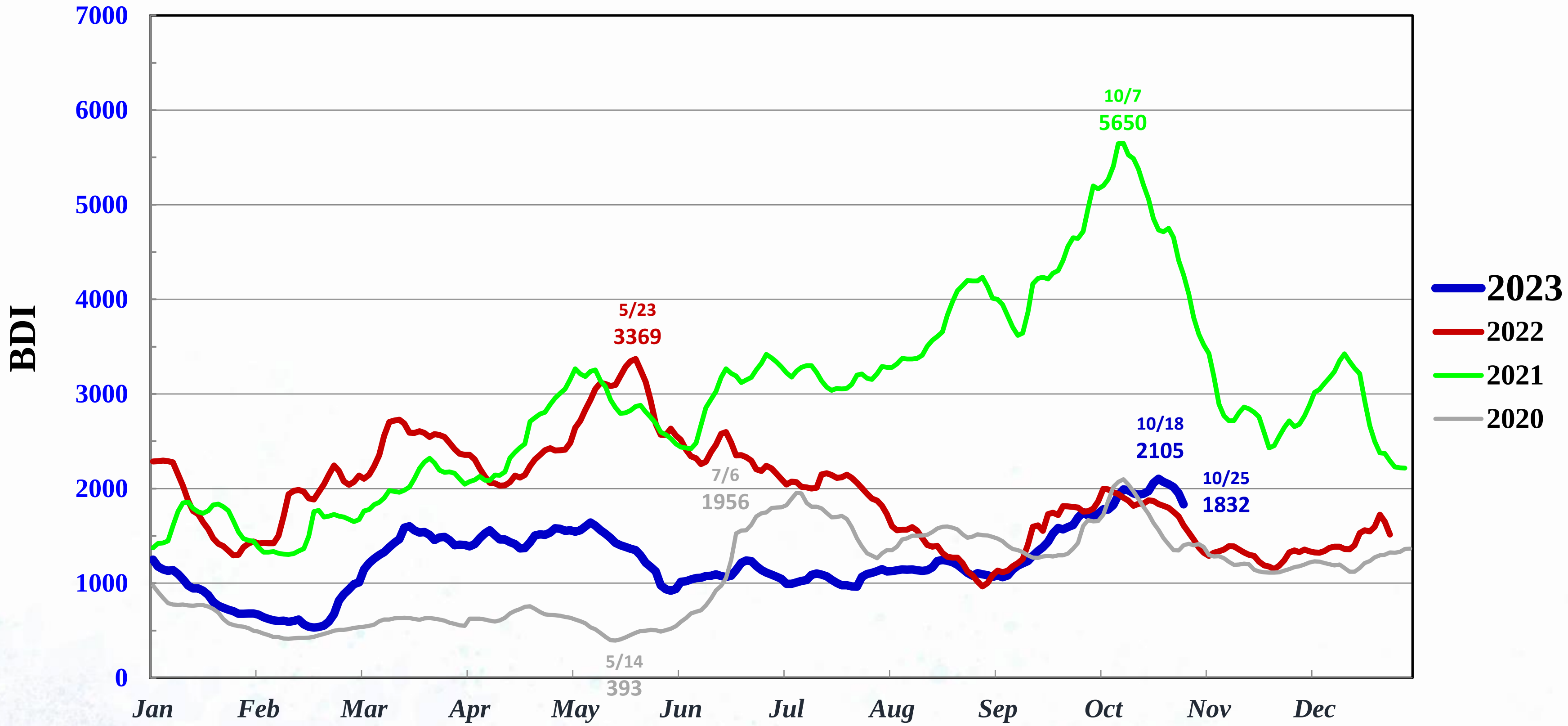
營業收入 Revenue vs. Dry Market



近七年一年期傭船費走勢



乾散貨船市場 Dry Bulk Market Review



Average	2020	2021	2022	2023 (~Oct 25)
BDI	1066	2943	1938	**1236**
BCI	1450	4015	1959	**1678**
BPI	1103	2989	2308	**1339**
BSI	744	2433	2017	**966**

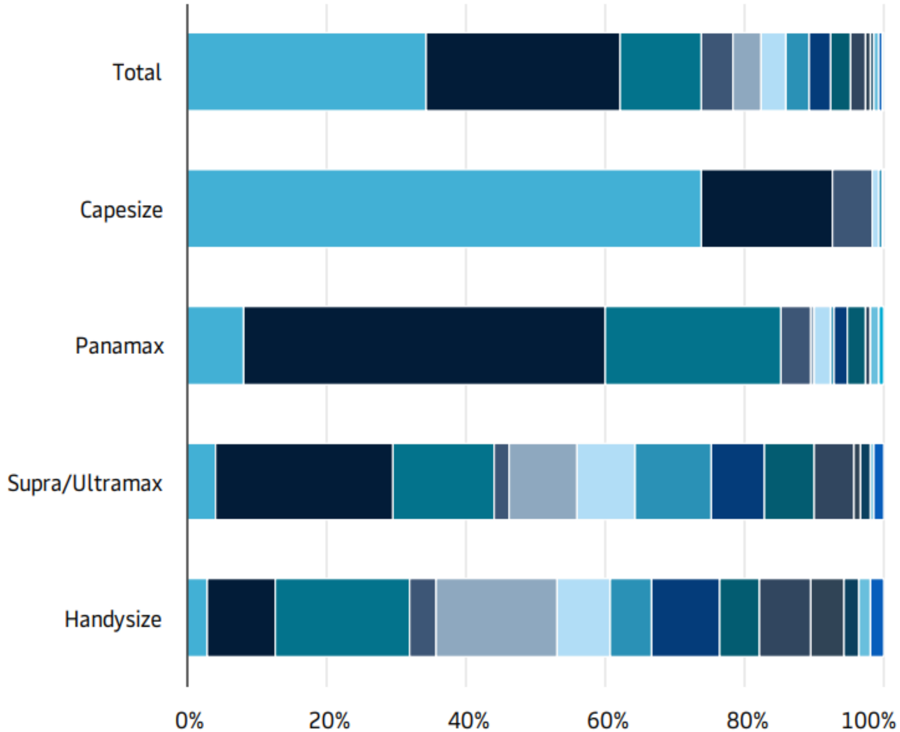
乾散貨船主力貨載 Commodity Dry Bulker Carries

Vessels Share of Commodities

Dependence of specific commodities varies significantly between segments

Commodity mix 2022

Deadweight share of completed voyages



Source: AXS Tradeflow

	Hs	Sx/Ux	Px	Cs	Total
Iron Ore	3%	4%	8%	74%	34%
Coal	10%	26%	52%	19%	28%
Agriculturral goods ;	19%	15%	25%	0%	12%
Alumina/Bauxite	4%	2%	4%	6%	4%
Steel Products	17%	10%	0%	0%	4%
Minerals	8%	8%	2%	1%	4%
Minor Ores	6%	11%	1%	1%	3%
Fertilizers	10%	8%	2%	0%	3%
Construction	6%	7%	3%	0%	3%
Semi-Processed	7%	6%	1%	0%	2%
Wood Products	5%	1%	0%	0%	1%
Other	2%	1%	0%	0%	1%
Unknown & Parcels ;	2%	1%	1%	0%	1%
Other Ferrous	2%	1%	0%	0%	1%
Biomass	0%	0%	1%	0%	0%

Source: AXS Tradeflow

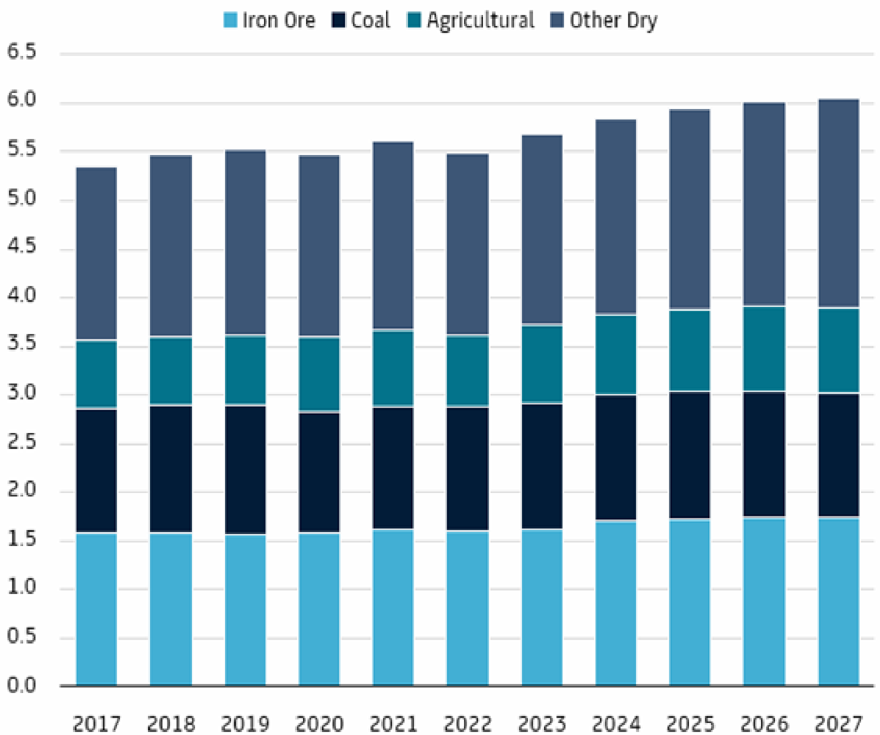
全球乾散貨需求及中國港口船舶等待情況

The Outlook for Dry Bulk Demand and Congestion in Chinese Ports till 2027

Global Demand Outlook & Congestion

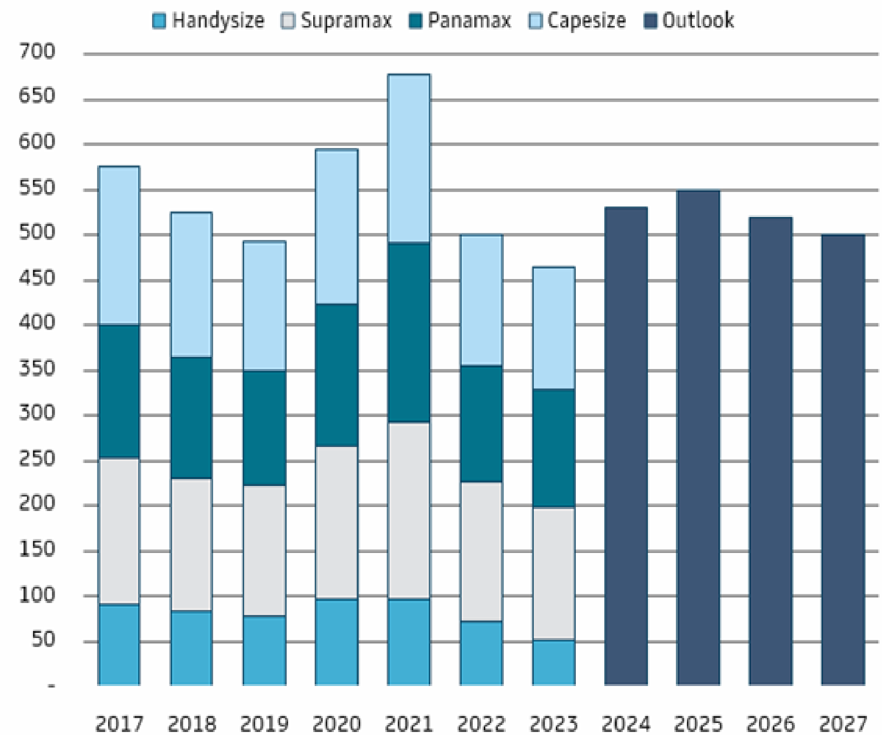
Demand growth will decelerate to 2026, but remain positive; congestion is at a trough

Global dry bulk demand
Bn tonnes



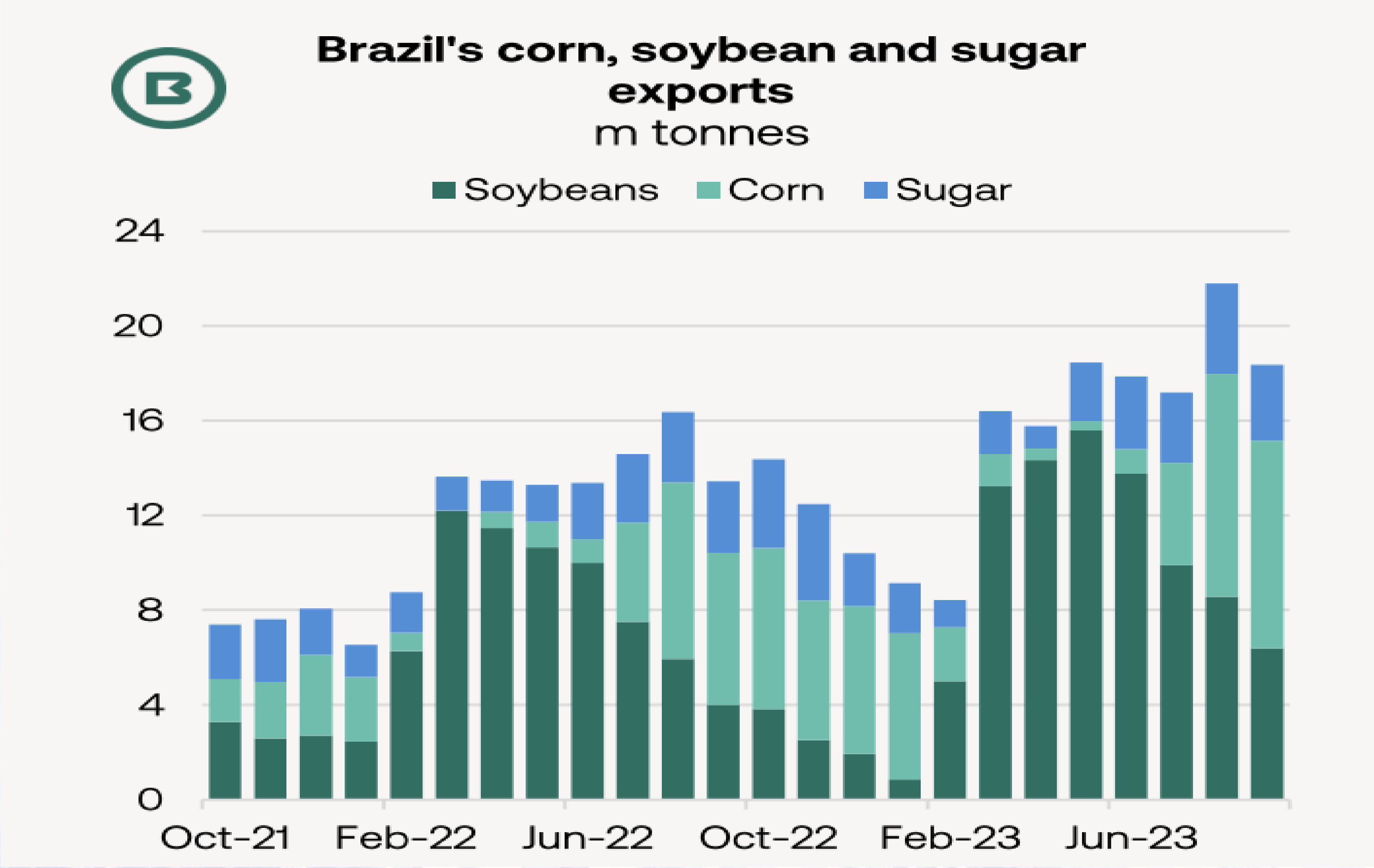
Source: Maersk Broker Insights

Congestion at Chinese ports
# of ships



Source: Maersk Broker Insights

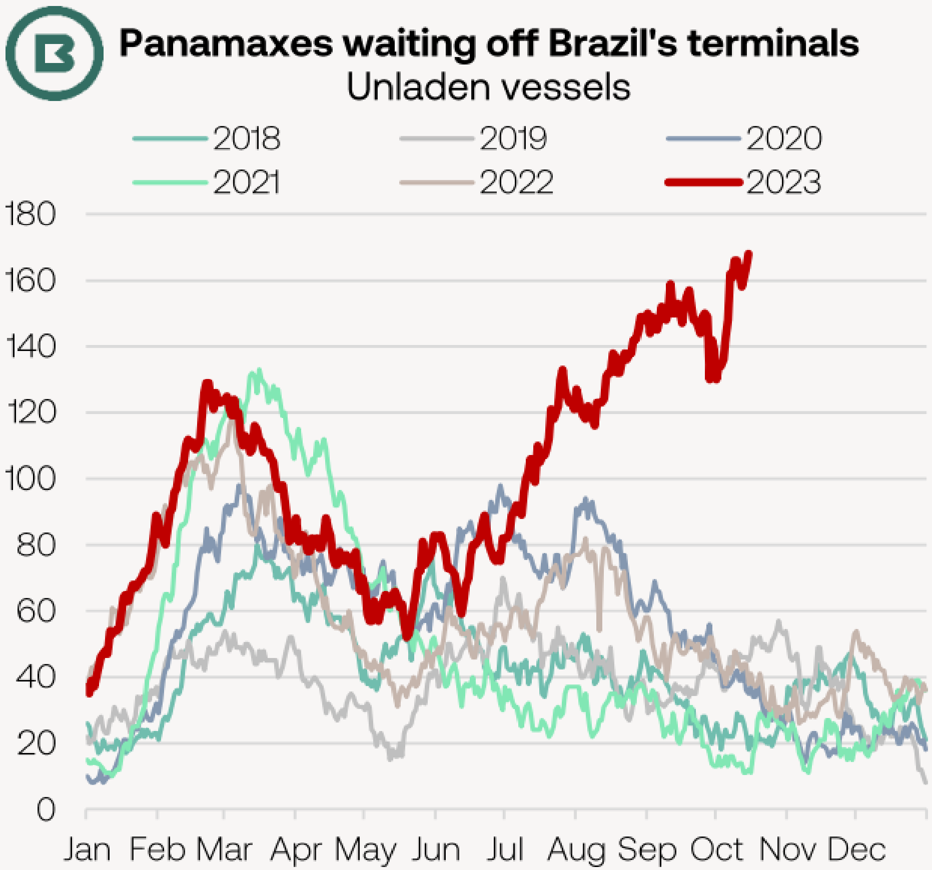
巴西穀物出口量情況

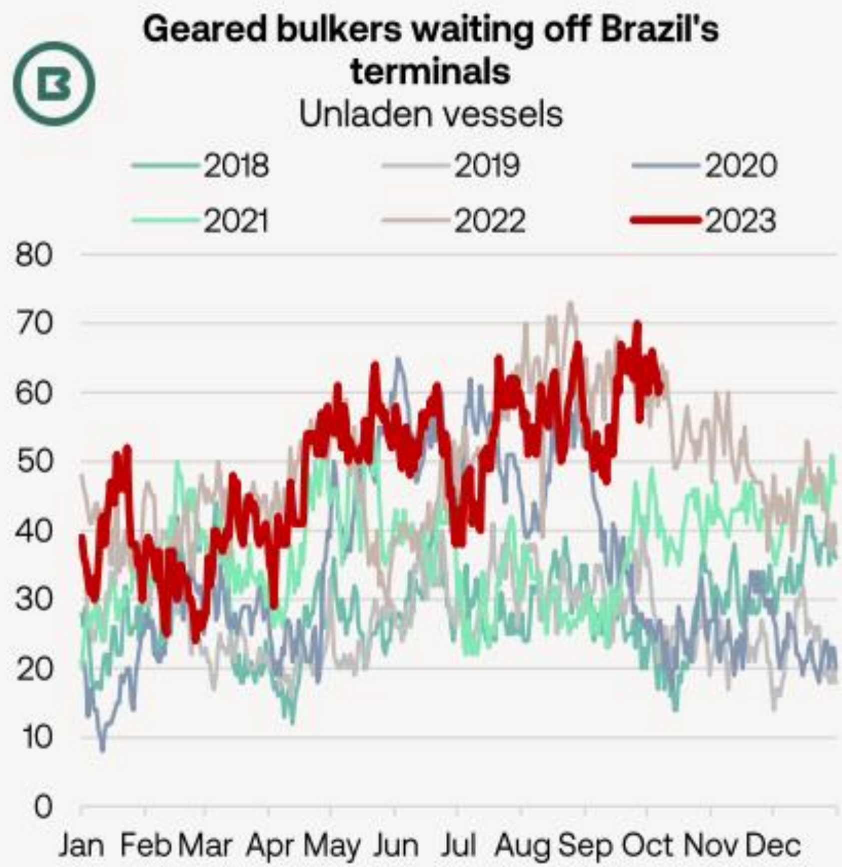


Brazil's corn, soybean and sugar exports
m tonnes
Soybeans
Corn
Sugar
24
20
16
12
8
4
0
Oct-21
Feb-22
Jun-22
Oct-22
Feb-23
Jun-23

巴西港口船舶等待情况

Congestion in Brazil for the past 5 years



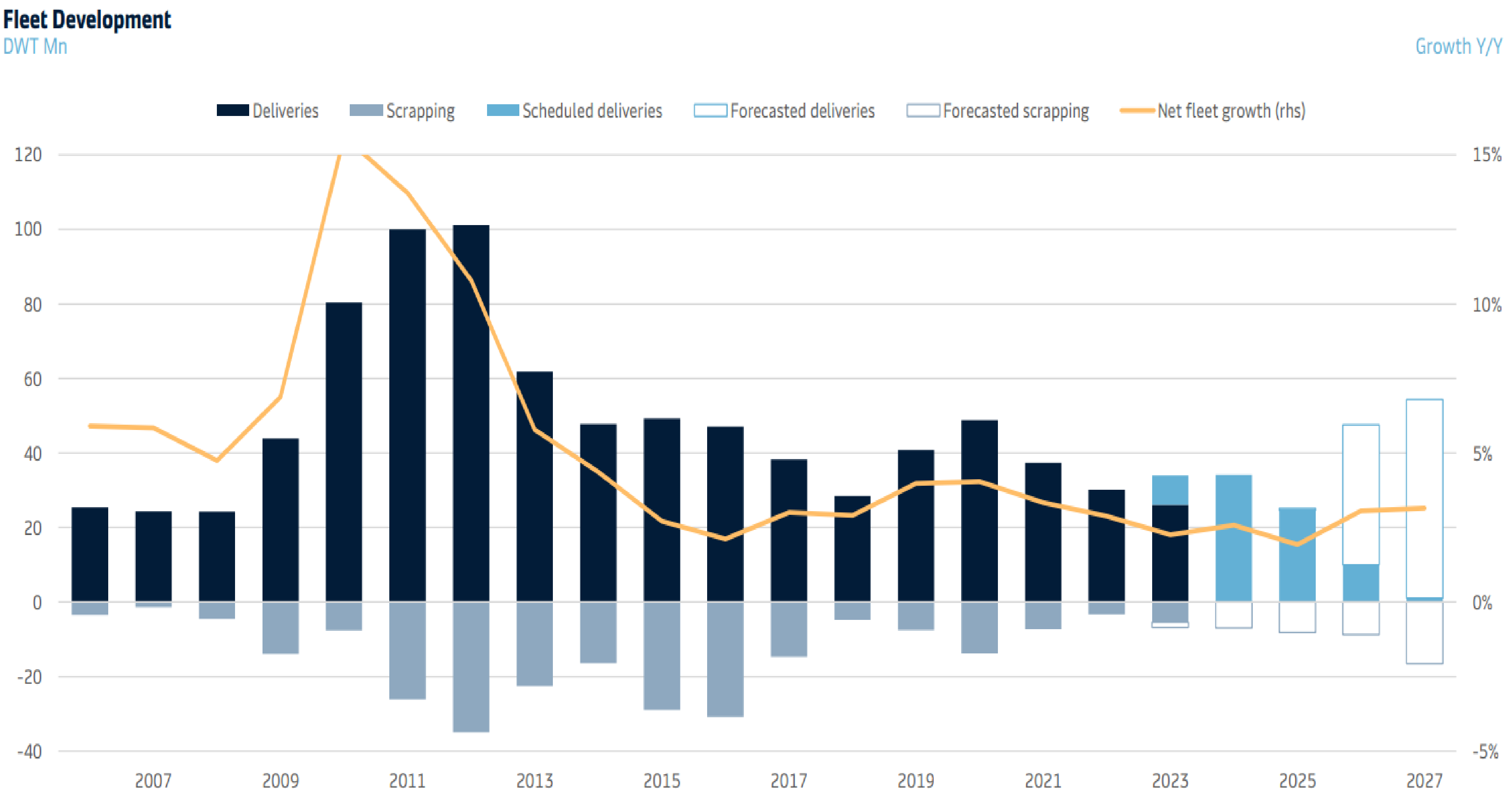


經濟指標 Economic Indicators

Growth Rate (%, y-o-y)	21’	22’	23’(e)	24’ (e)
World GDP	**6.3**	**3.5**	**3.0**	**3.0**
-US	**5.9**	**2.1**	**1.8**	**1.0**
-China	**8.4**	**3.0**	**5.2**	**4.5**
Coal seaborne trade	**1.0**	**0.3**	**4.4**	**NA**
Seaborne Trade - Dry	**3.8**	**-2.8**	**2.6**	**NA**
Dry Fleet	**3.6**	**2.9**	**(est. less) < 3.0**	**NA**

乾散貨輪船噸變化

Dry bulk fleet development

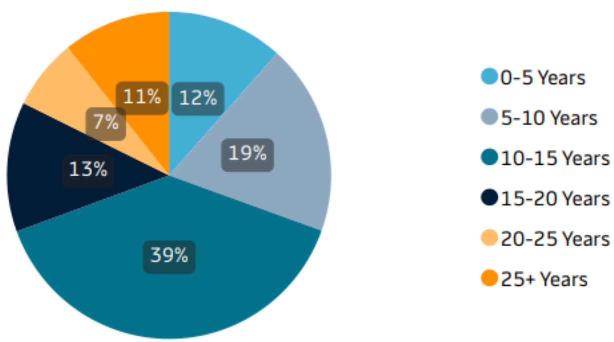


Source: Maersk Broker Insights

乾散貨輪船齡相關分布

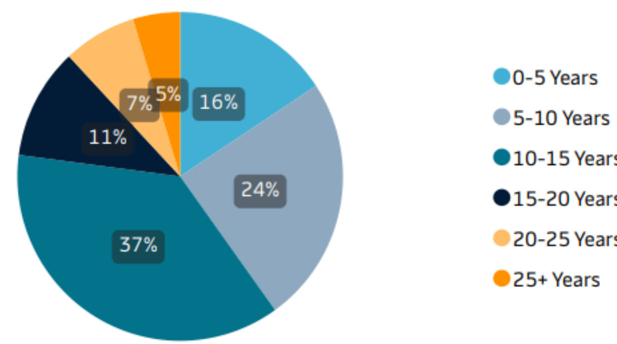
The Age Portfolio of Dry Bulk Carriers

Age Profile: Handysize - 10,000-39,999 DWT



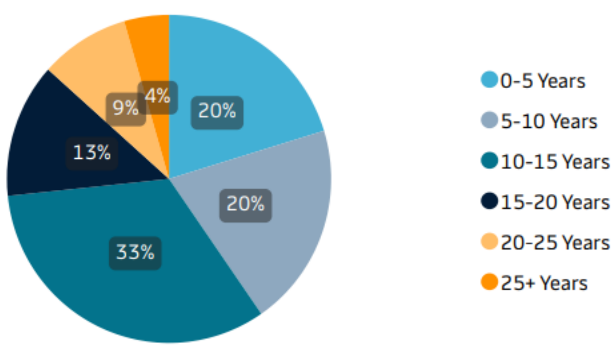
Trading vessels: 3,808

Age Profile: Supramax - 40,000-66,999 DWT



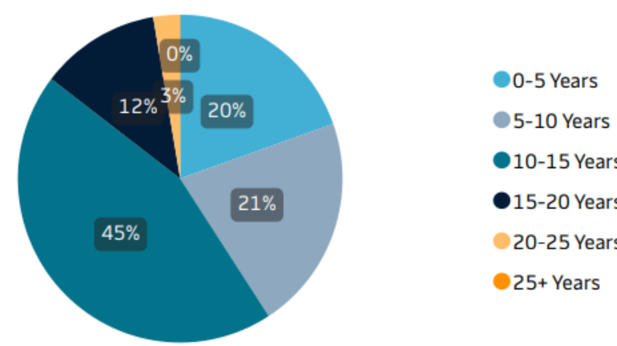
Trading vessels: 3,978

Age Profile: Panamax - 67,000-99,999 DWT



Trading vessels: 3,159

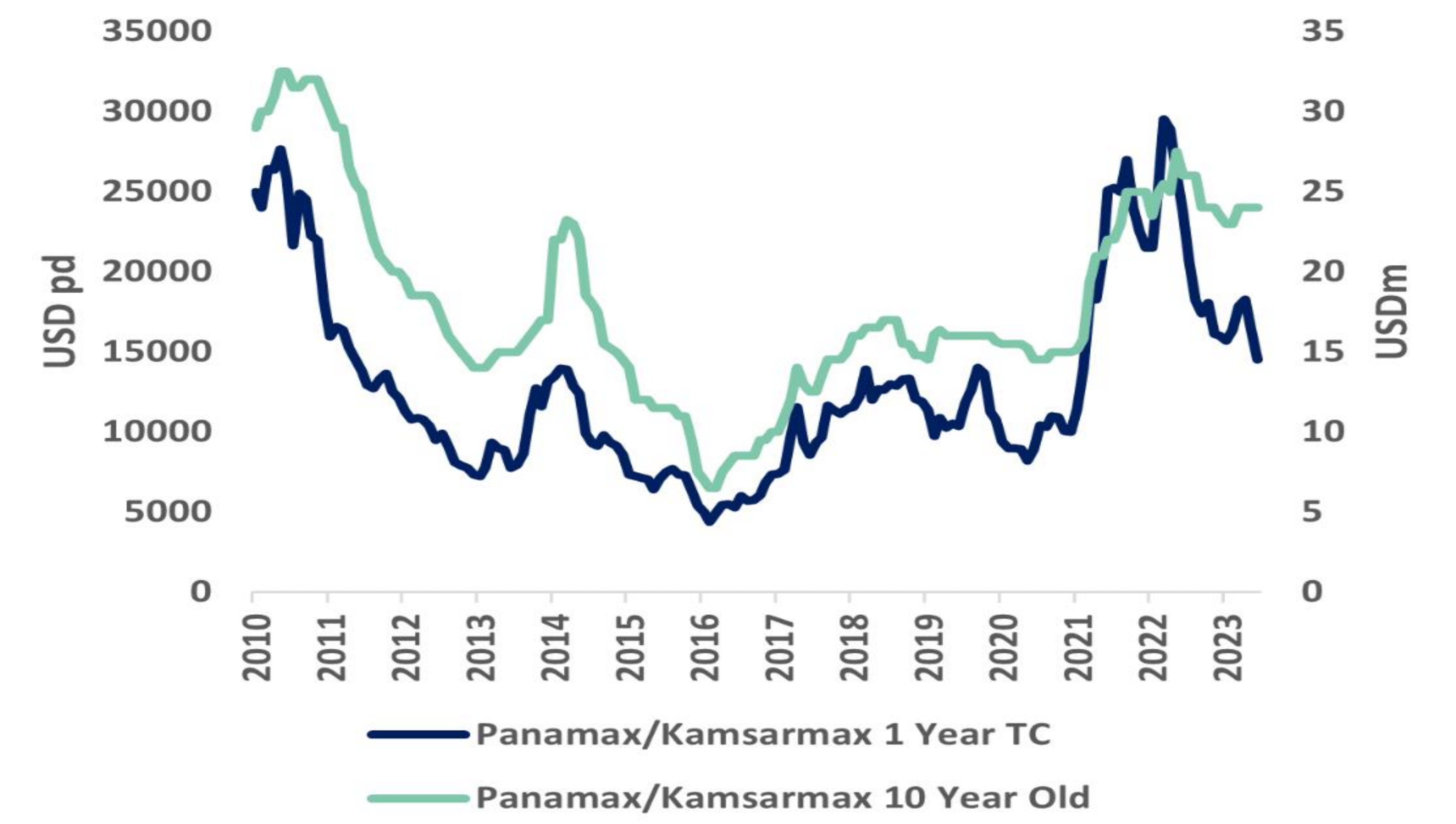
Age Profile: Capesize - 100,000+ DWT



Trading vessels: 1,987

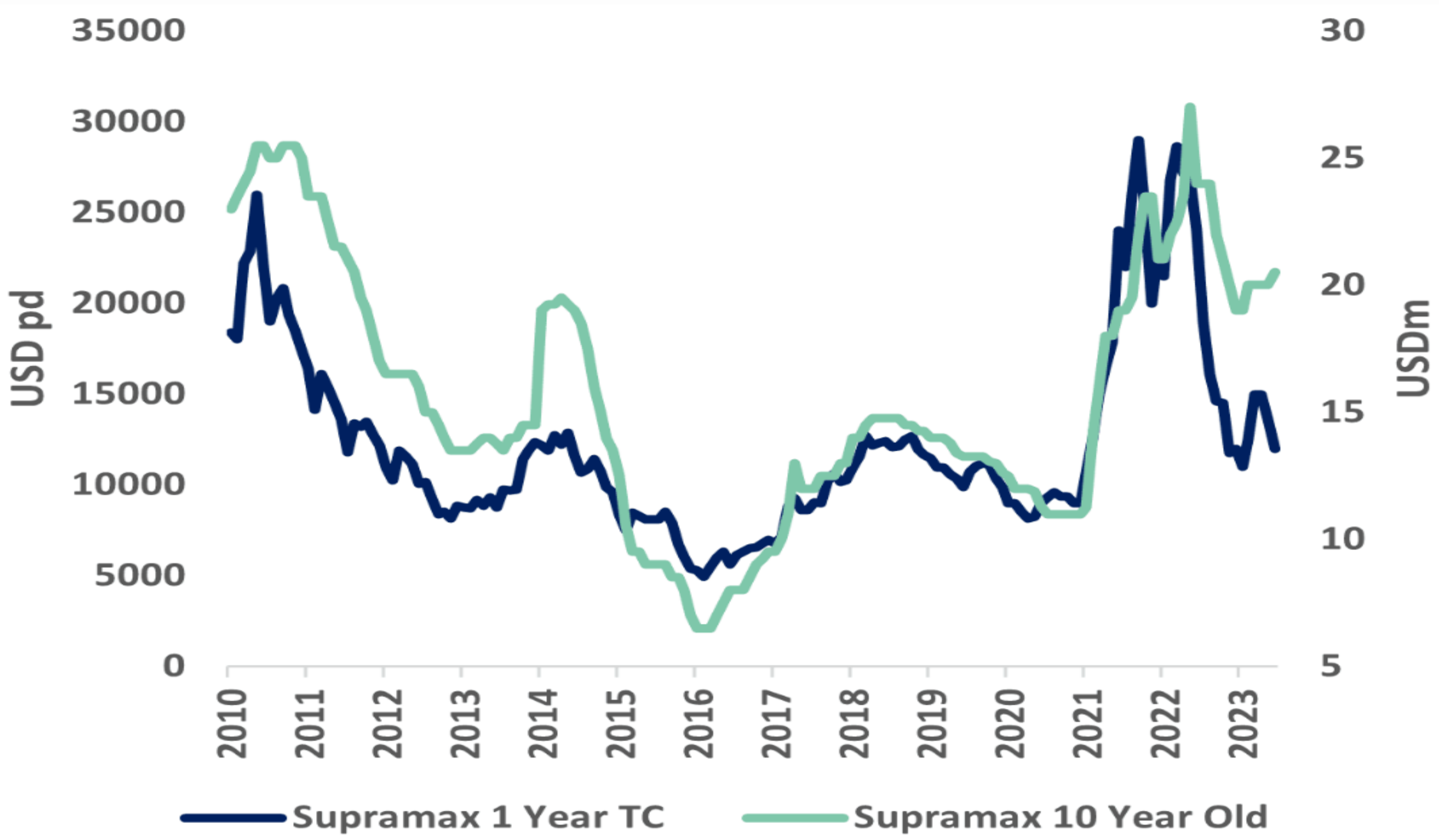
二手船價及一年期租金(a)

The Price of Second Hand Ship and The One Year Hire Rate (a)



二手船價及一年期租金(b)

The Price of Second Hand Ship and The One Year Hire Rate (b)



溫室氣體減排—國際法規要求

GHG Emissions Mitigation-Relevant Regulation Requirements

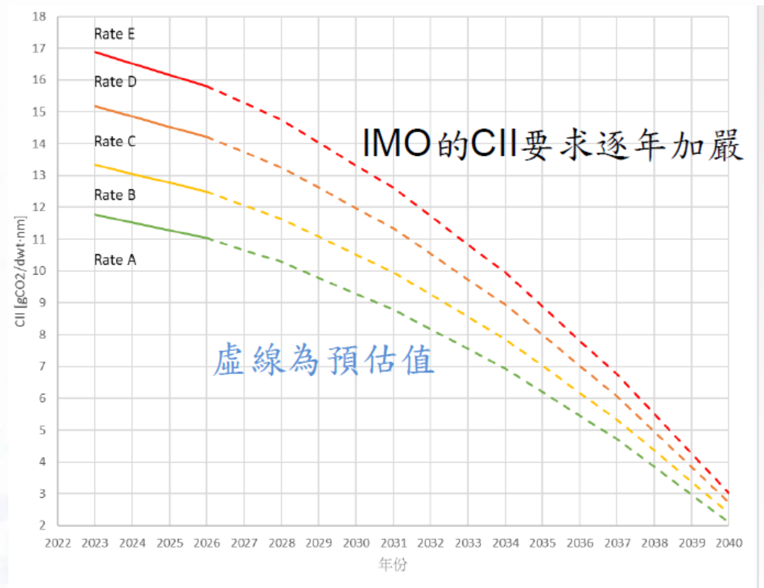
一、IMO MEPC相關規定Relevant Regulations

1. DCS (Data Collecting System), CII (Carbon Intensity Indicator)

$$\text{CII} = \frac{\sum\left(\text{燃料消耗}_{\text{年度}} \times \text{燃料的}CO_2\text{排放係數(Cf)}\right)}{\text{航行距離}_{\text{年度}} \times \text{船舶載運能力(DWT)}}$$

年度	2023	2024-2026	2027-2028	2029-2031	2032-2034	2035-2037	2038-2040
折減因子	-5%	每年 -2%	每年 -3%	每年 -4%	每年 -5%	每年 -6%	每年 -7%

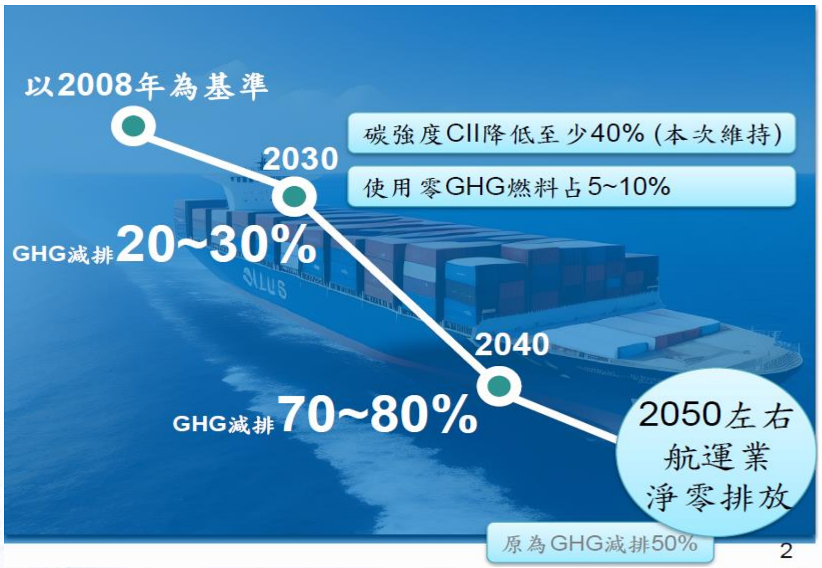
2027年以後的CII折減因子尚未公布，暫為估計值



溫室氣體減排—國際法規要求

GHG Emissions Mitigation-Relevant Regulation Requirements

2. IMO MEPC 80 採納溫室氣體減少排放策略Adopting Strategy



短期措施

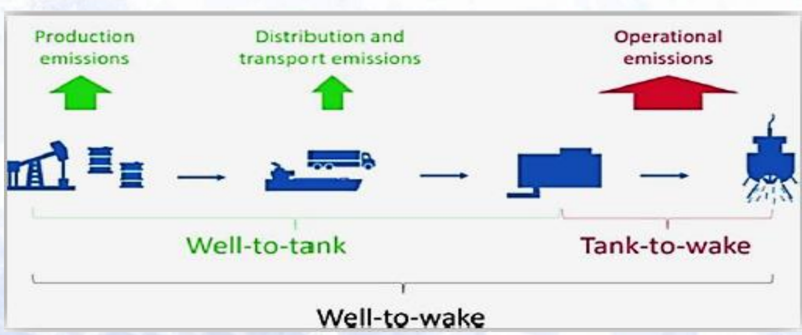
EEXI、CII：

$$\frac{gCO_2}{DWT \cdot nm}$$

中期技術性

措施GFS：

$$\frac{gCO_2e}{MJ}$$



預計於MEPC 81 (2024春季)確定措施，並於2027年生效

Estimated MEPC 81 (2024 Spring) define measures, and 2027 coming into effect

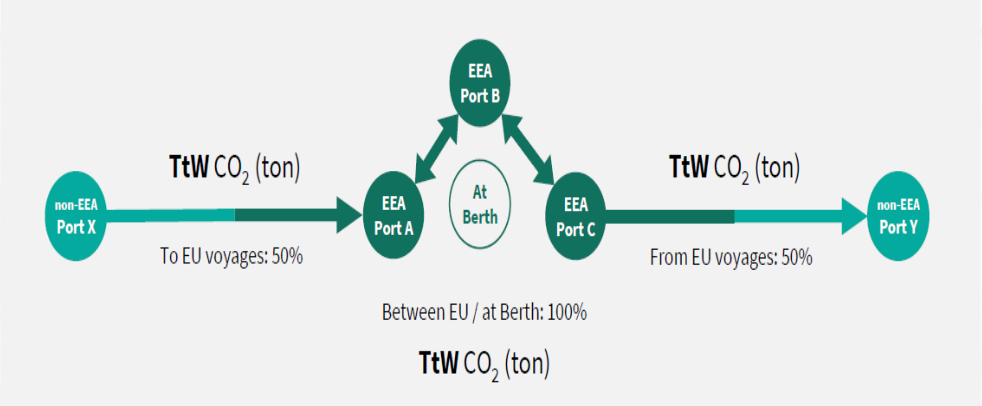
溫室氣體減排—國際法規要求

GHG Emissions Mitigation-Relevant Regulation Requirements

二、EU相關減少溫室氣體之要求

1. EU MRV (Monitoring, Recording, Verification), 2018.01.01 生效實施 Coming into Effect

2. EU ETS (Emissions Trading System), 2024.01.01生效實施 Coming into Effect



Start date

Requirement for shipping starts from 01.01.2024 and each year thereafter.

Phased-in

Phase-in period of:

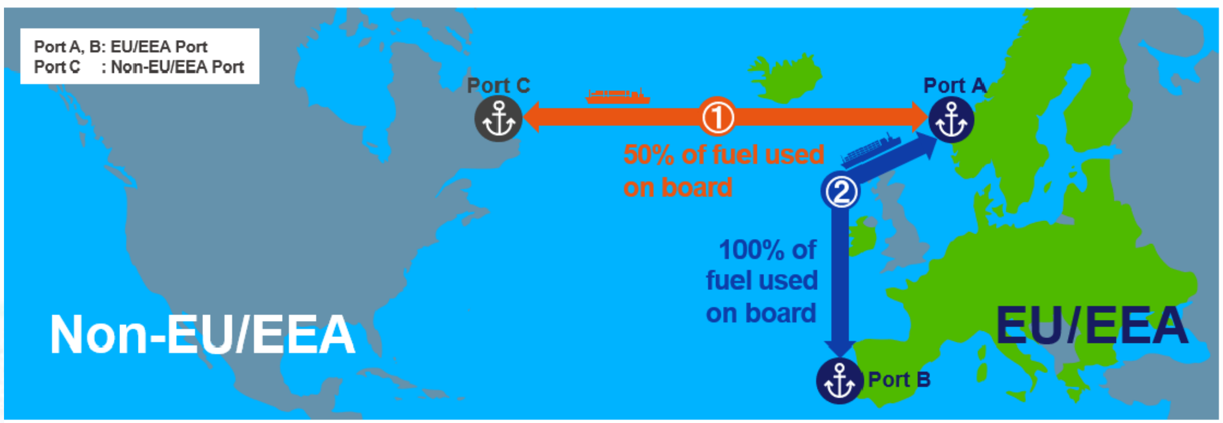
2024 40%
2025 70%
2026 100%

Ex. 40% of emissions reported for year 2024, payable in 2025.

溫室氣體減排—國際法規要求

GHG Emissions Mitigation-Relevant Regulation Requirements

3. Fuel EU Maritime, 2025.01.01 生效實施 Coming into Effect



Energy used

WtT + TtW

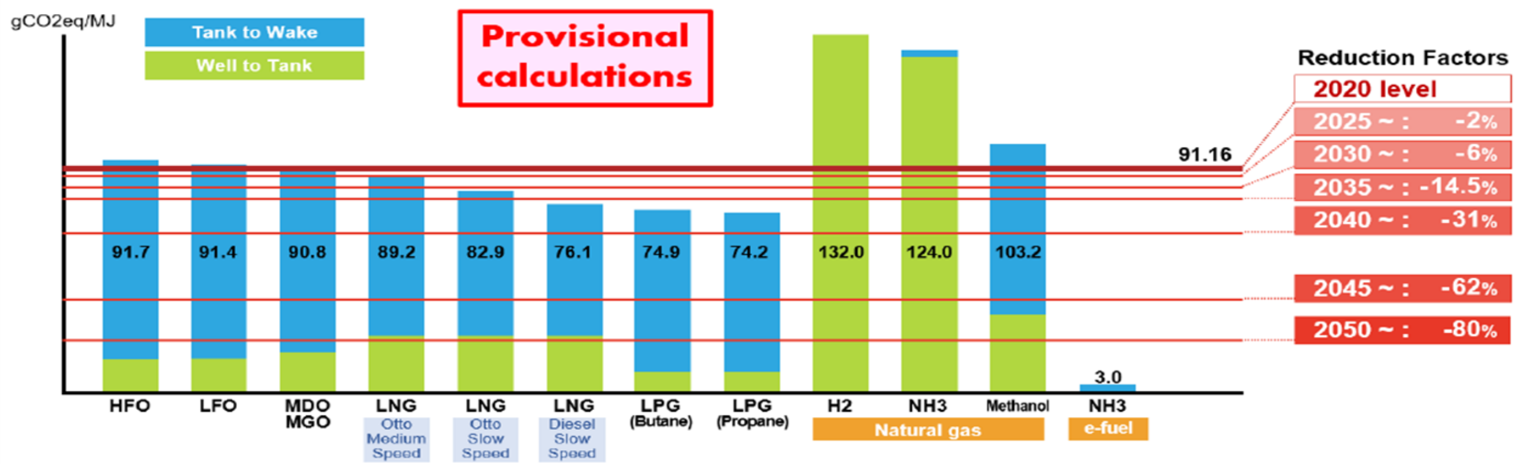
GHG intensity

(gCO_{2eq}/MJ)

溫室氣體減排—國際法規要求

GHG Emissions Mitigation-Relevant Regulation Requirements

Overview of GHG intensity of each fuel and limits



Outline of the calculation of the penalty

$$\frac{\text{GHG intensity limit of the year} - \text{GHG intensity of the ship}}{\text{GHG intensity of the ship}} \times \text{Energy used on board [MJ]} \times \text{Penalty per energy used [≒0.06EUR/MJ]}$$

溫室氣體減排—對全球海運影響
GHG Emissions Mitigation-Impact on global shipping

一、加速船舶汰換 Speeding up ship replacement

二、船速下降 Slowing down ship speed

三、供給船噸減少 Reducing ship supply

四、使用傳統燃料之新型節能船舶，從Tank to Wake 溫室氣體排放量的角度，在船舶造價、運維費用、燃料添加等方面仍具有相當的市場競爭優勢

From the point of view of Tank to Wake GHG emissions, the new energy-saving ships using traditional fuel still have considerable market competitive advantages in ship building cost, operation and maintenance costs, bunkering and so on.

溫室氣體減排—公司將如何因應
GHG Emissions Mitigation-How to Cope With

一、持續船舶汰換 、建造節能船舶

Continuous ship replacement by building Eco ships

二、加強船舶操作、維護管理

Strengthen ship operation and maintenance management

三、偕同租家積極面對

Cooperative positively with the Charterers

展望與策略 Prospect & Actions

一、乾散貨船運市場 The Dry Bulk Market

有利因素 The advantage factors：

新船船噸供給有限、因EEXI、CII及歐盟ETS促使船速下降等因素將導致船噸供給成長減少。穀物及肥料需求隨全球人口增長，需求仍穩定成長。

Due to the limited new tonnage along with EEXI, CII and EU ETS resulting in reducing ship speed, the tonnage growth would be decreased. The demand of grain and fertilizer is in line with the global population growth, so is the demand of bulker tonnage.

展望與策略 Prospect & Actions

一、乾散貨船運市場 The Dry Bulk Market

不利因素 The disadvantage factors：

各國通貨膨漲高漲，高利率之資金成本削弱消費需求，中國港口船舶等待時間回復至疫情前水準。

The worldwide high inflation along with the high interest rate would reduce the demand of consumption . The port congestion in China is back to normality as the condition prior to the covid period.

綜合有利及不利因素，未來中、小型乾散貨船型運價看好。

In view of the abovementioned, the freight market of small and mid-size bulker looks rosy in the future.

展望與策略 Prospect & Actions

二、港勤及代營業務持續

The Continuation of Habour Service And Management Business

中油觀塘港LNG拖船25年合約（建造5艘拖 船，2艘交通船），已於今年4月完成交船營運。將持續拓展相關代營業務。

The 25-year contract of harbor service for CPC Taiwan at Kuan Tung Industrial port (5 tugboats and 2 launch boats) has commenced operation after all new ships were delivered in April this year. We would keep expanding the management business.

展望與策略 Prospect & Actions

三、船舶年輕化、效能至上

Ship Replacement And Efficiency Improvement

今年淘汰一艘散裝船，新船在建4艘，另外新散裝船訂造亦在規劃中

This year one old bulker was dispose of. Four newbuildings are on order book. Assessing order of new bulker.

四、新客輪澎湖輪 New Ferry, Penghu

澎湖輪於2023年9月開始營運，加強行銷擴展客源，增加營收。

The new ferry, Penghu, commenced operation this September. We would strengthen marketing and expand the revenue.

Thank you for your attention

台灣航業股份有限公司

Taiwan Navigation Co., Ltd