

National Taiwan Ocean University
Department of Shipping & Transportation Management
Undergraduate Program

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Course #E4102111
Tramp Shipping Management

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I. 不定期航運的性質(The nature of tramp shipping)

- 一、不定期航運(Tramp shipping):係指經營無固定班期，亦無固定航線、停靠港口、運價(或租金)，端視貨物流動之需要而決定其航程之海上運送事業。
- 二、多以租傭船方式(chartering)營運，船東將船舶出租給傭船人，而傭船人向船東承租船舶，雙方在洽定租傭船契約的過程中，必經雙方討價還價(negotiate, negotiation)的過程，通常透過船東與傭船人各自的經紀商(Brokers, Chartering brokers)在雙方之間仲介撮合==>不定期航運業中的當事人:

※ OWNERS 或 SHIPOWNER :

- 船東、船舶所有人、船方

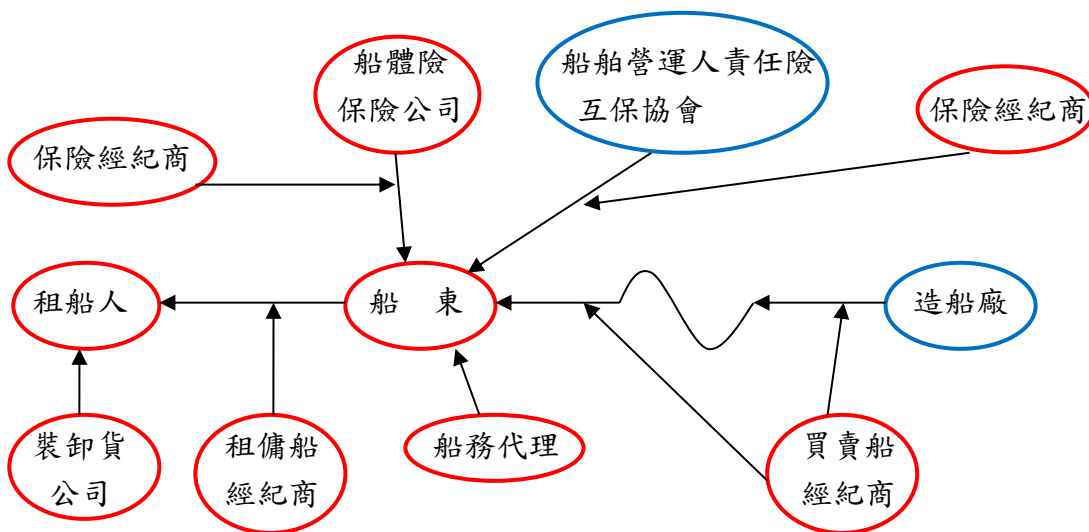
※ CHARTERERS :

- 租船人、傭船人、租商、租方

※ BROKERS 或 CHARTERING BROKERS :

經紀商，租船經紀人，傭船經紀人，租傭船經紀人，租傭船仲介商等，非不定期航運業中的當事人，只是扮演撮合當事人雙方進行協商(Negotiation)、洽訂(fixing)與履約(performing)的仲介角色。

不定期航運的產業鏈關係



- 三、為個別託運人或客戶的特定貨運及航線服務，每航次多航行不同航線與港口，每航次裝卸的港口數目較少；
- 四、每筆貨物託運或每趟航程(每航次)均須洽商簽訂特定契約，船東與傭船人雙方的權利與義務是以所簽訂的契約為依據，這個就稱為傭船契約(Charter Party)，(註：定期航運公司向其他貨櫃船的船東租用貨櫃船來營運時，亦須與船東簽訂此類的傭船契約)；
- 五、不定期航運業務中所簽發的載貨證券，除了供出口商押匯的用途外，如果該載貨證券之持有人為傭船人時，該載貨證券僅具貨物收據及物權證書的功能；但若轉讓給傭船人以外之第三人時，則具備契約證明的功能；

- 六、不定期航運業務中裝卸貨物的成本皆不由船方負擔，而由貨方負擔，也就是 Free in and out, (F.I.O.) 條件；
- 七、代理行：因船舶所停泊的港口並不固定，船東無設立分支機構或委託長期代理行的需要，多係臨時委託單次代理業務予船務代理行，委託代理行代辦船舶進出口、貨物裝卸、油水供應、或船舶修理等業務；
- 八、不定期航運業，業務比較簡單，船隊規模無需很大，亦無需僱用大量攬貨人員，故公司之組織亦較簡單；
- 九、不定期航運業務之經營，以追求①儘量增加船舶載量並獲得滿載，②快速裝卸，以減少停泊港口之時間與費用，③減少船舶故障以增加船舶利用率，④節省燃料消耗，以降低成本，獲取盈利；
- 十、船東必須隨時注意基礎產業的消息與變化，並具備靈通之市場資訊(如各種運費指數)，與精確之預測及成本估算，以就不同業務加以取捨，因此契約的簽訂及船舶的調度關係盈虧至鉅；
- 十一、不定期航運與散裝航運(Bulk shipping)
- (一)、所謂散裝航運係指為個別託運人承載散裝大宗物資(bulk cargoes)的船運服務，此類大宗物資貨物包括民生及工業基本原料之大宗物資如煤炭(coal)、鐵礦砂(iron ore)、穀物(grain, 黃豆 soybean、飼料玉米 corn/maize、大麥 barley、小麥 wheat、高粱 milo)、肥料(fertilizer, MOP-muriate of potash)、鹽礦(rock salt)、木材(log, timber, plywood)、硫磺(sulphur)、鋼材(steel products)、原油(crude oil)、液化天然氣(LNG-liquefied natural gas)等。這些貨物的運輸有一定流向，啟運有季節性，待運貨物數量龐大，無須快速運達，單價低廉，運費負擔能力較低；
- (二)、一般而言，此類散裝航運無固定班期與航線，端視貨物運送地點及時間決定其航程，因此皆以不定期航運的方式洽訂與經營。
- (三)、這些散裝貨物不需包裝，加上使用噸位大的散裝船舶，每批或每船次貨物皆以大貨量裝載，船舶航速較慢，運輸成本較低，理論上的單位運價通常較定期船運價低廉，然而這些貨物的海上運輸通常並不以裝箱後裝櫃來運送，即單純以散裝的方式運送。
- (四)、由於受全球景氣、天災、戰爭及各國的需求等因素影響甚大，故其業務量之起伏波動較貨櫃航運激烈，運價漲跌變化相當迅速且不穩定(the freight rates are very volatile)。
- (五)、使用之船舶以專用之乾散裝貨船(dry bulk carriers)、液體貨船(tankers)或氣槽船(gas carriers)為主要運送工具。
- 十二、不定期航運市場中亦存在有各種遠期運費協定，即運費期貨與選擇權等無實體交運的運費衍生性商品(Freight Derivatives)可供船東與傭船人按其各自實際持有不同待租船舶或待運貨物的部位來操作避險；
- 十三、不定期航運市場中亦存在有類似在定期航運中之運費同盟之機構稱 Shipping Pool(聯合經營組織)，組成這種 Shipping Pool 的目的在統籌船舶的調度與增加攬貨能力(提升對客戶的議價能力)，以使船東不須為加入 Pool 的船舶尋覓運務或租約，並能獲取最好的利潤。

II. 不定期航運的經營船型(The ship type used in tramp shipping)

一、乾散裝貨輪(Dry bulk carriers, 又稱「散裝船」, bulk carriers 或 bulkers) :

※General cargo ships, breakbulk vessels, multi-purpose vessels, tweendeckers (flush tweendeckers) : 散雜貨船、多用途船、雙層甲板船(第二層甲板為無障礙空間的雙層甲板船)。傳統上約為 12,000~18,000 載重噸，然而這一載重噸級的雙層甲板船舶一般都正在老化與消失之中，大部份現代化的遠洋雙層甲板船的大小在 2 萬載重噸上下。現代化的雙層甲板船則經常被稱為多用途船，有可摺疊的第二層甲板、多變化、可與較小型散裝船舶競爭的能力。這類船舶的設計是可用以裝運包裝好，但非單位化、非貨櫃化，且不同形狀、不同種類、不同尺寸與不同重量、零散件貨(package cargoes)的船舶，這些貨物可能為袋裝(in bags)、捆包(in bales)、箱裝(in boxes, in cartons)、桶裝(in barrels, in drums)、集貨墊板裝(in pallets)、粗麻袋裝(in sacks)與車輛(Vehicles)等、且尺寸過大或重量過重不適用於裝入一般貨櫃或平板貨櫃的貨物。對於這種貨物的貨主而言，每次交運的貨物量不足以讓全船滿載，但其貨物又不適用於裝入一般貨櫃或平板貨櫃，因此這種船型的船東發展出一種以承攬小批貨載集批運送(Parcelling)為主的運送服務，完全適合特定貨主的需求。與貨櫃船相比較，散雜貨船舶需花更長的時間與更多的人力來裝貨與卸貨，因為裝運的貨物可能需要一件一件裝卸。這種型態的航運是肇始自古代的航運型式，因此此類船舶亦有一稱為傳統散雜貨船，但是有些這類船舶也設計成可裝運散雜貨、貨櫃及散裝貨物。

※輕便型(Handy size carriers) : 載重噸位 ≤ 42,000 公噸

※輕便極限型(Handymax size carriers) : 載重噸位 ≈ 51,000 公噸

※超級極限型(Supramax carriers) : 載重噸位 ≈ 58,000 公噸

**Ultramax carriers : 載重噸位 ≈ 61,000~63,500 公噸

<https://www.oldendorff.com/pages/fleet/ultramax>

以上之乾散裝貨輪皆具備裝卸貨用之吊桿(derricks)或大型吊車(gears, cranes 即起重機)，並可附裝抓斗(grabs)，以因應前往未建置岸上裝卸貨設備的碼頭或港口裝卸貨，此類船舶稱為附(或"帶")吊桿散裝船 geared bulk carrier。

以下船型，則屬中大型乾散裝貨輪，皆需倚賴岸上自動化且速度快的裝卸貨設備裝卸貨物，因此船上並未配置上述吊桿或大型吊車，即稱無吊桿乾散裝貨輪，gearless bulk carriers。

※巴拿馬極限型(Panamax carrier) : 載重噸位 ≤ 74,000 公噸

**Kamsar max carriers : 載重噸位 ≈ 82,500 公噸

※超巴拿馬極限型(Post panamax carriers) : 載重噸位 ≈ 95,000 公噸

**輕便海岬型散裝船(Handycape carriers, also "baby cape") : 載重噸位 ≈ 116,000 公噸

※海岬型(Cape size carriers) : 載重噸位 ≈ 180,000 公噸

**Newcastle max carriers : 載重噸位 ≈ 200,000 公噸

※大型礦砂運輸船(VLOC, very large ore carriers ; VLBC, very large bulk carriers) :

載重噸位 $\approx 230,000$ 公噸

※超大型礦砂運輸船(ULOC, ultra large ore carriers) : 載重噸位 $\geq 300,000$ 公噸

※Valemax (Chinamax): 載重噸位 $> 400,000$ 公噸

<https://en.wikipedia.org/wiki/Valemax>

<https://en.wikipedia.org/wiki/Chinamax>

※Specialized Bulk Carriers 特殊散裝船舶:

Loggers : 原木船

Lumber carriers : 木材船

Woodchip carriers : 木屑船

Bulk cement carriers : 散裝水泥專用船

Great Lakes Ships & Carriers :

1. Lakers 大湖區用船 - (北美)只適用於大湖區湖內間航行用的船舶

2. Salties - 適於行駛進入北美大湖區的航海用船舶

※近洋航運船: 小於 10,000 載重噸、用於沿岸貿易的船舶，這些船舶有的有吊

車，有的有配置吊桿，有的則完全沒有任何貨物裝卸設備。現代的近洋航運船東並不一定將其所屬的這型船舶自限於沿岸的貿易，而有可能離開平常營運的沿岸區域，遠到他鄉攬運貨載。事實上，他們對以小批貨載集批交運(Parceling) 為的託運人與貿易商提供了海運運送方式的寶貴選擇。因此在未來，這類近洋航運的小型船隻被有吸引力的海運費引誘，離開他們正常營運的沿岸水域，以一種單純不定期船的方式在全世界的海域來營運，將會越來越普遍。

二、液體貨船(Tankers)，俗稱"油輪"

※Handy size tankers : 輕便型油輪

載重噸位 $\leq 35,000$ 公噸，又稱 **Parcel tankers** 或 **Drug stores**，可同時承載若干批不同的液體貨物，其中

Small tankers : 小型油輪，載重噸位 $< 25,000$ 公噸

From: Projects <projects@[REDACTED].com>
Sent: Tuesday, July 24, 2018 3:11 PM
To: undisclosed-recipients:
Subject: SUS Tanker for sale Inspectable Japan next week.

Direct from close owners, we can secure for sale the following Stainless Steel (316L) chemical tanker.

MT " [REDACTED] GENESIS "
DWT 14,281 MT on 8.81 M
Built 2005 Asakawa Zosen K.K. - Imabari
LOA 134.16 M Beam 20.50 M
NK Class - SS 2020-04-25 / DD 2018-04-22
B&W 7S35MC 7,070 BHP @ 173 RPM
20 Tanks 15,615 CBM
Segregations: 20
Coated / Coiled
Cargo Pumps 10 @ 300 M3/hr, Cargo Pumps 10 @ 200 M3/hr
LDT 4,289 MT
IMO II IMO III

Inspection is invited in Japan (Yokohama and/or Kobe and/or Tokuyama) on/abt 1st - 2nd of August (reverting / sub to change).

Further dets here on request.

B rgs

[William Gauld](#) | Partner | Tanker Projects

[REDACTED] PARTNERS (UK) LTD | 40 Gracechurch Street, London, EC3V 0BT

Phone: +44 20 [REDACTED] 2568 | Mobile: +44 [REDACTED] 320216 | [REDACTED]@[REDACTED].com

Intermediate tankers : 中型油輪 , 25,000 公噸 ≤ 載重噸位 < 35,000 公噸
※Mid-range tankers : 中程油輪
(<https://www.balticexchange.com/en/who-we-are/guide-to-modern-shipping/main-vessel-types.html>)

※MR1：中程 1 型油輪，35,000 公噸 ≤ 載重噸位 < 44,999 公噸

※MR2：中程 2 型油輪，45,000 公噸 ≤ 載重噸位 < 54,999 公噸

※Clean tankers: LR1 (long range type 1)，長程 1 型油輪；

Dirty tankers: Panamax：

60,000 公噸 ≤ 載重噸位 ≤ 80,000 公噸

※Clean tankers: LR2 (long range type 2)，長程 2 型油輪；

Dirty tankers: Aframax 阿芙拉極限型油輪：

90,000 公噸 ≤ 載重噸位 ≤ 120,000 公噸

(<https://en.wikipedia.org/wiki/Aframax>)

Aframax 船是指小於 12 萬公噸的油輪，寬度不超過 32.31 公尺，因此可以通過舊巴拿馬運河。Aframax 這一名稱是根據平均運費評估(Average Freight Rate Assessment, AFRA)系統而來，這是 1954 年由殼牌石油(Shell Oil)所設計，將油輪運輸契約條件予以標準化的運費率系統。

(<http://maritime-connector.com/wiki/aframax/>)

由於 Aframax 油輪的大小適當，可以服務於世界上大多數因為沒有非常大的港口或沒有近海的離岸石油碼頭設施以容納大型原油運輸船(VLCC)及超大型原油運輸船(ULCC)的地區。特別是一些非石油輸出國家組織的石油出口國可能會需要使用此型油輪，因為這些國家的石油出口港及運河或河道都較小，無法容納較大的 Suezmax 油輪或較大的大型原油運輸船和超大型的原油運輸船。Aframax 油輪是最適合於短程和中程的原油運輸船，目前主要用於黑海、北海、加勒比海、南中國海和地中海。

From: Projects <projects@howerob.com>

Sent: Tuesday, July 24, 2018 3:23 PM

To: Undisclosed recipients:

Subject: ██████ Crescent (LR2 / DWT105,000 / 2013 / Hyundai) for sale Singapore early August for inspection

For sale below quality LR2:

" M.T. ██████ Crescent " - (ex ' Hyundai Ulsan 2493 ')

DWT 105,405 on 15.02m Built 13 HYUNDAI HEAVY INDS - ULSAN

Flag PAN, Class NK - SS 1/2023 DD 1/2021

L.O.A. 243.99m / Beam 42.00m / L.B.P. 234.00m / Depth 21.00m

G.T. 57,221 / N.T. 32,866

MAN-B&W 6S60MC-C8 19,421 BHP 105 RPM 15.3

Hull: Double Hull

Tanks: 14 / Capacity: 114,600 / Pumps: 3x3000 cbm/h

Epoxy coated / StSt coiled at +66 °C

L.D.T. 18,488

Inspection : Provisional, at Singapore early August sub to change

Offer invitation: around 10-15th Aug, sub to change

Delivery timing : on after Middle of August, 2018 at the Sellers' Option, sub to change

BWTS due is 3rd Jan 2023.(same as next SS due and IOPP due)

Offers invited, Japanese tender style.

Further dets here on request.

Can guide on price.

B rgs

██████████ | Partner | Tanker Projects

██████████ PARTNERS (UK) LTD | 40 Gracechurch Street, London, EC3V 0BT

Phone: +44 20 ██████ 2568 | Mobile: +44 ██████ 320216 | ██████@██████████.com

- ※Suezmax：蘇彝士極限型油輪，120,000 公噸 ≤ 載重噸位 ≤ 160,000 公噸
Suezmax 型船的限制在於吃水不超過 20 公尺，船寬不超過 50 公尺，在空船或輕載航行下，水線以上高度不得超過 68 公尺，以通過蘇伊士運河大橋 (Suez Canal Bridge)。
 - ※VLCC (Very Large Crude oil Carriers 大型原油運輸船、大型油輪)：
240,000 公噸 ≤ 載重噸位 ≤ 320,000 公噸
 - ※ULCC (Ultra Large Crude oil Carriers 超大型原油運輸船、超大型油輪)：
載重噸位 ≥ 320,000 公噸

 - * For clean products 如成品油(白油 clean oil：gasoline 汽油，kerosene 煤油，gas oil 輕柴油，diesel oil 重柴油等)：Handy, Mid-range, LR1, LR2 → CLEAN TANKERS
 - * For crude oil and dirty products 即原油與其他黑油(dirty oil)如蒸餘油(residual oil)、以及蒸餘油與蒸餾油混合而成之中間油品：Panamax, Aframax, Suezmax, VLCC, ULCC
→ DIRTY TANKERS
 - * 液體石化產品，及棕櫚油、食用油、糖蜜(Molasses)：parcel tankers
- 請參考 <https://new.cpc.com.tw/life/classroom-more.aspx?id=11>

三、氣槽船(Gas carriers)：

LNG Carriers：(Liquefied natural gas carriers)液化天然氣槽船

LPG Carriers：(Liquefied petroleum gas carriers)液化石油氣槽船

氣槽船乃按貨艙的容積分類：

< 5000 CBM (cubic meters)

5,000-20,000 CBM

20,000-40,000 CBM

40,000-60,000 CBM

> 60,000 CBM

LPG vessel's descriptions :

From:
Sent: Wednesday, February 23, 2022 9:43 PM
To: Undisclosed recipients:
Subject: Fwd: LPG tanker DWT 18,045 tn for sale

Pls find foll LPG tanker for sale:

mt TBN "J S"
FLAG : Isle of Man
BUILT : Aug 01, 1998
CLASS : Lloyds Register
SDWT : 18,045.20 MT
SDRAFT : 9.78 m
LOA : 154.98 m
BEAM : 23.10 m
CUBIC 98 PCT : 16,261.53 m3 (ex slops)
TOTAL 98 PCT : 16,261.53 m3
PUMPS : 2 x 450 Cu. Metres/Hour (Centrifugal)
6 x 250 Cu. Metres/Hour (Other)
REHEATER : Tube
TANK PRESSURE: 6.12 KP/CM2 (max)
TANK TEMP : -48.00 °C (min)
TPC/TPI : 38.00 MT / 95 LT
BCM : 69.60 m
KTM : 42.65 m
GRT : 15,180.00
NRT : 4,785.00
PCNT : 12,721.00
SCNT : 12,780.58
DERRICKS : 0 x 0.00 MT
CRANES : 1 x 5.00 MT
HULL : Double Bottom

BRGDS

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相關資訊

事業部首頁 > 相關資訊

LNG 及LPG之差異

104-2-3

友善列印

項目	液化天然氣(LNG)	液化石油氣(LPG)
來源	將天然氣冷凍液化後縮小體積，以供船運方式運送	原油煉製過程之副產品
狀態	超低溫(-162°C)、常壓、液態	常溫、高壓、液態 (-20°C下壓力 4~6kg)
成分及熱值	<ul style="list-style-type: none"> 以甲烷(CH4)為主 氣態天然氣熱值約為 8,800 ~ 11,000Kcal/m³ 	<ul style="list-style-type: none"> 丙烷(C3)及丁烷(C4)混合氣 氣態石油氣熱值約為28,000 Kcal/m³(約12,000 kcal/kg)
處理過程	冷凍液化→冷凍船運→冷凍槽儲存→氣化→管輸→客戶端	高壓槽儲存→冷凍儲存→冷凍船運→冷凍槽儲存→加熱加壓→槽車運送→桶裝→客戶端
交易對象	補足自產氣及進口管道氣不足	尚無天然氣管道可達地區
價格指標	多以國際原油價格為計價指標(如日本進口原油價格JCC)	以阿拉伯石油公司公告期約離岸價格(Contract Price) 為計價指標
主要產地	卡達、馬來西亞、澳洲等	中東地區為主

資料來源：台灣中油股份有限公司天然事業部

<https://new.cpc.com.tw/division/lngb/information-text.aspx?ID=33>

四、冷凍船(Refrigerated vessels, reefer vessels)：：這些船舶是特別設計和建造以用來運輸很多種貨品，例如肉類、水果、魚和蔬菜，這些貨物如果儲存在一般的貨艙條件下將會迅速地惡化。通常貨艙容積達 39 萬立方英尺。冷藏貨物的空間共分為達 20 區。第 1 艙分為三層，第 2 艙到第 5 艙則各自分為四層。貨艙內的溫度可以控制在-25 C 到+15 C 的範圍之內，船上還有一種特殊的裝置，可在運輸過程中將冷凍的貨艙密封在氮氣之下，以展延存儲食品的到期日。每一貨艙都有一個艙口，並在甲板的高度有摺疊式艙蓋，以及 4 組各 10 噸的起重機配置在上層甲板。

五、More reading:

Break bulk vessels/cargoes

https://en.wikipedia.org/wiki/Break_bulk_cargo

<http://www.businessdictionary.com/definition/breakbulk-ship.html>

<http://www.businessdictionary.com/definition/breakbulk-ship.html#ixzz49kpDRDEm>

Difference between bulk and break bulk (散裝貨與散件貨的差別):

<http://shippingandfreightresource.com/difference-between-bulk-and-break-bulk/>

Break Bulk Cargo

https://www2.nykline.com/liner/cargo_advisory/break_bulk.html

Break Bulk Shipping and Breakbulk cargo - SeaRates.com

<https://www.searates.com/about/breakbulk>

III. 不定期航運市場的交易對象與交運貨物：

交易對象	交運貨物	出口地	進口地
1. 麵粉廠 (Flouring mills)	大麥(Barley) 小麥(Wheat)	加拿大、美國、澳洲、俄羅斯、烏克蘭、法國、阿根廷。	台灣、日本、韓國、埃及、蘇丹、阿爾及利亞、阿拉伯半島諸國、土耳其、伊朗、菲律賓、越南、南亞諸國、印尼等。
2. 飼料廠 (Feed mills)	飼料用玉米(Corn)	美國、阿根廷、巴西、烏克蘭。	台灣、日本、韓國、中國、越南、馬來西亞、歐盟、伊朗、埃及、秘魯、哥倫比亞、阿爾及利亞、沙烏地阿拉伯。
3. 榨油廠 (Crushing mills)	黃豆(Soybean)	美國、阿根廷、巴西、烏拉圭。	台灣、日本、韓國、中國、西歐各國、馬來西亞、泰國、越南、印尼、埃及、伊朗。
4. 燃煤火力發電廠 (Power plants)	煤炭(Steam coal)	澳洲、印尼、加拿大、俄羅斯、南非、哥倫比亞、莫三比克。	台灣、日本、韓國、中國、菲律賓、印度、義大利、西班牙、德國、法國、瑞典、馬來西亞、泰國。
5. 高爐煉鋼廠 (Furnace steel mills)	鐵礦砂(Iron ore)	巴西、南非、印度、澳洲、加拿大、委內瑞拉、挪威。	台灣、日本、韓國、中國、印度、印尼、英國、法國、德國、比利時、荷蘭、義大利、西班牙。
	煤炭(Steam coal)	澳洲、印尼、加拿大、俄羅斯、南非、哥倫比亞、莫三比克。	台灣、日本、韓國、中國、印度、比利時、巴西、義大利、西班牙、德國、法國、瑞典。

	焦煤(Coking coal)	澳洲、加拿大、美國、俄羅斯。	台灣、日本、韓國、中國、德國、義大利、印度、巴西。
	焦炭(coke)	澳洲、中國。	台灣、日本、韓國、比利時、印度、巴西。
	石灰石(limestone)	日本、阿拉伯半島。	台灣、印度。
	鋼鐵製品(Steel products: steel slab, pig iron, steel bar, steel billet, steel coil, ingot etc)	台灣、日本、韓國、中國、巴西、俄羅斯、澳洲、烏克蘭。	台灣、日本、韓國、中國、美國、西歐國家。
6. 電弧爐煉鋼廠 (Electric arc furnace steel mills)	鋼鐵製品、鋼鐵半製品(Semi steel products)、廢鐵(廢鋼, scrap)	美國、澳洲、俄羅斯	孟加拉、越南
7. 水泥廠 (Cement factories)	水泥(Cement) 水泥熟料 (Cement clinker)	台灣、中國、泰國、印尼。	美國、印度、澳洲、孟加拉、中東各國。
8. 木材廠 (Log processing factories)	原木(Log)、木材(timber)、合板(Plywood)、木屑(Wood chip)	印尼、泰國、緬甸、柬埔寨、美國、加拿大、俄羅斯、西非洲。	中國、台灣、日本、韓國。
9. 肥料廠商	化學肥料(Muriate of potash, MOP 氯化鉀) 磷礦肥(phosphate)	美國、芬蘭、烏克蘭、愛沙尼亞、摩洛哥、沙烏地阿拉伯、約旦。	中國、澳洲。
10. 製鋁廠商	鋁礬土(Bauxite) 氧化鋁(Alumina = aluminium oxide, Al ₂ O ₃)	澳洲、西非洲幾內亞的 Port Kamsar。	中國、義大利、德國、西班牙、烏克蘭、加拿大。
11. 煉銅廠商	銅礦(Copper)	澳洲。	中國、義大利、德國。
12. 煉油廠 (Refinery factories)與 石油公司(Petroleum companies)	原油(Crude oil; dirty oil) 液化石油氣 LPG (liquefied petroleum gas)	沙烏地阿拉伯、科威特、敘利亞、埃及、西非、奈及利亞、委內瑞拉、荷蘭屬地安第列斯、汶萊、烏克蘭、波羅的海、英國北海。	台灣、日本、韓國、中國、新加坡、印尼、澳洲、美國、法國、英國、義大利。

	成品油(Petroleum products; clean products)	中東與波斯灣區、歐陸、加勒比海區、新加坡、阿爾及利亞。	台灣、日本、韓國、中國、澳洲、美國、西歐各國。
13. 瓦斯公司 (Gas companies)與天然氣或油氣生產商 (Natural gas or petroleum gas producers)	液化天然氣 LNG (Liquefied natural gas) 液化石油氣 LPG (liquefied petroleum gas)	中東與波斯灣區、西非、奈及利亞、印尼、馬來西亞、汶萊。	台灣、日本、韓國、中國、澳洲、美國、西歐各國。
14. 原料供應商 (Cargo suppliers)	上述各項貨物的供應商、礦商等。	依上述貨物出口地所述。	依上述貨物進口地所述。
15. 貿易商 (Traders)	上述各項貨物的中間貿易商。	依上述貨物出口地所述。	依上述貨物進口地所述。
16. 無船租船營運人 (Ship operators)	按所欲經營船型租傭船隻。	按其貨運啟運地起租適當船舶。	按其貨運結束地點還租船舶。
17. 其他同業輪船公司 (Other shipping companies)	按所缺船型租傭船隻。	按其貨運啟運地起租適當船舶。	按其貨運結束地點還租船舶。

IV. 不定期航運業中的相關人(Parties involved in tramp shipping)

1. OWNERS 或 SHIPOWNER：船東、船舶所有人、船方

狹義上指船舶的擁有者；在租傭船業務中，並不特定指對船舶具有所有權者，而是指可指揮與運用船舶的人，包括真正的所有權人，光船租賃（BAREBOAT CHARTER）的租船人，論時傭船取得船舶的租船人等。在不定期航運業務中，船東與租船人訂約，約定由船東提供船舶以負擔運送(船東收入為運費，freight)或出租船舶供租船人使用(船東收入為租金，hire)。

2. CHARTERERS：租船人、傭船人、租商、租方

指與船東簽訂傭船契約（CHARTER PARTY）以託運貨物（多為貨物之進出口商）或承租船舶營運(常是經營航運業務的航運業者)的一方。市場上有很多各式各樣的租船人，從經營小公司且只涉及某一種特殊商品貿易的個人，到國際主要的貿易商。這些租船人參與國際乾貨航運市場，在國際乾貨航運市場可能是非常的舉足輕重，但是在航運市場的活動卻可能只佔他們企業總體活動的一小部分而已。因此，一些租船人是全球購買、銷售和運輸若干貨物如穀物、肥料、礦物與諸如此類的貨物中的貿易商。其他人，也許可能是來自某一個特定地理區域的商品製造商、礦商、農產商、託運人或收貨人。有的租船人則可能是政府所經營的公司如印度政府，政府的受雇人被賦予取得適當船舶以滿足該國需要的任務。

對以下的 BROKERS、AGENTS、MANAGEMENT COMPANIES 等人而言，以上兩者都是可授權他人，使他人成為其代理人的主體人（PRINCIPAL），屬於代理關係中與代理人相對的另一方，即被代理人，因而代理人在授權代理範圍內所為的法律行為效力直接及於本人。

3. BROKERS 或 CHARTERING BROKERS：經紀商，租船經紀人，傭船經紀人，租傭船經紀人，租傭船仲介商等

有時又稱 SHIP BROKERS 或 SHIPPING BROKERS，但 SHIP BROKERS 或 SHIPPING BROKERS 係指船舶經紀人，除了承做租傭船的仲介業務亦包含承做買賣船的仲介業務(Sales and Purchase Brokers, 又稱 S&P Brokers)。在此討論係限於租傭船仲介業務之經紀商而言。此類經紀商代表船東與貨主，撮合需要運送的貨物與可用的船舶。接受船東委託為船舶尋覓合適貨載運送或出租，或受租船人委託為其貨載尋覓合適船東或合適船舶租用承運，為船、租雙方的中間介紹人(註：經紀商乃是受船東或租船人委託洽詢與透過經紀商進行租傭船業務的協商，但船東或租船人並非授權經紀商代為訂定合約)。他們幫助這些主要業者，即船舶出租方與承租方，確保貨物找到合適的船舶運送和船舶找到合適的貨物運送。換句話說，經紀人提供了使市場機制能夠運作的潤滑功能。經紀商必須隨時調查運價漲跌、船舶供需變化，貨運量增減，港口壅塞情形，交易成交消息等市場訊息，是詳細市場情報的來源。經紀商還需與船東或租船人保持密切聯繫，提供專業諮

詢，並為其經紀仲介的租傭船案件，製作傭船合約，在船、租雙方有爭議時，代為交涉解決紛爭。如果顧客有需要的話，經紀商還必須提供有關風險管理工具(如遠期貨運協定)的建議給顧客。經紀商仲介租傭船交易的酬勞為船東自租船人所賺取之運費 (freight)、延滯費 (demurrage, 延滯罰款) 或租金 (hire) 的 1.25%，稱為佣金 (commission, 或稱 brokerage)，每一個參與撮合的 BROKER 各 1.25%。然而此一佣金乃是經紀商引薦船東與租船人進行協商並因此成功地洽定一個交易，船東所支付給經紀商的酬勞。如果沒有因此成功地促成一個交易，那麼即使是很辛苦地工作與花費許多費用，這個在船東與租船人中間的經紀商仍然沒能獲得任何一種型的收入。因此經紀人們天生就喜歡洽定交易，並且追求成功地洽定租傭船交易。如果只是幾近成交，無論過程如何令人興奮，對經紀商不僅毫無獲利，反而是對資源、時間與精神上的負擔。經紀商完成撮合一宗租傭船交易之後，對該租傭船交易案還有幾項後續的工作：

- a) 起草租傭船契約，忠實地記錄所有雙方已同意的條件(這一項通常是租船人的經紀商該做的工作，船東的經紀商務必要負責檢查及核對租船人經紀商所製作的草稿版本內容);
- b) 處理後續任何的修約或在當時協商中所沒提到的增修內容;
- c) 處理船東與租船人之間的聯絡溝通;
- d) 處理船東與租船人之間在金錢上的交易，諸如運費、航次餘額與租金的支付等。

專精於為租船人尋覓船舶載運貨物的船舶經紀商，被稱為租傭船經紀商(Chartering Broker)或租船人的租傭船代理(Chartering Agent)，這種經紀人可能是租船人公司所雇用的人員，專門處理該租船人的生意，或者這個經紀人可能是經紀商公司保留做為以獨家專屬為基礎(on an exclusive basis)，專門服務該租船人。

因此大多數中、大型的船舶經紀商公司都會維持一個作業部門(Post-fixture department)去執行成交後的各項程序，該部門的職責是有效地處理的所有成交案的後續履約作業，好讓前線的經紀人，集中精神去洽訂更多的租傭船交易。但是較小的公司或個人經紀商就將必須處理從最初談判到對最後金融交易的整個作業內容。

典型的遠洋乾貨租傭船交易通常涉及至少兩個經紀商，一名代表船東，另一代表租船人，有時在這一關係鏈中還會有更多的經紀商存在。然而在遠洋的乾貨租傭船交易相當少見只用一家經紀商居中仲介，近洋與一些專門的租傭船案件偶爾會只有一家經紀商居間致力於仲介船東與租船人這兩個當事人。因此如果是船東與租船人之間唯一的經紀商，這個經紀商就必須更謹慎地以專業的方式來做事，用盡他們所有的努力，來提升在談判中與成交後各項業務往來的和諧。

註：BROKER 的執業倫理標準：*The Baltic Code*

([https://www.balticexchange.com/dyn/assets/pdfs/\(2\)AGuidetotheNewBalticCode2020.pdf](https://www.balticexchange.com/dyn/assets/pdfs/(2)AGuidetotheNewBalticCode2020.pdf))

Baltic Exchange 的 *The Baltic Code* 包含了對船舶經紀人執行業務過程中各項行為的

指導，這些指導內容乃是基於波羅的海交易所成員們多年工作淬煉所得的經驗。波羅的海運交易所的座右銘 -- "我們說的話就是我們的承諾" (*Our Word Our Bond*) -- 彰顯了道德在航運交易中的重要性。交易所成員間需要互相信賴，並因此連接到與他們(經紀商)所代表的主體人(Principal，即經紀商所代表的船東或租船人)之間也要建立起互相信賴的關係，因為船東與租船人都是先透過彼此的經紀商以口頭談判而達成協議，事後才再做成書面合約的形式。因此只要雙方一經承諾，則合約的條款或條件，無論是用口頭達成的還是寫成書面，都被認為是不可違背的，而遵守這種合乎職業道德的常規，就是波羅的海運交易所成員的一項重要承諾。因此波羅的海運交易所認為並遵守在航運交易的過程中，道德是至關重要的。

4. AGENTS：又稱 SHIPPING AGENTS，船務代理行或船務代理商

船務代理行係指代表船東在港口安排船舶進、出港，辦理海關和港口有關手續，聯繫租船人或其指定之裝卸貨公司 (STEVEDORE COMPANIES) 以安排裝貨或卸貨、靠泊碼頭、駛離碼頭，為船舶安排船員上下、補給伙食、油料、物料或安排修護、代寄/收信件、包裹、零件、與海圖等照料船舶的業務，船務理行按其受委託的業務範圍多寡向船東收取高低不等的代理費(agency fee)為其主要收入。在很 多論程傭船合約中，規定代理行乃由租船人指定，船東則須委託由租船人指定的代理行，稱 CHARTERERS AGENT，來做為船舶在裝貨港或卸貨港的代理行，但一切開銷包括代理費仍由船東支付。此時，船東為防止租船人指定的代理行，在執行業務上有所偏頗，置船東利益於不顧，常會在港口另行指派保護船東的代理行，稱為 PROTECTIVE AGENT，PROTECTING AGENT 或 SUPERVISORY AGENT，中文稱保護代理行或監督代理行來監督租船人指定之代理行的行為，並為船東把關審核各項開銷，但船東仍應為保護代理行或監督代理行所提供的服務，另付代理費。

5. SHIP MANAGEMENT COMPANIES：船舶管理公司(酬勞為管理費或監工費)

受船東委託提供船舶管理的服務，包括：

- ① 工務維修服務，包括平時船舶修繕、年度歲修、定保進塢大修的安排。
- ② 僱用培訓船員。專門從事代船公司尋找與代僱船員的人力公司稱為 manning agent 或 manning company。
- ③ 海事工藝設計、監工服務。
- ④ 船舶之傭船契約訂約後履約事項的執行。
- ⑤ 油料補給服務。
- ⑥ 其他受船東委託辦理之事項，例如受船東委託洽訂租約(如果有約定按租約的租金或運費收受佣金為報酬，就形同是、且實質上也就是 Brokers)。

6. STEVEDORE 或 STEVEDORING COMPANIES：裝卸貨公司

在不定期航運業務的經營中，船東都不負擔貨物裝卸的安排與費用(F.I.O.條件)，因此租船人、託運人或受貨人需委託裝卸貨的港口裝卸貨公司執行裝卸貨作業，

裝卸貨公司所受報酬為貨主所給付的“裝(卸)貨費用”(Stevedore charge)。裝卸貨公司必須在船長要求顧及船舶安全而妥善將貨物裝船或卸船，同時又必須顧及委託者要求在最短時間內完成裝貨或卸貨的作業，因此必須與代理行密切聯繫，在船抵港前完成一切裝貨或卸貨的準備與計劃，並事先與船長討論好裝貨或卸貨的換艙順序，才能順利並迅速完成裝卸貨。

7. **SURVEYOR：檢驗人**(酬勞為檢驗費或驗船費, survey fee)

- ① CARGO SURVEYORS 貨物檢驗人。
- ② MARINE SURVEYORS 驗船師。
- ③ BUNKER SURVEYORS 油料檢驗師。
- ④ 其他的官方機構的檢驗員：如美國農業部檢驗員 (USDA SURVEYORS) 及美國國家商品檢驗局檢驗員 (NCB SURVEYOR)。
- ⑤ 各國的港口國管制的檢查官員(PORT STATE CONTROL INSPECTION OFFICERS)。

8. **SHIPPER：託運人，出口商，常是賣方**

要備妥貨物、委託 STEVEDORE COMPANY 裝貨出口的人，倘貿易條件為 CFR 或 CIF，SHIPPER 並須負責洽訂船運，因而是租船人的可能人選之一。

9. **CONSIGNEE：受貨人，進口商，常是買方**

貨抵卸貨港時，受貨人必須提出一份正本載貨證券予船長請船長交付貨物，並委託安排 STEVEDORE COMPANY 卸貨。倘貿易條件為 FOB，CONSIGNEE 則須負責洽訂船運，因而亦是租船人的可能人選之一。

10. **OPERATOR：無船營運人，船舶營運人**

OPERATOR 這一名稱用來描述一個組織或個人，憑著其對市場與市場機制的豐富歷練，從交易船舶與貨物的租傭業務來產生收入。某一些營運人專注於確保向船東租到船舶，然後希望以更高的運費或租金率出租給其他租船人來營運，從而獲得利潤。另外有些營運人則以其與租船人關係良好，可自其租船人客戶取大量貨源，專注在從租船人取得貨物的運送合約，並且以比較低的運費或租金自市場租用船舶來執行租船人所委託的運送，以此完成他們對原租船人的承諾，同時並為自己謀利。常見的方式是營運人與其租船人客戶訂立一論程傭船契約，承擔一海上運送，因而面對此一論程傭船之租船人，營運人為提供船舶、按論程傭船契約承擔運送、派船運送貨物的船東；另一方面營運人可能沒有船舶或其自有船舶的船期或位置不合，因而自市場以論時傭船租用船舶以完成其承擔自論程傭船人所委託的運送。對船舶的船東而言，營運人乃是論時租船人的角色。某些營運人既租傭船舶又取得貨物的運送合約，且在任何一個時點，都有與租船人或船東訂定的短期、中期與長期合約組合在執行。這種營運方式需要高超的技巧與仔細的現金流管控，加上一合理程度的運氣，才能將獲利的潛力最大化。

此一營運人也可能是船東以論時傭船的方式租進船舶來代替自有船舶承運已承攬的貨物。

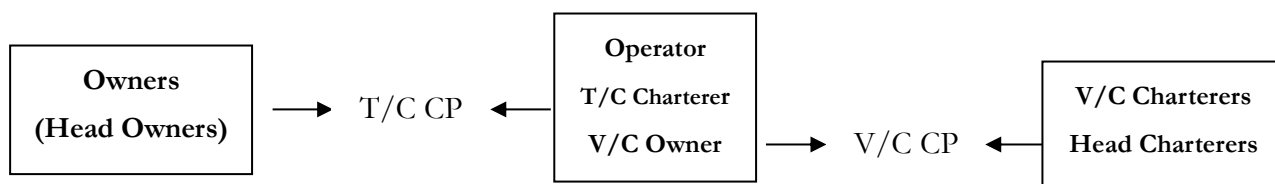
營運利潤來源：

1. 運費收入-(租船租金+港口費用+燃料費用+快速費+其他雜費)；
2. 運費價差。
3. 租入船舶，再轉租給其他租船人，所獲得的租金價差。

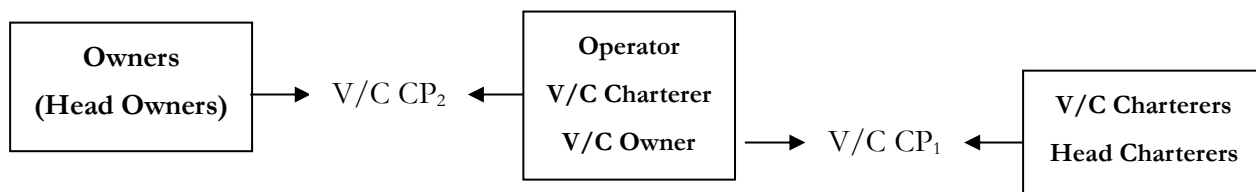
承擔的風險：

1. 租金或運費上漲；
2. 滯港過久造成港口費用增加；
3. 燃料價格上漲。

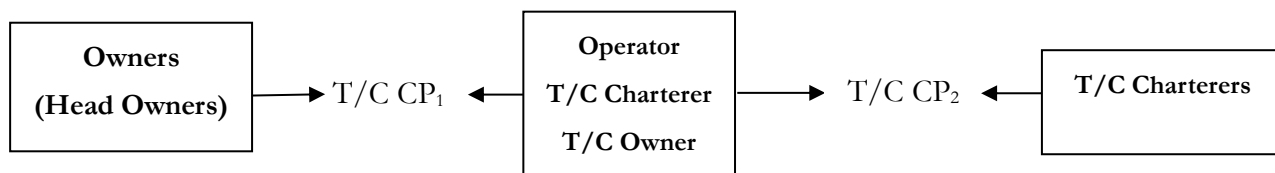
圖示一：



圖示二：



圖示三：賺取租金差額



營運之核心技能：

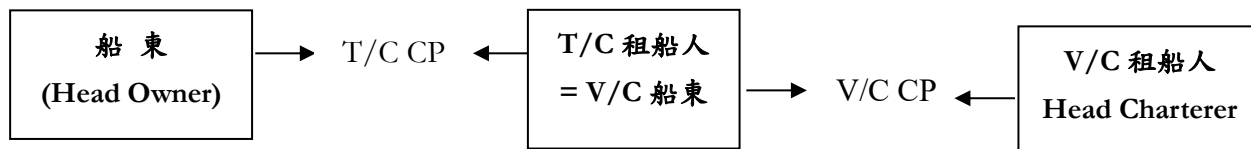
- ① 熟稔 T/C 與 V/C 之運作。
- ② 與其租船人客戶保持密切的良好關係，以取得貨源，做為收入來源。
- ③ 密切地追蹤租船市場的漲跌、船舶的動態，以取得船舶，做為履約的工具。
- ④ 密切地靈活的資金調度。

當然以營運人的作法來營運，是一個高風險的事業，會獲得利潤也會產生損失。因此，雖然很多營運人能完好地執行他們訂定的合約，但不可避免地也有若干營運人會破產，無法令人滿意地履行他們承諾的合約，這是營運人以及那些要與他們交易的對手所要考慮且最終可能要承擔的風險。儘管如此，營運人現在已經成

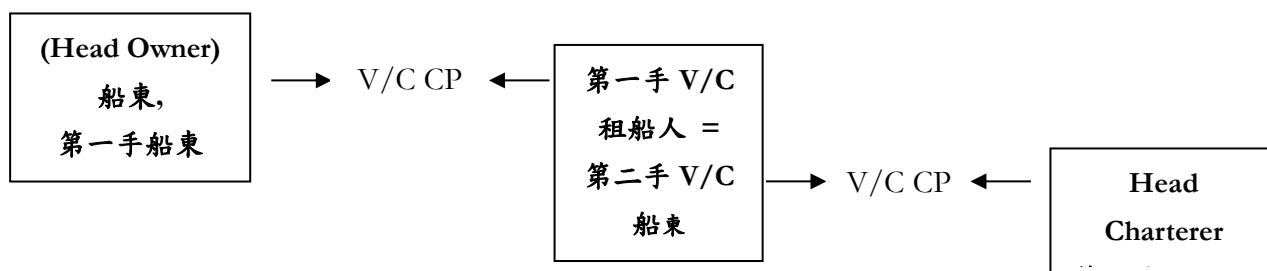
為國際乾散裝航運市場上一項關鍵的因素，而且是國際貿易中的一項顯著的特點。事實上，一些知名的定期貨櫃輪船公司實際上也是無船營運人，因為他們是以租傭的貨櫃船與貨櫃來經營定期貨櫃航運。

11. HEAD CHARTERERS：主傭船人

圖示四：



圖示五：



12. HEAD OWNERS，主船東

13. DISPONENT OWNERS 準船東

空船租賃中的租船人，以空船租賃取得船舶營運，需自行僱用船長與船員負責船舶的駕駛與管理，並需負擔船舶的保養與維修，對船舶負擔的義務，除了船舶貸款的還本付息與折舊以外，與一般船舶船東所負擔的義務，幾乎一致。

此外，空船租賃的租船人，以船長為其受僱人，因而所簽發載貨證券，使其成為貨物運送中的運送人，肩負運送人的責任，與其他船舶真正的船東，在運送責任的負擔上，也一樣，因此常被稱為“準船東”（DISPONENT OWNERS）。

準船東之營運核心技能：

- ① 良好的信用聲譽與評等。
- ② 熟稔空船租賃之運作。
- ③ 其餘與一般船東在營運船舶所需之核心技能相同。

V. 不定期航運經濟

壹、整體市場經濟

一、不定期航運市場經濟特性：

1. 興衰循環：不景氣 (depression) ⇨ 衰退 (recession) ⇨ 持平 (soft) ⇨ 上漲 (boom) ⇨ 過熱 (Bonanza) ⇨ 不景氣 . . .
2. 週期長短不定：易受天候、戰爭、政治及經濟等各種因素的影響。
3. 部門市場：
 - (1) 事實上，不定期航運的船舶租傭市場是由數個非相互競爭的部門市場 (Sectoral Market) 所組成。例如，乾貨船可以裝載穀物，但和油輪不構成競爭。海岬型及 Newcastlemax、VLBC、ULBC、VALEMAX 等船型適宜擔任鐵礦砂運輸之船舶，由於以其載重噸位而言，相對船艙容量較小，不適合裝載如 Kamsarmax 船或小於 Kamsarmax 船的各船型所適宜運輸的穀物等較輕的貨品，因此適於擔任鐵礦砂運輸，甚至是專任於鐵礦砂運輸，因此與適於穀類運輸的船舶之間較不相互競爭。特殊用途船舶如液化天然氣專用船 (Liquefied Natural Gas Carrier) 或者其他可用來裝載特殊產品的油輪，亦不會和散裝船 (Bulk Carrier) 構成競爭。大型的油輪或散裝船，對長程的大量運輸而言最為經濟，小型船舶則無法在這種長程大量運輸中作有效競爭，但對於貨量較小者或沿岸或近海貿易之貨物，則具競爭力。Clean tankers 與 dirty tankers 所能承載的貨物不同，彼此也不構成競爭。
 - (2) 同類型船舶縱然可載相同的貨，在某種市場情況 (某船型超漲或超跌) 下，可能會出現互相爭攬相同貨物的情形，彼此價格變動會受到牽制或拉引，但在正常狀態下，因彼此對不同貨物與長短途運輸的競爭力不同，加上前往港口與所經航路的限制不同，因而形成各自的部門市場。
4. 地區性市場：長期以來不定期航運市場受散裝貨載與船舶噸位流量等變動，全球在地理上可約略區隔成泛大西洋與泛太平洋區域，兩區域雖自成獨立市場體系，但因區域內之貨載量與船噸量隨時變動調整，並藉由跨洋區域及介於兩大區域間之印度洋區貨流量以調整區域船噸的流動，因而在某一特定洋區每日之船舶供給與對船舶的需求量間，乃是保持隨時在變動的狀態。
5. 散裝運費市場的市場特徵符合五項假設：
 - (1) 在這產業中的每一(船舶)供應者都在尋求利潤極大化
 - i. 此一利潤指的是總收入與總成本的差額
 - ii. 追求利潤極大化需要船公司只能銷售能使其總利潤達到極大的產出水準(即盡全力去營運，避免船舶停航，或盡量避免或縮短空放的航行)
 - (2) 在市場中有許多買方與賣方。

- (3) 每一同型船的船公司所提供的服務與市場上其他公司所提供的服務是完全一樣。
- (4) 進入與離開這一市場相對比較容易，進入與離開的門檻並不高。
- (5) 資訊充足，所有在這市場中的參與者所知道的資訊與其他每一參與者所知道的資訊都相同，所有人都知道市場費率，成本資訊也廣為人知。

在這一市場中，供給和需求是推動市場經濟運作的力量。航運的供給與需求之間相互作用最終決定運價。"船東和貨主談判所達成的運費率反映了在市場上船舶與貨物間的平衡" (Stopford, 2003 年)。隨著在市場上的船舶噸位供給上升，需求下降，運費也下降。另一方面當市場上的船舶噸位供給下降，需求增加，運費就上升。這就會引誘船東提供更多的運輸。然而很少發生長時間的供不應求;相反地，這個航運市場傾向在較長期的衰退之後，出現短期的繁榮期" (Lorange, 2010 年)。航運服務在供給上的變化，相對在回應需求的變化上是非常緩慢的(供給的價格彈性低)。另一方面，對航運服務的需求卻會因為產業需求的變化而變動得非常快。船舶的建造需要若干年時間，此外船舶一般有 15 到 30 年之間不等的壽命。所以當需求下降，供給下降的幅度要花很長的時間才能趕上。例如，20 世紀的 70 年代中期油輪需求大幅下降了 60%。但市場船噸的供給花了超過 10 年的時間，才得以調整並適應這種需求的下降。雖然在這段時期需求沒有繼續增加，但因為在市場美好的時期原本訂造的新建船舶陸續在此時交船了，所以一旦當需求出現下降，運價就很快地觸底了，於是迫使船東開始報廢船舶。以上非常簡短地說明需求、供給和運費率之間的關係。

More reading:

<http://www.ukessays.com/essays/economics/the-determinants-of-the-demand-for-shipping-services--economics-essay.php#ixzz42ruExa78>

不定期航運市場上的船貨供需動態隨時在變動，再加上散裝貨船市場夠大，任何政府或航商或租商難以使用人為的因素去控制市場的漲跌或形成經營障礙。在這些情境下，此一市場符合完全競爭的市場，運費或租金率決定於當時、當地區域，對特定適載船型的船舶供給與對船舶所提供的運輸需求(需要運送的貨物量，以下稱船噸需求量)之間的狀況而定。

6. 若干造成不定期航運市場變動的因素：
 - 6.1 船舶的供給量：有多少不同類型的船舶可用？有多少艘新造船將由船廠交付，有多少艘船舶要被拆解？
 - 6.2 運輸需求量（需要運送的貨物量）：工業生產的水準為何？穀物收成是否成功？發電廠是否進口更多煤炭？鋼鐵產業的表現如何？
 - 6.3 季節性因素：天氣對航運市場有很大的影響，從農作物收成的多寡到港口與河流的結冰程度都會有影響。
 - 6.4 裝卸港口的情況，若港口壅塞，易造成市場空船找貨的船舶數量減少，有助市場上漲。
 - 6.5 燃油價格：燃料價格約佔船東營運成本的四分之一到三分之一，燃油價格的變動直接影響到船東的營運。

- 6.6 航行瓶頸: 這一因素對油輪的影響尤其嚴重，全球幾乎有一半的石油運送必須通過少數相對狹窄的航道。這些狹窄航道包括荷莫茲海峽和麻六甲海峽、蘇伊士和巴拿馬運河、波斯普魯斯海峽和其他重要航道，這些航道一旦關閉，無論是肇因於衝突、恐怖攻擊或在擁擠的航道發生碰撞，都將改變整個世界的供應模式。
 - 6.7 市場投機性操作：因應市場上漲或下跌的預期，市場交易人士先搶租船舶或搶訂貨運，以圖靠轉租船舶或轉讓貨運的操作獲利，在投機氣氛濃烈時，常有火上添油或雪上加霜的作用。
 - 6.8 各國政府對若干基礎產業（煉鋼、發電、煉油、農產）政策的取向。
7. 散裝貨輪之市場雖是由船噸供給與需求量的情形而定，但船噸供給與需求量不易以模型量化來估計預測，故迄今仍無法找到一個令人滿意的計量模型以提供業界或學術界準確地預測市場價格。

二、船噸需求面的因素：

1. 先進工業化國家如歐美及日本等的經濟景氣，帶動船噸需求增加，激勵市場行情上揚。
2. 新興工業化國家經濟高度成長，加速這些國家國內的基礎建設與產業的發展，帶動全球原物料需求暴增，尤其中國與印度，其一舉一動都將顯著地影響全球貿易發展與海運貨載量的消長，對散裝貨船運費市場影響至鉅。
3. 貨流運輸距離：理論上船噸需求應以“延噸—海哩”（tone-miles），即1噸貨物運送1海哩，為單位來計算，全年度運輸需求的延噸海哩數，即為年度總貨運量與這些貨物各自運送的距離相乘後的乘積，這一數字除了反映市場上所需海運運輸的多寡，也反映了貨流運輸距離，運輸距離愈遠，延噸海哩數愈大，運輸需求也愈高。隱含了船舶完成一趟運送所耗的時間愈久，一年能運送的貨物就愈少，則待運的貨物，相對較多。
4. 年度週期性因素：南北半球秋季穀物收成出口的季節性需求；聖誕節假期與中國農曆假期期間交易清淡；北半球夏季西方人士度假熱潮而造成北半球電力消耗減低；每年四月份全球鐵礦與煤炭原料價格新約的議定等因素都造成季節性的需求波動。
5. 非週期性的因素：如原料出口港發生罷工，或礦場或內陸運輸系統發生災變中斷原料輸出，將使該地區暫無貨載可運，運輸要求降低。此外高爐煉鋼廠停爐大修，燃煤火力電廠停工檢修，都將造成原料進口需求的降低，而核能電廠停工大修，卻可造成燃煤電廠負荷增加，也增加了煤炭進口的需求。另外政治力的干預，如禁運、貿易管制或制裁、戰爭或特殊援外糧食物資的給予，都可能造成航運需求的增加或減弱。
6. 乾散裝貨運的需求是一項引申需求(derived demand)，因為對航運的需求是一項因貨物的消費所引申或衍生出來的需求，而不是運輸本身的需求，是那些被運送的貨物所造成的需求。這種引申需求主要的原則是

- (1) 對此一最終財貨本身的需求價格彈性值(price elasticity)；
- (2) 有相近的替代品存在(close substitutes)；
- (3) 運輸的成本佔此一財貨最終總價格的比例(The proportion of the total final price which transport constitutes)低。

舉穀物為例，穀物運輸是受到在不同區域內生產與消費走勢、當地氣候與收成量、食物消費型態的變化所驅動。穀物是一種用來投入工業製造的原料，用以製作麵包、麵條，或是當成飼料用以餵養家畜與家禽以讓消費者取得肉類，但是麵包、麵條與肉類都是價格需求彈性低的商品。

穀物自主要的出口地如北美洲與南美洲以海運裝運出口，使用空運雖然可行但是運送量低且是成本很貴的一個選項。

三、船噸供給面的因素：

1. 新船訂造量、交船量：新船交船，進入市場營運，造成市場船噸供給增加。
2. 老舊船舶拆解 (scrapping)：老舊船舶拆解，市場船噸供給將降低。拆解數量受①廢鐵價格，②運費市場繁榮與否的因素影響。
3. 國際海事法規與港口國管制：如 IMO (聯合國海事組織) 所訂之 SOLAS (海上人命安全公約)及各國家港口管制機關 (Port State Control) 對商船之結構安全及牽涉船舶安全管理事項施加更嚴格的規定與更嚴密的檢查，使無法符合規定的船舶退出市場或提早拆解，船噸供給將受影響。
4. 造船技術進步，組裝時間縮短，造船廠生產速度加快，產能提昇，新船快速或提早進入市場，將增加船舶供給。
5. 港口壅塞，使很多船隻長期滯留候港，影響船隻營運週轉率(turn-around)與降低運輸服務生產力，降低市場船噸供給數量。

貳、個體航運經濟

不定期航運經營成本分析暨第一次學期作業如下頁起共三頁。

本學期課程，自此之後，請帶計算機來上課!

作業一 (上課講解時，請攜帶計算機)

請詳閱下列資料,然後計算並回答壹到柒的問題：

- 某輪造價 3,500 萬美元 載重噸位為 82,096.²⁰公噸 總噸位為 44,543
- 預估使用年限:18 年
- 殘值:以使用年限加 1 年為折舊基礎
並以一年之折舊金額為殘值
- 貸款成數: 70%
- 貸款年利率: 6%
- 保險條件

一、船舶財產險

1.船體險(Hull and Machinery)

投保金額為 80%船價

保險費率(premium rate)為 0.35%

2.增值險(Increased value)

投保金額為 20%船價

保險費率為 0.15%

3.戰爭險(War risk insurance)

投保金額為 100%船價

保險費率為 0.04%

二、船舶營運人責任險

航運保護與賠償險(Protection and Indemnity insurance):

每總噸位 1.8 美元 [advance call & deferred call]

- 每年營運天數 360 天
- 成本項目(每年):
 1. 船員薪津(Crew wages) : \$1,000,000.-
 2. 船上伙食費(Victualling expenses; Provisions) : \$ 85,000.-
 3. 船員遣送與保險費用(Crew transportation and insurance) : \$ 80,000.-
 4. 保養與歲修(Maintenance and Repairs) : \$ 200,000.-
 5. 零料配件備用品(Stores, Supplies and Equipment) : \$ 160,000.-
 6. 進塢攤提(Amortization of dry-docking expense) : \$ 150,000.-
 7. 潤滑油(Lubricating oil) : \$ 100,000.-
 8. 利息費用(Interest expense) : \$?.-
 9. 保險費用(Insurance premium & calls) : \$?.-
 10. 折舊費用(Depreciation) : \$?.-
 11. 雜項費用(Overhead charges; Miscellaneous) : \$ 50,000.-
 12. 通訊費用(Tel., Telex and communication charges) : \$ 15,000.-
 13. 管理費用(Administration expenses) : \$ 200,000.-
 14. 燃料費用(Fuel):
 15. 港埠費用(Port charges; Port disbursements):
 16. 裝卸貨費用(Stevedore charges):

17. 清掃艙費用 (Cleaning of holds):
18. 墊艙費用 (Dunnage):
19. 壓艙水費用 (Ballast, if any):
20. 佣金費用 (Commissions; Brokerages):
21. 貨損理賠費用 (Claims):
22. 代理費用 (Agency fee):
23. 運河通行費用 (Canal tolls and Disbursements):
24. 快裝/快卸費用 (Despatch):

問題 -

- 壹. 請算出每年的利息費用，保險費用與折舊費用。
- 貳. 請試分析若以空船租賃方式出租營運時之成本項目與每日損益平衡點為若干?
- 參. 請在 24 項成本與費用項目中，製表分辨出固定成本項目與變動成本項目。
- 肆. 請按問題參的答案，算出全年固定成本的總和及平均每日固定成本各若干?
- 伍. 請試分析若以論時傭船方式營運時之各項成本項目(要列出明細)與每日損益平衡點為若干?
- 陸. 差異分析:

船價每增或減 100 萬美元時，論時出租之每日損益平衡點增減若干?

- 柒. 設若該輪履運某一論程傭船合約由 Rotterdam, Netherlands 啟航空放到 New Orleans, U.S.A.，裝載了黃豆 61,000 公噸，經 Panama Canal 回高雄，其間

1. 航程資料如下:

Rotterdam → New Orleans	空放航行 5,040 海浬
New Orleans	裝貨 7 天
Panama Canal	在 Cristobal 等候通行 1 天
New Orleans → 高雄	滿載航行 11,664 海浬
高雄	卸貨 8 天

該輪每日耗油狀況:

空放航行時	平均每小時速度 14 節，每日耗油 32 公噸 VLSFO
滿載航行時	平均每小時速度 13.5 節，每日耗油 32 公噸 VLSFO
航行時	0.1 公噸 MGO
在港口時	每日耗油 4 公噸 VLSFO
	0.1 公噸 MGO

油價: VLSFO (Very Low Sulphur Fuel Oil, 船用低硫燃料油)	US\$650/MT
MGO (Marine Gasoil, 船用輕柴油)	US\$850/MT

(附註: 船舶每一小時航行一海浬的速度稱為 1 節)

試問該航程共耗燃料費用若干?

2. - 港埠費用:

裝貨港	US\$280,000.-
卸貨港	US\$ 30,000.-
- 運河通行暨代理費: US\$220,000.-
- 裝卸貨費用: F.I.O.S.T.條件

- 清掃艙費用: 該輪共 7 個貨艙, 該航次每艙清掃艙費用 US\$400.-
- 快裝/快卸費用: US\$70,000.-

則請列出該航次所發生之變動成本項目並計算其總和為若干?

3. 請列出①該航次所負擔之固定成本項目, ②該航次各項固定成本的金額及③該航次各項固定成本之總和.
 4. 該輪船東取得該航次貨載, 須付運費收入之 2.5% 為租船回佣給租船人, 另各 1.25% 之佣金給船東與租船人的經紀商, 即共付佣金率 5%, 則該航次每公噸運費的損益平衡點為若干?
- 捌. 請將題目、計算過程與答案以電腦繕打, 封面列出姓名與學號, 並在最後加上完成報告後的學習心得或結論一小段做成學期報告, 按老師規定時間繳交。

VI. 不定期航運的經營方式

AAA. Time Charter Parties: main terms, clauses and forms.

A. 簡介論時傭船契約 (Time Charter Parties)

- a. 可分①航次論時傭船(Time Charter trip, trip time charters)或②期間論時傭船(Period time charters)。
- b. 船東提供配備船員的船舶予租船人在約定的期間內按照約定的用途使用營運。
- c. 租船人得使用全部貨艙+油料(燃料油與柴油)艙間
- d. 船東負責管理船舶(僱用船長與船員), 租船人負責攬貨營運
- e. 船長(船東受僱人): 受船東指揮—關於船舶管理維修事項。
受租船人指揮—關於船舶營運事項。

Master's dual-agency problem in Time charters —

- f. 載貨證券的簽發:
①船長、②船東, ③經前二者授權之代理行
- g. 按時間計收租金 (hire = days × daily hire rate)
租金預付(每 15 天一次)
離租(Off hire): 有因為船舶或船東的因素造成租船人無法依照約定的用途使用或營運船舶的時段, 租船人針對這些時段不付租金。
- h. 固定成本與佣金費用: 船東
除佣金費用以外的變動(航次)成本: 租船人
- i. 船東的交船期與租船人的合約取消日 Lay days and canceling date
E.g. NYPE '93: **16. Delivery/Cancelling** *If required by the Charterers, time shall not commence before And should the Vessel not be ready for delivery on or before But not later than hours, the Charterers shall have the option of canceling this Charter Party.*
- j. 租船人按約定之方法, 使用船舶用於運輸約定的合法的貨物, 在約定航行區域內的安全港口或者地點之間從事約定的海上運輸: 船舶用油規格, 禁航區域條款, 禁運貨物條款...。(以上項目對租船人在營運與使用船舶造成限制)
- k. 船舶轉租 Sublet: 租船人有權將船舶以全部或部份租期轉租(sublet, relet 轉租出、再出租)他人
E.g. NYPE '93: **18. Sublet** *Unless otherwise agreed, the Charterers shall have the liberty to sublet the Vessel for all or any part of the time covered by this Charter Party, but the Charterers remain responsible for the fulfillment of this Charter Party.*
- l. 留置權 Lien
E.g. NYPE '93: **23. Liens** *The Owners shall have a lien upon all cargoes and all sub-freights and/or sub-hire for any amounts due under this Charter Party, including general average contributions, and the Charterers shall have a lien on the Vessel for all monies paid in advance and not earned, and any overpaid hire or excess deposit to be returned at once ...*

m. 租船人逾期未還船或提早還船 Charterers' overlap or underlap

B. Examples of some time charter party forms

- a. NEW YORK PRODUCE EXCHANGE (NYPE 1931 adapted 21/31/46) : the market standard
- b. NYPE '93: another revision in conjunction with the General council of British Shipping - for long period charter.
- c. ASBATIME (1981): an adaption by the Association of Shipping and Agents (USA) Inc.
- d. BALTIME 1909: amended 1920/39/50, but has lost ground to NYPE.
- e. BOXTIME: BIMCO form for the container trade.

C. MAIN TERMS IN A TIME CHARTER

論時傭船的主要條款：

(借助這些內容了解船東收取那些項目的收入與各項目收款的時機點)

1. CHARTERERS

— *A/C GREAT OCEANUS NAVIGATION CORP., MONROVIA*

A/C : ACCOUNT, ACCT

2. DESCRIPTION OF THE VESSEL : The contract is fixed onto a particularly named vessel, no substitute shall be allowed.

— *VESSEL :*

MV 'FAR EASTERN CAVALIER'

PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS

82,096.9MT DWT ON 14.45M SSW

GT/NT 44,543/26,987

LOA 229/BM 32.26 M

7 HO/HA, 3,489,046 CUFT GRAIN

14KN ON 32MT (BALLAST) AND

13.5KN ON 32MT (LADEN) VLSFO (380CST) + 0.1MT LSMGO

IN PORT 4 MT VLSFO PLUS 0.1 MT LSMGO

ALL ABOUT

→(請參閱 [Vessel description 說明.pdf](#) at

<http://www.dstm.ntou.edu.tw/files/15-1023-14823,c3628-1.php?Lang=zh-tw>

船東的保證(OWNERS WARRANTIES)事項:

- (1) DEADWEIGHT AND DRAFT
- (2) SPEED AND CONSUMPTION
- (3) FLAG & NATIONALITY
- (4) VESSEL'S SEAWORTHINESS 船舶的適航能力
- (5) VESSEL'S CLASSIFICATION 船舶的船級

- (6) VESSEL'S POSITION AT THE TIME SHE IS FIXED 船舶在訂約時的位置 (按美國法律，此項資訊為 WARRANTIES 的一項; 按英國法律，此項資訊卻為 CONDITIONS 的一項)

3. LAYDAYS AND CANCELLING DATE

—LAYCAN : JAN. 1—15, 2023

4. PLACE OF DELIVERY

—DEL : DLOSP ROTTERDAM, NETHERLAND, ATDNSHINC

DLOSP : DROPPING LAST OUTWARD SEA PILOT

ATDNSHINC : ALL TIME DAY AND NIGHT SUNDAY HOLIDAY INCLUDED

**In order for the vessel to be on-hired and the time charter to be effected, delivery of the vessel has to be made within the laydays and cancelling date at the place of delivery.

5. PLACE OF REDELIVERY

—REDEL : WWD

—REDEL : SINGAPORE TO JAPAN RANGE

—REDEL : DLOSP YOKOHAMA

WWD : WORLDWIDE

6. PERIOD

—PERIOD : 11—13 MONTHS MINUS OR PLUS 15 DAYS IN CHOPT

7. HIRE RATE

—HIRE : USD16,000. — PER DAY INCLUDING CREW OVERTIME, PAYABLE EVERY 15 DAYS IN ADVANCE.

8. TRADING EXCLUSION : 起碼必須包含保險合約所規定的除外區域。

— **TRADING ALWAYS VIA SAFE PORT, SAFE BERTH, SAFE ANCHORAGE (SPSBSA), ALWAYS AFLOAT, ALWAYS ACCESSIBLE (AAAA), ALWAYS WITHIN INSTITUTE WARRANTY LIMITS (IWL), EXCLUDING : Iran, Iraq, Oman, Djibouti, Eritrea, Israel, Cyprus, Lebanon, North Korea, Nigeria, Somalia, Yemen, war and war like (whether war declared or not) countries/areas and countries/areas under official United Nations sanction/embargo. Haiti allowed but all costs/expenses related to stowaways to be for Charterers account/time and responsibility. The orders of Vessel's underwriters are always to be followed.**

CHARTERERS' GUARANTEE OF TRADING THE VESSEL TO SAFE PORTS,
SAFE BERTHS, SAFE ANCHORAGES.

9. CARGO EXCLUSION：起碼必須包含船體保險合約與責任險合約的規定，並應符合 IMDG Code (國際危險貨物規則，
<http://www.mantraco.com.tw/OCEAN%20DGR/D260526.htm>)。
- CARGO EXCLUSION：ARMS，EXPLOSIVES，AMMUNITION，NUCLEAR MATERIAL，.....

10. HOLD CLEANING

- ILOHC：USD4,000. — AFTER GRAIN
USD6,500. — AFTER PETCOKE
USD4,500. — AFTER OTHERS

ILOHC：IN LIEU OF HOLD CLEANING

11. CABLE AND ENTERTAINMENT EXPENSES

- CABLE N ENTERTAINMENT：USD1,200 PER MONTH OR PRO RATA FOR PART OF A MONTH

12. BUNKER CLAUSE

- BUNKERS：BUNKERS ON DELIVERY (BOD) TO B AS ON BOARD, VLSFO ABT 900 MT AND LSMGO ABT 60MT.
THE VALUE OF BOD TO B PAID BY CHARTERERS TOGETHER WITH THE 1ST HIRE PAYMENT.
BUNKERS ON REDEL (BOR) TO B ABT SAME QTTY AS ON DEL. CHARTERERS ARE ENTITLED TO DEDUCT THE VALUE OF BOR FROM LAST SUFFICIENT HIRE.
BUNKER PRICES ARE US\$700 PER METRIC TON FOR VLSFO, AND US\$950 PER METRIC TON FOR LSMGO

論時租船的 Bunker Clause

- 1). 交船時，租船人須給付船東船上存油的價值，即向船東購買了船上的存油。
- 2). 還船時，租船人可自租金的付款中扣除還船時船上存油的價值，即將船上存油賣給船東。
- 3). 在租期當中，船上的油料（燃料油與船用柴油）是屬於租船人的財產。
- 4). 此一條款規範了交/還船時，船上應有的油料數量。

13. COMMISSIONS AND ADDRESS COMMISSION

—*COMM : 2.5PCT OF ADDCOMM TO CHARTERERS OR THEIR NOMINEES ,
1.25PCT OF COMM TO JASON CHARTERING INC. AND 1.25PCT OF
COMM TO LEXINGTON BROKING CORP.*

*Calculation of commissions, address commission, Charterers' net hire payment and Owners' net hire income.

14. CHARTER PARTY

—*OTHERS AS PER CHARTERERS PROFORMA C/P WITH LOGICAL
AMENDMENT*

15. SUBJECT CLAUSE

—*SUB TO CHARTERERS BOARD APPROVAL FOR RECONFIRMATION
WITHIN 2 WORKING DAYS AMTF*

AMTF : AFTER MAIN TERMS FIXED

BBB. Bareboat Charter Parties: main terms, clauses and forms.

A. Introduction

1. The charterer leases the vessel from the owner and takes full control and management of the vessel, appointing the Master and crew. The charterers provide stores, bunkers and undertake repairs, insurance and dry docking.
2. Under a bareboat charter, charterers pay:
 - a. Hire (monthly, in advance);
 - b. Master, officers and Crews;
 - c. Lubricating oils and boiler water;
 - d. Provisions and stores;
 - e. Repairs (except for latent defects);

Latent defect: something that is not discoverable by reasonable diligent examination.

Once the charterer takes the vessel, all the warranties, the warranty of seaworthiness and everything else fall on the charterer. The owner has the obligation of the warranty of delivering a seaworthy vessel at the beginning of the charter, after that, the warranty of seaworthiness belongs to the charterer. However, in case of latent defects which might show up after the vessel had been delivered to the charterer, for this, the owner would still be responsible.

租船人負擔船舶船級之維持及適航性

因此如果不是因為交船前與交船時存在的隱藏瑕疵(inherent vice)造成船舶無法營運，租船人不得因船舶故障而主張離租(off hire)，船東得享有租船人給付全年 365 或 366 天的租金。

- f. Hull and machinery insurance (the owner is beneficiary for the total loss of the ship);
- g. P & I insurance (Protection and Indemnity insurance);
- h. Voyage expenses : if and when the charterer charters the vessel out in voyage charters.

From Item a ~ h, we can infer that

➔租船人負擔除折舊費用與船舶貸款之還本付息(船東支付)以外的所有成本與費用

➔船東須負擔折舊費用、利息費用、公司管理費用與船舶貸款的還款。

i. 載貨證券的簽發：

①船長，②空船租賃租船人，③經前二者授權之代理行

j. 運送人之責任：租船人負擔

k. 相對地，請思考 Bareboat charterers 的成本計算！

l. Bareboat charters: a financial instrument !

通常是航商取得船舶營運的方式之一 ==> *以租代購；*售後回租。

為(財務或營運)租賃合約，通常是長期性質，租期甚或至船舶使用年限截止

例如，①租船人：石油公司、貨櫃航運公司；②船東：德國 KG 或挪威 KS 基金公司如 König & Cie, Flotten- Fonds, Dr Peters GmbH

3. The actual name or correct name is not “BAREBOAT CHARTER”, it is “**DEMISE CHARTER**”. Because the element that determines whether or not a charter is a demise charter is the element of “control”, whose servants are those crews and officers?

B. Bareboat charter party form :

BARECON 2001: standard bareboat charter party recommended by BIMCO.

C. MAIN TERMS IN A BAREBOAT CHARTER

空船租賃的主要條款：

1. CHARTERERS

— *A/C TAI-PROSPERITY NAVIGATION CORP., PANAMA*

A/C : ACCOUNT, ACCT

2. DESCRIPTION OF THE VESSEL

— *VESSEL :*

MV 'FAR EASTERN CAVALIER'

PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS

82,096.9MT DWT ON 14.45M SSW

GT/NT 44,543/26,987

LOA 229/BM 32.26 M

7 HO/HA, 3,489,046 CUFT GRAIN

14KN ON 32MT (BALLAST) AND

13.5KN ON 32MT (LADEN) VLSFO (380CST) + 0.1MT LSMGO

IN PORT 4 MT VLSFO PLUS 0.1 MT LSMGO

ALL ABT

船東的保證(OWNERS WARRANTIES)事項:

Seaworthiness (upon delivery) of the vessel.

3. LAYDAYS AND CANCELLING DATE

— *LAYCAN : JAN. 1 – 30, 2023*

4. PLACE OF DELIVERY

— *DEL : DLOSP KAOHSIUNG, ATDNSHINC*

*ATDNSHINC : ALL TIME DAY AND NIGHT SUNDAY HOLIDAY
INCLUDED*

5. PLACE OF REDELIVERY

- REDEL : *WWD*
- REDEL : *SINGAPORE TO JAPAN RANGE*
- REDEL : *DLO,SP YOKOHAMA*

WWD : WORLDWIDE

6. PERIOD

- PERIOD : *10 CALENDAR YEARS MINUS OR PLUS 15 DAYS IN CHOPT*

7. HIRE RATE

- HIRE : *USD9,500. — PER DAY*

8. TRADING EXCLUSION

- TRADING EXCLUSION : *WORLDWIDE TRADING IS ALLOWED, BUT SO THAT THE VESSEL SHALL NOT BE SUBJECT TO, OR THREATENED WITH, BLACKLISTING OR BOYCOTTING AT TIME OF REDELIVERY.*

9. BUNKER CLAUSE

- BUNKERS : *BUNKERS ON DEL (BOD) TO B AS ON BOARD, VLSFO ABT 900 MT AND LSMGO ABT 60MT. THE VALUE OF BOD TO B PAID BY CHARTERERS TOGETHER WITH THE 1ST HIRE PAYMENT. BUNKERS ON REDEL (BOR) TO B ABT SAME QTTY AS ON DEL. CHARTERERS ARE ENTITLED TO DEDUCT THE VALUE OF BOR FROM LAST SUFFICIENT HIRE. BUNKER PRICES ARE US\$700 PER METRIC TON FOR VLSFO, AND US\$950 PER METRIC TON FOR LSMGO*

*10. CHARTERERS PURCHASE OPTION (CALL OPTION)

- CHARTERERS HAVE A RIGHT TO PURCHASE THE VESSEL (CHARTERERS' CALL OPTION) ON THE FOLLOWING DATES AND AT THE FOLLOWING PRICES ON STRICT "AS IS WHERE IS" TERMS:
 - 31 DECEMBER 2027 - US\$21 MILLION*
 - 31 DECEMBER 2028 - US\$20 MILLION*
 - 31 DECEMBER 2029 - US\$18.5 MILLION*
 - 31 DECEMBER 2030 - US\$17.5 MILLION*
 - 31 DECEMBER 2031 - US\$16 MILLION*
 - 31 DECEMBER 2032 - US\$14.5 MILLION*

USE OF THIS CALL OPTION MUST BE DECLARED IN WRITING NOT LESS THAN 90 DAYS BEFORE THE DATE ABOVE.

*11. SALE OF THE VESSEL

— OWNERS HAS THE RIGHT TO SELL THE VESSEL AT ANY TIME DURING THE CHARTER, PROVIDING THAT THE OWNERS SHALL GIVE THE CHARTERER 6-MONTH PRIOR NOTICE BEFORE THE SALE.

12. COMMISSIONS AND ADDRESS COMMISSION

—COMM : 2.5PCT OF ADDCOMM TO CHARTERERS OR THEIR NOMINEES , 1.25PCT OF COMM TO JASON CHARTERING INC. AND 1.25PCT OF COMM TO LEXINGTON BROKING CORP.

*Calculation of commissions, address commission, Charterers' net hire payment and Owners' net hire income.

13. CHARTER PARTY

— OTHERS AS PER "BARECON 89" C/P

14. SUBJECT CLAUSE

—SUB TO CHARTERERS BOARD APPROVAL FOR RECONFIRMATION WITHIN 2 WORKING DAYS AMTF

AMTF : AFTER MAIN TERMS FIXED

*'s ARE OPTIONAL.

CCC. Voyage Charter Parties: main terms, clauses and forms.

A. 簡介論程傭船契約 (Voyage Charter Parties)

- a. 由船東向租船人承諾並負擔一運送任務，提供船舶全部或部份艙位裝運約定的貨物(約定的貨物數量、種類、項目、品名、情狀....)，從一港運至另一港，由租船人支付約定運費的契約，租船人付費享受量身訂作的貨物運送服務。可區分為①單航次論程傭船(single voyage charters)②連續航次論程傭船(consecutive voyage charters)③長期論程傭船運送合約(Contract of affreightments, COAs)。
- b. 租船人按約提供足額之約定貨物供裝載
貨量不足額→Deadfreight 空艙(載)運費
ROC 海商法，第四十八條：以船舶之全部或一部供運送者，託運人所裝載貨物，不及約定之數量時，仍應負擔全部之運費，.....
自約定之裝貨港運至卸貨港
*重要課題：船舶裝貨量的計算
- c. 運費 (Freight = Freight rate × cargo intake in MT)
- d. Laytime：裝貨時間/卸貨時間的約定與計算。
在 F.I.O.條件下，船東與租船人約定，用以限制租船人耽誤船舶船期、花費在裝貨或與卸貨的時間。
ROC 海商法，第五十二條：
以船舶之全部或一部供運送者，運送人非於船舶完成裝貨或卸貨準備時，不得簽發裝貨或卸貨準備完成通知書。
裝卸期間自前項通知送達之翌日起算，期間內不工作休假日及裝卸不可能之日不算入。但超過合理裝卸期間者，船舶所有人得按超過之日期，請求合理之補償。
前項超過裝卸期間，休假日及裝卸不可能之日亦算入之。
- e. Demurrage money，延滯費，延滯罰款，慢裝（卸）罰款；(PRC)滯期費
租船人超用裝(或卸)貨時間，將被船東懲以罰款。
Despatch money，快速費，快速獎金，快裝（卸）獎金；(PRC)速遣費
租船人未超用裝(或卸)貨時間，提早完成裝(或卸)貨工作，將可受船東施以獎勵。
- f. 載貨證券的簽發：
①船長、②船東，③經前二者授權之代理
- h. 運送人之責任：船東負擔
- i. 固定成本：船東
變動（航次）成本：船東

B. Examples of some voyage charter party forms

- a. GENCON 1922 (74/76/94) : for general use.
- b. BHPVOY : for BHP's own cargoes (coal, iron ore, other minerals).

- c. BALTIMORE FORM C 1919 (1963/74/75/76/82): general purpose grain.
- d. AMWELSH: for coal cargo.
- e. RIODOCEORE: for iron ore exported from Brazil.
- f. FERTIVOY (1978/1988): for fertilizer by Canpotex.
- g. DAMSALT: for salt cargo ex Dampier, West Australia.
- h. SUGAR '99: for bulk sugar.
- i. CEMENTVOY 1990: for bulk cement and clinker.
- j. NANYOZAI: for the log trade from south East Asia to Japan.

C.MAIN TERMS IN A VOYAGE CHARTER

論程傭船的主要條款：

1. CHARTERERS

- *A/C BUGFEYS GRAIN COMPANY, U.S.A.*

2. DESCRIPTION OF CARGO

- *CGO/QUANTITY : 60,000MT 5PCT MOLOO HEAVY GRAIN OF YELLOW SOYBEAN IN BULK*

*Minimum/maximum cargo quantities, owners' option, no charterers' option!

*Calculation of cargo quantity lifted → **CHAPTER VIII, 4**

3. DESCRIPTION OF THE VESSEL

- *VESSEL : MV 'FAR EASTERN CAVALIER'*
PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS
82,096.9MT DWT ON 14.45M SSW
GT/NT 44,543/26,987
LOA 229/BM 32.26 M
7 HO/HA, 3,489,046 CUFT GRAIN
ALL ABT
- *VESSEL : MV 'FAR EASTERN CAVALIER' OR HER SUBSTITUTE*
PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS
82,096.9MT DWT ON 14.45M SSW
GT/NT 44,543/26,987
LOA 229/BM 32.26 M
7 HO/HA, 3,489,046 CUFT GRAIN
ALL ABT
- *VESSEL : MV 'FAR EASTERN NAVIGATION CORP. TO BE NAMED'*
- *VESSEL : MV 'FAR EASTERN NAVIGATION CORP. TO BE NOMINATED'*

4. LAYDAYS AND CANCELLING DATE

— *LAYCAN : FEBRUARY 1 – 14, 2023*

5. LOADING PORTS

— *LOADING PORT : 1/2 SB 1 SP U.S. GULF COAST, INTENTION IS NEW ORLEANS AREA, LOUISIANA*

6. DISCHARGING PORTS

— *DISCHG PORT : 1/2 SB 1 SP KAOHSIUNG, TAIWAN*

* For 5 & 6, issues such as: 1. Calling additional ports for loading or discharging; 2. Geographical rotation.

7. LOADING AND DISCHARGING RATE

— *L/D RATE : 10,000MT/5,000MT WWDSHEX EIU BENDS*

WWDSHEX: WEATHER WORKING DAY SUNDAY HOLIDAY
EXCEPTED

EIU: EVEN IF USED

8. FREIGHT RATE

— *FRT RATE : USD 50.00 PER MT F.I.O.S.T.*

*Deadfreight and its calculation

*Owners' guaranteed freight income: DESCRIPTION OF CARGO + FREIGHT RATE

9. FREIGHT PAYMENT

— *FRT PAYMENT: FREIGHT TO BE FULLY PREPAID TO OWNERS IN U.S. DOLLARS IN NEW YORK ON COMPLETION OF LOADING, SIGNING AND RELEASING BILLS OF LADING, DISCOUNTLESS, AND NON-RETURNABLE, SHIP AND/OR CARGO LOST OR NOT LOST.*

10. DEMURRAGE AND DESPATCH RATE

— *DEM/DES : USD10,000/DHD PER DAY ON LTS*

DHD: DESPATCH HALF DEMURRAGE

LTS: LAYTIME SAVED

11. AGENTS

- *AGENTS: OWNERS AGENTS AT BOTH ENDS*

12. COMMISSION AND ADDRESS COMMISSION

- *COMM: 2.5PCT OF ADDCOMM TO CHARTERERS OR THEIR NOMINEES, 1.25PCT OF COMM TO GOOD WAY CHARTERING INC. AND 1.25PCT OF COMM TO GNT SHIPPING N CHARTERING CO.*

*Calculation of commissions, address commission, Charterers' net freight payment and Owners' net freight income.

13. CHARTER PARTY

- *OTHERWISE AS PER CHARTERERS' PROFORMA CHARTER PARTY WITH LOGICAL AMENDMENT*

14. SUBJECT CLAUSE

- *SUB TO SHIPPERS AND RECEIVERS RECONFIRMATION TO BE LIFTED 2 WORKING DAYS AMTF*

Comments:

Time Charters – 保障船東的租金收入不受外在因素(如天候、碼頭機具故障、碼頭工人罷工、碼頭壅塞、.....等因素)影響。

Bareboat Charters – 帶給船東固定且可預估的租金收入，是投資型船東完美的投資工具。

Voyage Charters – 掌握自營的資源與能力。

DDD. 通常業務經營的成交管道(行銷管道)：

	Time Charters	Bareboat Charters	Voyage Charters
Via S&P Brokers (Sale and Purchase Brokers) 經由買賣船經紀商仲介	×	√	×
Via Chartering Brokers 經由租傭船經紀商仲介	√	×	√
Direct Fixing 直接與租船人成交	×	√	√

Chartering chain -

VII. 不定期航運的市場行情指標

1. Baltic Exchange 波羅的海交易所

座落在英國倫敦之 St. Mary Axe 38 號

乃是由船舶經紀商、運費衍生性商品經紀商，大型國際貿易商，航商與貨主所組成之會員組織。此外也有一些以專業的個人或組織身份加入波羅的海交易所的，包括海事律師、海事仲裁人、保險公司、銀行家、船級會社，及飛行器承租人 (Air Charterers)。此外，Baltic Exchange：

- ① 曾經是主要作為船舶與貨物間相配合，以提供船舶運送或出租服務的航運交易所。另外也處理船舶出售、購買、空運租賃、運費衍生性商品(①Freight derivatives contracts，自 1985 年~2001 年的 BIFFEX, the Baltic International Freight Futures Exchange；②波羅的海國際運費期貨交易所，及自 2011 年 6 月 9 日起”BaltEx” 運費衍生性商品交易平台，此一交易平台的營運呈現持續的虧損，Baltic Exchange 已於 2017 年 12 月 29 日將該交易平台結束營業)等交易，它曾是全球最大的實體租船仲介市場。
- ② 它是全球用以交易及結算實質與運費衍生性商品合約 (Freight derivatives contracts) 相關資訊(運費指數、各路線運費指數、每月最後 7 個交易日平均值與月平均值) 最主要的獨立來源。
- ③ 2016 年 11 月 8 日，由新加坡交易所(Singapore Exchange, SGX)購入 Baltic Exchange 主要股權，成為 SGX 旗下的一個交易所。

2. 波羅的海交易所海運市場價格指標 (Baltic Indices)：

Baltic Exchange 發佈的市場指標包括：

- A. 每個英國的交易日發佈：這些是主要原材料的海運價格評估指數。這些指數由世界各地主要的船舶經紀商，於每個英國的交易日，以每噸運費與每日租金的基礎，對運輸各種散裝液體貨物(如原油和石油產品)與乾散裝貨物(如煤和鐵礦)的海運費用所作的評估。然後這些資料由波羅的海交易所整理和出版。
 - a. BCI (Baltic Exchange Cape Index) & its Sub-indices
波羅的海岬型船散裝運費指數與組成路線之運費指數
 - b. BPI (Baltic Exchange Panamax Index) & its Sub-indices
波羅的巴拿馬極限型散裝船運費指數與組成路線之運費指數
 - c. BSI (Baltic Exchange Supramax Index) & its Sub-indices
波羅的超級極限型散裝船運費指數與組成路線之運費指數
 - d. BHSI (Baltic Exchange Handysize Index) & its Sub-indices
波羅的輕便型散裝船運費指數及組成路線之運費指數

e. BDI (Baltic Exchange Dry Index)

波羅的散裝乾貨船綜合運費指數

From 1 March 2018 the BDI has been re-weighted to the following ratios of timecharter assessments: 40% Capesize, 30% Panamax and 30% Supramax and no longer included the Handysize timecharter average.

$$[(\text{Capesize 5TC average} * 40\%) + (\text{Panamax TC average} * 30\%) + (\text{Supramax TC average} * 30\%)] * 0.10907849$$

f. BDTI (Baltic Exchange Dirty Tanker Index) & its Sub-indices

波羅的原油油輪運費指數及組成路線之運費指數

g. BCTI (Baltic Exchange Clean Tanker Index) & its Sub-indices

波羅的成品油油輪運費指數與組成路線之運費指數

h. Baltic LPG route indices

波羅的液化石油氣槽船路線運價評估指數

i. Baltic Liquefied Natural Gas (BLNG) routes indices

波羅的液化天然氣槽船路線運價評估指數

j. 每日租傭船市場成交報告 (Daily fixture report)

- k. BFA (Baltic Exchange Forward Assessment) : is a daily average of the current bids and offers at the end of the trading day for forward prices on dry and wet routes, provided by a panel of FFA Brokers.

波羅的遠期運價協議評估指數

B. 每週發佈：

a. BSPA (Baltic Exchange Sale & Purchase assessment)

波羅的買賣船舶價格評估指數

b. BSRA (Baltic Exchange Ship Recycling Assessment)

波羅的船舶拆解價格評估指數

C. 每月發佈：

Forward Freight Agreement Settlement Prices

遠期運費協議結算價格：每月最後交易日發佈

3. 其他運費市場價格指標: S&P Global Platts:

<https://www.platts.com/about>

範例：

<https://www.platts.com/IM.Platts.Content/ProductsServices/Products/cleantankerwire.pdf>

<https://www.platts.com/IM.Platts.Content/ProductsServices/Products/dirtytankerwire.pdf>

<https://www.platts.com/IM.Platts.Content/ProductsServices/Products/dry-freight-wire.pdf>

規格說明：

<https://www.spglobal.com/platts/en/our-methodology/methodology-specifications>

請在 Google 環境下開啟上述網站。

THE BALTIC CAPESIZE INDEX (BCI) ROUTES

THE BALTIC CAPESIZE INDEX ROUTES

C2 – Tubarao to Rotterdam 160,000 long tons iron ore, 10% more or less in owner's option, free in and out, 6 days Sundays & holidays included all purpose, 6 hours turn time at loading port and 6 hours turn time at discharge port, 0.5% in lieu of weighing. Freight based on long tons. Laydays 20 days forward from date of index, cancelling maximum 35 days forward from date of index. Vessel's age max. 18 years. Freight based on long tons. 5% total commission.

C3 – Tubarao to Qingdao, 160,000 or 170,000 mt iron ore, 10% more or less in owner's option, free in and out, 18m swad, scale load/30,000mt Sundays & holidays included discharge. 6 hours turn time at loading port, 24 hours at discharge port. Laydays 20 days forward from date of index, cancelling maximum 35 days forward from date of index. Vessel's age max. 18 years. Freight based on metric tons. 5% total commission.

C4 – Richards Bay to Rotterdam 150,000mt coal 10% more or less in owner's option, free in and out and trimmed, Scale load/25,000mt Sundays & holidays included discharge. 18 hours turn time at loading port and 12 hours at discharge port. Laydays 25 days forward from date of index, cancelling 40 days forward from date of index. Vessel's age max. 15 years. Freight based on metric tons. 5% total commission.

C5 – West Australia to Qingdao, 160,000 or 170,000mt iron ore, 10% more or less in owner's option, free in and out, 18m swad, Scale load/30,000 Sundays & holidays included discharge, 6 hours turn time at loading port and 24 hours at each discharge port. Laydays 10 days forward from date of index, cancelling max. 20 days forward from date of index. Vessel's age max. 18 years. Freight based on metric tons. 5% total commission.

C7 – Bolivar, Colombia to Rotterdam 150,000 or 160,000mt coal, 10% more or less in owner's option, free in and out, trimmed, 50,000mt Sundays & holidays included loading/25,000mt Sundays holidays included discharge, 12 hours turn time at loading port and 12 hours turn time at discharge port. Laydays 20 days forward from date of index, cancelling max. 35 days forward from date of index. Vessel's age max. 15 years. 5% total commission.

TIME CHARTER ROUTES

Basis on the Baltic Capesize 2014 vessel :

180,000mt dwt on 18.2m SSW draft

Max age 10 years

198,000cbm grain

LOA 290m

Beam 45m

15 knots ballast/14 knots laden on 62mt fuel oil (380 cst), no diesel at sea

When considering the prevailing time charter market rate for the Baltic capesize vessel, panellists should assume that, if steaming at 12 knots laden or 13 knots ballast, the vessel will consume 43mt fuel oil, no diesel at sea.

C8_14 –Delivery Gibraltar-Hamburg range, laydays/cancelling 3/10 days from index date, transatlantic

round voyage, redelivery Gibraltar-Hamburg range, duration 30-45 days. Basis on the Baltic Capesize 2014 vessel. 5% total commission. Basis on the Baltic Capesize 2014 vessel. Nominal Weighting = 25.0%

C9_14 –Delivery Amsterdam-Rotterdam-Antwerp range or passing Passero, laydays/cancelling 3/10 days from index date, redelivery China-Japan range, duration about 65 days. Basis on the Baltic Capesize 2014 vessel. 5% total commission. Nominal Weighting = 12.5%

C10_14 –Delivery China-Japan range, laydays/cancelling 3/10 days from index date, redelivery China-Japan range, duration 30-40 days. Basis on the Baltic Capesize 2014 vessel. 5% total commission. Nominal Weighting = 25.0%

C14 – Delivery Qingdao, China spot or retroactive up to a maximum 15 days after sailing from Qingdao, round voyage via Brazil, redelivery China-Japan range, duration 80-90 days. Basis the Baltic Capesize 2014 vessel. 5% total commission. Nominal Weighting = 25.0%

C16 – Delivery Qingdao-Beilun range, 3-10 days from index date for a trip via Australia or Indonesia or US west coast or South Africa or Brazil, redelivery UK-Continent-Mediterranean Sea within Skaw-Passero range, duration to be adjusted to 65 days. Basis the Baltic Capesize 2014 vessel. 5% total commission. Nominal Weighting = 12.5%

C17 – Saldanha Bay to Qingdao. 170,000mt iron ore 10% more or less in owner’s option, free in and out trimmed. Laydays/cancelling 20/30 days from index date. 90,000 Sundays + holidays included load / 30,000 Sundays + holidays included discharge. 18 hours turn-time at loading port, 24 hours turn-time at discharge port. Max age 18 yrs. 5 % total commission.

The weighted time-charter average figure provided by the Baltic to facilitate both the FFA and physical market will be calculated as follows:

Route no	Description	Weighting
C8_14	Transatlantic RV	25%
C9_14	Fronthaul	12.5%
C10_14	Pacific RV	25%
C14	China-Brazil RV	25%
C16	Revised backhaul	12.5%

THE BALTIC PANAMAX INDEX (BPI TESS 82) ROUTES

Baltic Panamax vessel for time charter routes is a non-scrubber fitted vessel based on the following description:

82,500mt dwt on 14.43m SSW draft

Max age 12 years

LOA 229m, beam 32.25m, TPC 70.5

97,000 cubic meters grain capacity

13.5 knots laden on 33mt fuel oil (380cs t) / 14 knots ballast on 31mt fuel oil (380cs t) + 0.1 MGO at sea

11.5 knots laden on 22mt fuel oil (380cs t) / 12.5 knots ballast on 23mt fuel oil (380cs t) + 0.1 MGO at sea

Time charter Weightings: P1A_82 – 25%, P2A_82 – 10%, P3A_82 - 25%, P4_82 – 10%, P6_82 – 30%

P1A_82 – Delivery Skaw-Gibraltar range, loading 15-20 days from the index date, for a trans-Atlantic round voyage of 40-60 days, redelivery Skaw-Gibraltar range. 25% weighting.

P2A_82 – Delivery Skaw-Gibraltar range, loading 15-20 days from the index date, for a trip of 65-80 days, redelivery H.K.-S Korea range including Taiwan. 10% weighting.

P3A_82 – Delivery H.K.-S Korea including Taiwan, loading 15-20 days from the index date, for a 35-50 days trip redelivery H.K.-S Korea including Taiwan. 25% weighting.

P4_82 – Delivery H.K.-S Korea including Taiwan, loading 15-20 days from the index date, for a 55-70 day trip redelivery Skaw-Gibraltar range. 10% weighting.

P6_82 – Delivery H.K.-S Korea including Taiwan, loading 30-35 days from the index date, for a 75-90 day trip redelivery H.K.-S Korea including Taiwan. 30% weighting.

- All the routes are basis 5% total commission.
- All routes are basis a cargo of grain, coal, bauxite, pet-coke or other similar bulk harmless cargo.

THE BALTIC SUPRAMAX INDEX (BSI) ROUTES

THE BALTIC SUPRAMAX ROUTE DESCRIPTIONS

The new benchmark supramax vessel (From 31 July 2015)

“Tess 58” type vessel of the following description:

- 58,328 metric tons dwt on 12.80 meters draft in summer salt waters.
- Max age 15 years
- LOA 189.99m, beam 32.26m.
- 4 x 30t Cranes + 12 CBM grabs
- 5 holds/hatches
- 72,360.3 CBM grain / 70,557.8 CBM bale
- 14 knots ballast on 32mt fuel oil (380cst), no diesel at sea / 14 knots laden on 33mt fuel oil (380cst) no diesel at sea
- 12.5 knots ballast on 23mt fuel oil (380cst), no diesel at sea / 12 knots laden on 24mt fuel oil (380cst) no diesel at sea.

T/C weightings : • S1B_58 - 5% • S1C_58 - 5% • S2_58 - 20% • S3_58 - 15% • S4A_58 - 7.5% • S4B_58 - 10% • S5_58 - 5% • S8_58 - 15% • S9_58 - 7.5% • S10_58 - 10%

Full route descriptions:

S1B_58

Delivery passing Canakkale, laydays/cancelling 5/10 days from index date, redelivery China-South Korea, duration 40-50 days. Basis the Baltic supramax vessel. 5% total commission.

(Weighting 5%)

S1C_58

Delivery SW Pass, laydays/cancelling 3/10 days from index date, redelivery North China-S Japan (Shanghai-Tokyo Bay range), duration 50-55 days. Basis the Baltic supramax vessel. 5% total commission.

(Weighting 5%)

S2_58

Delivery North China (Shanghai-Dalian range), laydays/cancelling 5/10 days from index date, for an Australian or transpacific round voyage, redelivery North China (Shanghai-Dalian range), duration 40-50 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 20%)

S3_58

Delivery North China (Shanghai-Dalian range), laydays/cancelling 5/10 days from index date, redelivery West Africa (Dakar-Douala range), duration 55-65 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 15%)

S4A_58

Delivery US Gulf, laydays/cancelling 5/10 days from index date, redelivery Skaw-Passero range, duration 25-30 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 7.5%)

S4B_58

Delivery Skaw-Passero range, laydays/cancelling 5/10 days from index date, redelivery US Gulf, duration

25-30 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 10%)

S5_58

Delivery West Africa (Dakar-Douala range), laydays/cancelling 5/10 days from index date, trip via east coast South America, redelivery North China (Shanghai-Dalian range), duration 60-65 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 5%)

S8_58

Delivery south China (Fuzhou-Fangcheng range including Taiwan), laydays/cancelling 5/10 days from index date, trip via Indonesia, redelivery east coast India (Chennai-Paradip range), duration 20-25 days. Basis the Baltic supramax vessel. Cargo basis coal. 5% total commission. (Weighting 15%)

S9_58

Delivery West Africa (Dakar-Douala range), laydays/cancelling 5/10 days from index date, trip via east coast South America, redelivery Skaw-Passero range, duration 45-50 days. Basis the Baltic supramax vessel. 5% total commission. (Weighting 7.5%)

S10_58

Delivery south China (Fuzhou-Fangcheng range including Taiwan), laydays/cancelling 5/10 days from index date, trip via Indonesia, redelivery South China (Fangcheng-Fuzhou range), duration 20-25 days. Basis the Baltic supramax vessel. Cargo basis coal. 5% total commission. (Weighting 10%)

BALTIC EXCHANGE HANDYSIZE INDEX (BHSI) ROUTES

Baltic Handysize 38 vessel for time charter routes is a non-scrubber fitted vessel based on the following description:

Single-deck self-trimming geared bulk carrier

38,200mt dwt on 10.538m SSW

LOA 180m / Beam 29.8m / TPC 49

47,125 cubic meters grain / 45,300 cubic meters bale

5 holds / 5 hatches, 4 x 30 ton cranes

Speed & consumptions including main engine & auxiliary engines:

14 knots on 26mt IFO (380 CST) laden/24mt IFO (380 CST) ballast + 0.1 MDO at sea

12 knots on 18mt IFO (380 CST) laden/17mt IFO (380 CST) ballast + 0.1 MDO at sea

Time charter Weightings:

HS1_38 12.5%, HS2_38 12.5%, HS3_38 12.5%, HS4_38 12.5%, HS5_38 20%, HS6_38 20%, HS7_38 10%

Route: HS1 - Delivery Skaw-Passero range, laydays/cancelling 5/10 days from index date, for a trip of 35-45 days, redelivery Recalada-Rio de Janeiro range. Basis the Baltic handysize vessel. 5% total commission. Weighting 12.5%

Route: HS2 - Delivery Skaw-Passero range, loading laydays/cancelling 5/10 days from index date, redelivery Boston-Galveston range. Basis the Baltic handysize vessel. 5% total commission. Weighting 12.5%

Route: HS3 - Delivery Recalada-Rio de Janeiro range, loading laydays/cancelling 5/10 days from index date, for a trip of 35-45 days, redelivery Skaw-Passero range. Basis the Baltic handysize vessel. 5% total commission. Weighting 12.5%

Route: HS4 - Delivery Recalada-Rio de Janeiro range, loading laydays/cancelling 5-10 days from the index date, for a 35-45 days trip via USG or NCSA redelivery Skaw-Passero range. Basis the Baltic handysize vessel. 5% total commission. Weighting 12.5%.

Route: HS5 - Delivery SE Asia (Krabi-Campha range including Malaysia, Indonesia and Philippines) laydays/cancelling 5-10 days from the index date, for a 30-45 day trip redelivery Singapore-Japan range including China. Basis the Baltic handysize vessel. 5% total commission. 20% weighting.

Route: HS6 - Delivery North China-South Korea-Japan range, laydays/cancelling 5-10 days from the index date, for a 30-45 day trip redelivery North China-South Korea-Japan range. Basis the Baltic handysize vessel. 5% total commission. 20% weighting.

Route: HS7 - Delivery North China-South Korea-Japan, 5-10 days from the index date, for a 30-45 day trip redelivery SE Asia (Krabi-Campha range including Malaysia, Indonesia and Philippines). Basis the Baltic handysize vessel. 5% total commission. 10% weighting.

➤ All routes are basis a cargo of grain, coal, bauxite, petcoke, steel or other similar bulk harmless cargo.

THE BALTIC INTERNATIONAL TANKER INDEX ROUTES (BITR) THE BALTIC DIRTY TANKER (BDTI) ROUTE DESCRIPTIONS

All Worldscale and TCE rates include any costs where burning Low Sulphur fuel is mandated e.g. in an Emission Control Area (ECA).

All TCE values are calculated nett of commission.

TD21 does not contribute to the calculation of the BDTI.

TD1 – 280,000mt Middle East Gulf to US Gulf. Ras Tanura to Louisiana Offshore Oil Port (LOOP) Oil Terminal, New Orleans with laydays/cancelling 30 days ahead from index date. Maximum age 15 years. 2.5% total commission.

TD2 – 270,000mt Middle East Gulf to Singapore. Ras Tanura to Singapore with laydays/cancelling 20/30 days ahead from index date. Maximum age 20 years. 2.5% total commission.

TD3C – 270,000mt Middle East Gulf to China (Ras Tanura to Ningbo) 15/30 days from index date, max age 15 years, 3.75% total commission.

TD6 – Cross Mediterranean 135,000mt Black Sea/Med- Novorossiysk (based on berths other than CPC terminals) to Augusta with laydays/cancelling 10/15 days ahead from index date. Maximum age 15 years. 2.5% total commission.

TD7 – 80,000mt North Sea to Continent. Hound Point to Wilhelmshaven, with laydays/cancelling 7/14 days ahead from index date. Maximum age 15 years. 2.5% total commission.

TD8 – 80,000mt Crude and/or DPP Heat 135 F, Kuwait to Singapore (Mena al Ahmadi/Singapore) with laydays/cancelling 20/25 ahead from index date. Maximum age 20 years. 2.5% total commission.

TD9 – 70,000mt Caribbean to US Gulf. Puerto La Cruz (Jose Platform-TAECJ) to Corpus Christi with laydays/cancelling 7/14 days ahead from index date. Maximum age 15 years. Assessment basis – Oil Pollution Act premium paid. 2.5% total commission.

TD14 – 80,000mt. South East Asia to east coast Australia (Seria to Sydney). Laydays/cancelling 21/25 days from index date. Double hull, age max 15 years. 2.5% total commission.

TD15 – 260,000mt. West Africa to China (Serpentina FPSO and Bonny Offshore Terminal to Ningbo). Laydays/cancelling 20/30 days from index date. Double hull, age max 15 years. 2.5% total commission.

TD18 – 30,000mt fuel oil. Baltic to UK-Continent (Tallinn to Amsterdam). Laydays/cancelling 10/15 days from index date. Double hull, age max 15 years. 2.5% total commission.

TD19 – 80,000mt. Cross Mediterranean (Ceyhan to Lavera). Laydays/cancelling 10/15 days from index date. Age max 15 years. 2.5% total commission.

TD20 – 130,000mt West Africa to UK-Continent (offshore terminal Bonny to Rotterdam). Laydays/cancelling 15-25 days from index date. Age max 15 years. 2.5% total commission.

TD21 – 50,000mt fuel oil Caribbean to US Gulf (Mamonal to Houston) laydays/cancelling 7/14 days from index date. Age max 15 years. 2.5% total commission. [This route does not contribute to the BDTI]

TD23 – Suezmax 140,000 tonnes light AG/Med (Basrah to Lavera), loading 20-30 days from Index date, 2.5% total comm.

TD25 – Aframax 70,000 tonnes USG/Med (Corpus Christi to Trieste), loading 10-20 days from Index date. 2.5% total comm.

VLCC-TCE – VLCC Timecharter Equivalent. Contributing routes:

TD1 (280000mt ME Gulf to US Gulf) &

TD3C (270000mt ME Gulf to Japan).

The Baltic Exchange VLCC-TCE is based on the following description: 300,000mt dwt, double hull. 155,000 Suez Canal net tonnage, 160,000 gross tonnage. Ballast 12.5 knots on 53mt IFO 380cst / laden 13.0 knots on 70mt. In port: 2 days loading, 20mt per day. 2 days discharging, 110mt per day. 1.5 days waiting/anchor, 10mt per day.

Suezmax-TCE – Suezmax Timecharter Equivalent, contributing routes:

TD6 (135000mt Black Sea / Med) &

TD20 (130000mt West Africa to Continent).

The Baltic Exchange Suezmax-TCE is based on the following description: 160,000mt dwt, double hull. 82,000 gross tonnage. Ballast 12.5 knots on 44mt IFO 380 cst /laden 13.0 knots on 53mt. In port: 2 days loading, 12mt per day. 2 days discharging, 68mt per day. 1 days waiting/anchor, 10mt per day.

Aframax-TCE – Aframax Timecharter Equivalent, contributing routes:

TD7 (80000mt North Sea to Cont),

TD8 (80000mt Kuwait-Singapore (Crude/DPP Heat 135F),

TD9 (70000mt Caribs to US Gulf),

TD14 (80000mt SE Asia to EC Australia),

TD17 (100000mt Baltic to UK-Cont) &

TD19 (80,000mt. Cross Mediterranean, Ceyhan to Lavera).

The Baltic Exchange Aframax-TCE is based on the following description: 105,000mt dwt, double hull. 57,300 gross tonnage. Ballast 12.5 knots on 36mt IFO 380 cst /laden 13 knots on 43mt. In port: 2 days loading, 10mt per day. 2 days discharging, 55.0mt per day. 0.5 days waiting/anchor, 5mt per day.

The BITR Dirty is a daily average calculated from the reports of an independent international board of Panellists. These Panellists are required to make a daily assessment on a basket of voyage routes in the tanker bulk shipping market representative of BITR Dirty vessels.

THE BALTIC CLEAN TANKER (BCTI) ROUTE DESCRIPTIONS

All Worldscale and TCE rates include any costs where burning Low Sulphur fuel is mandated e.g. in an Emission Control Area (ECA).

All TCE values are calculated nett of commission.

TC8, TC14 & TC15 do not contribute to the calculation of the BCTI.

TC1 – 75,000mt CPP/UNL (Naphtha/Condensate) Middle East Gulf to Japan. Ras Tanura to Yokohama with laydays/cancelling 30/35 days ahead from index date. Maximum age 12 years. 3.75% total commission.

TC2_37 – Continent to USAC (CPP/UNL) – 37,000mt CPP/UNL. Continent to US Atlantic coast (Rotterdam to New York). Laydays/cancelling 10/14 days from index date. Age max 15 years. 3.75% total commission.

TC5 – 55,000mt CPP/UNL naphtha condensate. Middle East Gulf to Japan (Ras Tanura to Yokohama). Laydays cancelling 30/35 days from index date. Age max 15 years. 3.75% total commission.

TC6 – 30,000mt CPP/UNL. Algeria to European Mediterranean (Skikda to Lavera). Laydays cancelling 7/14 days from index date. Age max 15 years. 3.75% total commission.

TC7 – 30,000 mt CPP Singapore to Sydney 17/23 days from Index date, Double hull, max 15yrs age, 3.75% total commission.

TC8 – 65,000mt CPP/UNL middle distillate. Middle East Gulf to UK-Continent (Jubail to Rotterdam). Laydays/cancelling 20/30 days from index date. Double hull, age max 15 yrs. This route to be reported as US\$ per mt. 3.75% total commission. [This route does not contribute to the BCTI]

TC9 – 30,000mt CPP/UNL/ULSD middle distillate. Baltic to UK-Continent (Primorsk to Le Havre). Laydays/cancelling 5/10 days from index date. Double hull, age max 15 yrs. 3.75% total commission.

TC10 – 40,000 mt CPP/UNL South Korea to NOPAC West Coast, S. Korea to Vancouver BC – Rosarito range with laydays/cancelling 14-21 days in advance. Maximum age 15 years, double hull, oil major approved. This route to be reported as US\$ per mt.

TC11 – 40,000 mt CPP South Korea to Singapore, Laydays/cancelling 10-17 days in advance. Maximum age 15 years, double hull, oil major approved. This route to be reported as US\$ per mt.

TC12 – 35,000 mt, Naphtha West Coast India to Japan. Sikka (Jamnagar) to Chiba with laydays/cancelling 7/14 days in advance. Maximum age 15 years, double hull, oil major approved.

TC14 – 38,000mt CPP/UNL/diesel. US Gulf to Continent (Houston to Amsterdam). Laydays/cancelling 6/12 days from index date. Age max 15 yrs. 2.5% total commission. [This route does not contribute to the BCTI]

TC15 – 80,000mt naphtha. Skikda to Chiba, Laydays/cancelling 15/25 days from index date. Age max 15 years, 2.5% total commission. This will be assessed and published on a US\$ lump-sum basis. [This route does not contribute to the BCTI]

TC16 – 60,000mt CPP. Amsterdam to offshore Lome, Laydays/cancelling 10/14 days from index date. Age max 15 years, 2.5% total commission. This will be assessed and published basis Worldscale.

MR Atlantic Basket – MR Atlantic triangulation contributing routes: TC2 TCE & TC14 TCE.

MR Pacifi Basket – MR Atlantic triangulation contributing routes: TC11 TCE & TC12 TCE.

The BITR Clean is a daily average calculated from the reports of an independent international board of Panellists. These Panellists are required to make a daily assessment on a basket of voyage routes in the tanker bulk shipping market representative of BITR Clean vessels.

Remark to THE BALTIC DIRTY TANKER INDEX/THE BALTIC CLEAN TANKER INDEX :
These Indices are calculated as the simple equally weighted average of the Dirty & Clean routes currently comprising of the BITR, translated into index levels.

The Baltic Liquefied Petroleum Gas (Baltic LPG) Routes, BLPG

BLPG1 – 44,000mt, 5% more or less in owner's option, 1 to 2 grades, fully refrigerated liquefied petroleum gas, Laydays/cancelling 10/30 days from index date. Middle East Gulf to Japan (Ras Tanura to Chiba). Laytime 96 hours total. Age max 20 years. 1.25% total commission.

BLPG2 – 44,000mt, 5% more or less in owner's option, 1 to 2 grades, fully refrigerated liquefied petroleum gas, Laydays/cancelling 15-40 days from index date. US Gulf to Continent (Houston to Flushing). Laytime 96 hrs total. Age max 20 yrs. 1.25% total commission.

BLPG3 – 44,000mt, 5% more or less in owner's option, 1 to 2 grades, fully refrigerated liquefied petroleum gas, Laydays/cancelling 15-45 days from index date. US Gulf to Japan (Houston to Chiba, routing via Panama Canal with 2 days total waiting included). Laytime 96 hrs total. Age max 20 yrs. 1.25% total commission

LPG is a type of fuel consisting of hydrocarbon gasses in liquid form. LPG is used as a fuel in a range of applications including in heating and cooking appliances, industrial applications, in vehicles and as a propellant and refrigerant. LPG can be obtained primarily as propane, butane or a mixture of the two.

<https://www.balticexchange.com/en/data-services/routes.html>

The BLPG is a daily average calculated from the reports of an independent international board of Panellists. These Panellists are required to make a daily assessment of the prevailing LPG market.

The Baltic Liquefied Natural Gas (Baltic LNG) Routes

LNG1 Route

Delivery Gladstone, loading 25-40 days from Index date, for a derived round voyage via Tokyo of 23 days duration, with redelivery Gladstone, based on daily hire and lumpsum assessments with 1.25% total commission.

LNG2 Route

Delivery Sabine, loading 25-40 days from Index date, for a derived round voyage via Isle of Grain of 28 days duration, with redelivery Sabine, based on daily hire and lumpsum assessments with 1.25% total commission.

LNG3 Route

Delivery Sabine, loading 25-40 days from Index date, for a derived round voyage via Tokyo of 53 days duration (routing via Panama Canal), with redelivery Sabine, based on daily hire and lumpsum assessments with 1.25% total commission.

Vessel

Baltic LNG vessel is based on the following specification:

91,500 mt dwt TFDE propulsion. 160,000 cbm capacity. 17 knots on 100mt marine fuel or 210cbm LNG laden. 17knts on 95mt marine fuel or 16knts on 190cbm LNG ballast, 0.1% boil off. Port consumption idle 20mt marine fuel or 42cbm LNG per day and consumption working 40mt marine fuel or 85cbm LNG per day. Max age 20 yrs.

<https://www.balticexchange.com/en/data-services/routes.html>



Dry Indices and Weighted Timecharter Averages

15/Feb/2024
13:00
London

Baltic Dry Index 1,581 -1 ↓

Baltic Capesize Index 2,394 -42 ↓

Baltic Panamax Index 1,623 41 ↑

Baltic Supramax Index 1,058 6 ↑

Baltic Handysize Index 567 1 ↑

Route	Description	Size	Value (\$)	Change
BCI timecharter average	Weighted average of the 5 T/C routes	180000	19850	-351 ↓
BPI timecharter average	Weighted average of the 5 T/C routes	82500	14607	370 ↑
BSI timecharter average	Weighted average of the 10 T/C routes	58328	11640	68 ↑
BHSI timecharter average	Weighted average of the 7 T/C routes	38200	10213	16 ↑

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions.
Names of the panellists are available from the Baltic Exchange website.
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Baltic Capesize Index 15/Feb/2024
11:00
London

Baltic Capesize Index **2,394 -42 ↓**

Route	Description	Size (MT)	Value	Change
C2	Tubarao to Rotterdam (long tons)	160,000lt	10.236 \$/ton	-0.128 ↓
C3	Tubarao to Qingdao	160,000mt or 170,000mt	24.245 \$/ton	-0.03 ↓
C5	West Australia to Qingdao	160,000mt or 170,000mt	9.050 \$/ton	-0.21 ↓
C7	Bolivar to Rotterdam	150,000mt or 160,000mt	13.114 \$/ton	0.05 ↑
C8_14	Gibraltar/Hamburg transatlantic round voyage	180,000mt	22179 \$/day	-535 ↓
C9_14	Continent/Mediterranean trip China-Japan	180,000mt	44688 \$/day	563 ↑
C10_14	China-Japan transpacific round voyage	180,000mt	16891 \$/day	-904 ↓
C14	China-Brazil round voyage	180,000mt	18870 \$/day	-55 ↓
C16	Revised backhaul	180,000mt	-1767 \$/day	-378 ↓
C17	Saldanha Bay to Qingdao	170,000mt	17.317 \$/ton	-0.072 ↓

Capesize Timecharter Average (C5TC) **19,850 -351 ↓**

Baltic Capesize vessel for Timecharter routes is a non scrubber fitted vessel based on the following description:

180,000mt dwt on 18.2m SSW draft
 Max age 10 yrs
 LOA 290m, beam 45m, TPC 121
 198,000cbm grain
 14 knots laden / 15 knots ballast on 62mt fuel oil (380cst), no diesel at sea
 12 knots laden / 13 knots ballast on 43mt fuel oil (380cst), no diesel at sea
 Timecharter Weightings : C8_14 - 25%, C9_14 - 12.5%, C10_14 - 25%, C14 - 25%, C16 - 12.5%

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions.
 Names of the panellists are available from the Baltic Exchange website.
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Baltic Panamax Index

15/Feb/2024
13:00
London

Baltic Panamax Index

1,623 41 ↑

Route	Description	Size	Value	Change
P1A_82	Skaw-Gib transatlantic round voyage	82,500mt	14630 \$/day	165 ↑
P2A_82	Skaw-Gib trip HK-S Korea incl Taiwan	82,500mt	24573 \$/day	250 ↑
P3A_82	HK-S Korea incl Taiwan 1 Pacific round voyage	82,500mt	12497 \$/day	534 ↑
P4_82	HK-S Korea incl Taiwan trip to Skaw-Gib	82,500mt	5550 \$/day	94 ↑
P6_82	Dely Spore round voyage via Atlantic	82,500mt	16044 \$/day	537 ↑

Panamax Timecharter Average (P5TC)

14,607 370 ↑

The following routes do not contribute to the BPI or Weighted Timecharter Average.:

Route	Description	Size	Value	Change
P5_82	South China, one Indonesian round voyage	82,500 mt	12069 \$/day	188 ↑
P7	Mississippi river to Qingdao	66,000mt	58.410 \$/ton	0.41 ↑
P8	Santos to Qingdao	66,000mt	43.893 \$/ton	0.857 ↑

Baltic Panamax vessel for Timecharter routes is a non-scrubber fitted vessel based on the following description:

82,500mt dwt on 14.43m SSW draft
 Max age 12 yrs
 LOA 229m, beam 32.25m, TPC 70.5
 97,000 cbm grain
 13.5 knots laden on 33mt fuel oil (380cs t) / 14 knots ballast on 31mt fuel oil (380cs t) + 0.1 MGO at sea
 11.5 knots laden on 22mt fuel oil (380cs t) / 12.5 knots ballast on 23mt fuel oil (380cs t) + 0.1 MGO at sea
 Timecharter Weightings : P1A_82 – 25%, P2A_82 – 10%, P3A_82 - 25%, P4_82 – 10%, P6_82 – 30%

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions.

Names of the panellists are available from the Baltic Exchange website.

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Baltic Supramax Index

15/Feb/2024
13:00
London

Baltic Supramax Index

1,058 6 ↑

Route	Description	Size (MT)	Value	Change
S1B_58	Canakkale trip via Med or Bl Sea to China-South Korea	58,328 mt	26163 \$/day	5 ↑
S1C_58	US Gulf trip to China-south Japan	58,328 mt	26575 \$/day	-275 ↓
S2_58	North China one Australian or Pacific round voyage	58,328 mt	8688 \$/day	99 ↑
S3_58	North China trip to West Africa	58,328 mt	6325 \$/day	92 ↑
S4A_58	US Gulf trip to Skaw-Passero	58,328 mt	18607 \$/day	-143 ↓
S4B_58	Skaw-Passero trip to US Gulf	58,328 mt	11761 \$/day	-10 ↓
S5_58	West Africa trip via east coast South America to north China	58,328 mt	19961 \$/day	-10 ↓
S8_58	South China trip via Indonesia to east coast India	58,328 mt	7300 \$/day	236 ↑
S9_58	West Africa trip via east coast South America to Skaw-Passero	58,328 mt	12043 \$/day	-78 ↓
S10_58	South China trip via Indonesia to south China	58,328 mt	7488 \$/day	307 ↑

Supramax Timecharter Average (S10TC)

11,640 68 ↑

Baltic Supramax vessel for Timecharter routes is based on a non-scrubber fitted standard "Tess58 " type vessel of the following description:

58,328mt dwt on 12.80 m ssw

Max age 15 yrs

LOA 189.99m, beam 32.26m, TPC 57.5

72,360 cbm grain / 70,557 cbm bale

5 holds/hatches

4 x 30t Cr + 12 cbm grabs

14 knots laden on 33mt fuel oil (380cst) / 14 knots ballast on 32mt fuel oil (380cst), no diesel at sea

12 knots laden on 24mt fuel oil (380cst) / 12.5 knots ballast on 23mt fuel oil (380cst), no diesel at sea

Timecharter Weightings :

S1B_58 - 5%, S1C_58 - 5%, S2_58 - 20%, S3_58 - 15%, S4A_58 - 7.5%, S4B_58 - 10%, S5_58 - 5%, S8_58 -

15%, S9_58 - 7.5%, S10_58 - 10%

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions.

Names of the panellists are available from the Baltic Exchange website.

Get direct access to this and much more by clicking here

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Baltic Handysize Index 15/Feb/2024 13:00 London

Baltic Handysize Index 567 1 ↑

Route	Description	Size (MT)	Value	Change
HS1_38	Skaw-Passero trip to Rio de Janeiro-Recalada	38,200 mt	9914 \$/day	14 ↑
HS2_38	Skaw-Passero trip to Boston-Galveston	38,200 mt	11271 \$/day	42 ↑
HS3_38	Rio de Janeiro-Recalada trip to Skaw-Passero	38,200 mt	14417 \$/day	-27 ↓
HS4_38	US Gulf trip via US Gulf or north coast South America to Skaw-Passero	38,200 mt	11800 \$/day	-179 ↓
HS5_38	South East Asia trip to Singapore-Japan	38,200 mt	8881 \$/day	75 ↑
HS6_38	North China-South Korea-Japan trip to North China-South Korea-Japan	38,200 mt	8631 \$/day	75 ↑
HS7_38	North China-South Korea-Japan trip to south east Asia	38,200 mt	7856 \$/day	50 ↑

Handysize Timecharter Average (HS7TC) 10,213 16 ↑

Baltic Handysize 38 vessel for Timecharter routes is a non-scrubber fitted vessel based on the following description:

Singledeck self trimming geared bulk carrier
 38,200mt dwt on 10.538m SSW
 Max Age 15 Years
 LOA 180m / Beam 29.8m / TPC 49
 47,125 cbm grain / 45,300 cbm bale
 5 holds / 5 hatches
 4 x 30 ton cranes

Speed & consumptions including main engine & auxibrary engines:
 14 knots on 26mt IFO (380 CST) laden/24mt IFO (380 CST) ballast + 0.1 MDO at sea
 12 knots on 18mt IFO (380 CST) laden/17mt IFO (380 CST) ballast + 0.1 MDO at sea

Timecharter Weightings: HS1_38, 12.5%, HS2_38, 12.5%, HS3_38, 12.5%, HS4_38, 12.5%, HS5_38, 20%, HS6_38, 20%, HS7_38, 10%

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions.
 Names of the panellists are available from the Baltic Exchange website.
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Fixture Report

15/Feb/2024

BDI 1581 -1 ↓	BCI 2394 -42 ↓	BPI 1623 41 ↑	BSI 1058 6 ↑	BHSI 567 1 ↑	BCTI 1147 -7 ↓	BDTI 1336 32 ↑
DOPEX	5204	TOPEX	7025	GOPEX	9379	

TIMECHARTER

'Meteor' 2010 82589 dwt dely retro Haldia 8 Feb trip via EC South America opt NC South America opt US Gulf redel Singapore-Japan \$16,500 - Mizzen

'Flag Zannis' 2014 79164 dwt dely Zhoushan 16 Feb trip via NoPac redel Philippines \$10,750 - Olam

'Saltwind Explorer' 2011 55648 dwt dely Mina Saqr 20/25 Feb trip redel Bangladesh intention limestone \$21,000 - XO Shipping

PERIOD

'BTG Ulriken' 2020 82456 dwt dely Singapore-Japan 1 Apr 12 months redel worldwide \$18,500 - Louis Dreyfus

'Ever Zenith' 2021 81987 dwt dely North China 29 Feb 7/9 months redel worldwide \$18,500 - TMM

'Greenwich Pioneer' 2020 63674 dwt dely China prompt 12 months redel worldwide \$16,500 - Ashley Shipping

VOYAGES

COAL

'TBN' 140,000/10 Norfolk plus Newport/Dhamra 20/29 Mar \$44.70 fio 40000shinc plus 40000shinc/40000shinc - Sail - <14/2 fixture>

'TBN' 160000/10 Drummond/ARA 3/12 Mar \$13.00 fio 50000shinc/25000shinc - Mercuria - <14/2 fixture>

'TBN' 75000/10 Newport News/Visakhapatnam 21/30 Mar \$45.00 fio 40000sshex/20000sshex - SAIL

ORE

'TBN' 170000/10 TRMT/Qingdao 23/25 Feb \$6.80 fio 90000shinc/30000shinc - Vale - <14/2 fixture>

'Ubuntu Sincerity' 2024 170000/10 Tubarao option West Africa/Qingdao 1/10 Mar \$24.00 fio 3 days shinc/30000shinc - Oldendorff - <14/2 fixture>

Baltic Exchange Information Services Ltd would like to thank its panellists for their contributions. Names of the panellists are available from the Baltic Exchange website. Get direct access to this and much more by clicking here © Baltic Exchange Information Services Ltd 2024

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All Worldscale and TCE rates include any costs where burning Low Sulphur fuel is mandated e.g. in an Emission Control Area (ECA).

All TCE values are calculated nett of commission. TD21 does not contribute to the calculation of the BDTI.

Baltic Exchange Dirty Tanker Index (BDTI) Date: December 22, 2023
1427 (+4)

Route	Description	Size (MT)	Value (WS)	Change	TCE (\$/day)	Change
TD1	Middle East Gulf to US Gulf <i>Full Route Description - TD1</i> 280,000mt. Middle East Gulf to US Gulf (Ras Tanura to Louisiana Offshore Oil Port (LOOP)). Laydays/cancelling 20/30 days from index date. Age max 15 yrs. 2.5% total commission.	280,000	34.4	+0.4	7,699	+773
TD2	Middle East Gulf to Singapore <i>Full Route Description - TD2</i> 270,000mt. Middle East Gulf to Singapore (Ras Tanura to Singapore). Laydays/cancelling 20/30 days from index date. Age max 15 yrs. 2.5% total commission.	270,000	53.3	+0.2		
TD3C	Middle East Gulf to China <i>Full Route Description - TD3C</i> 270,000mt Middle East Gulf to China (Ras Tanura to Ningbo) 15/30 days from index date, max age 15 years, 3.75% total commission.	270,000	54.3	+0	31,790	+179
TD6	Black Sea to Mediterranean <i>Full Route Description - TD6</i> 135,000mt. Black Sea to Mediterranean (Novorossiysk to Augusta). Laydays/cancelling 10/15 days from index date. Age max 15 yrs. 2.5% total commission.	135,000	130.7	+0.3	58,959	+491
TD7	North Sea to Continent, <i>Full Route Description - TD7</i> 80,000mt. North Sea to Continent (Hound Point to Wilhelmshaven). Laydays/cancelling 7/14 days from index date. Age max 15 yrs. 2.5% total commission.	80,000	185.4	+0.4	80,847	+692
TD8	Kuwait to Singapore (Crude/DPP heat 135F) <i>Full Route Description - TD8</i> 80,000mt crude and/or DPP, heat of 135F. Kuwait to Singapore (Mena al Ahmadi to Singapore). Laydays/cancelling 20/25 days from index date. Double hull, age max 15 yrs. 2.5% total commission.	80,000	190.1	+1.6	48,432	+801
TD9	Caribbean to US Gulf <i>Full Route Description - TD9</i> 70,000mt. Caribbean to US Gulf (Puerto La Cruz to Corpus Christi). Laydays/cancelling 7/14 days from index date. Age max 15 yrs. Assessment basis Oil Pollution Act premium paid. 2.5% total commission.	70,000	133.1	+1.3	25,987	+789
TD14	South East Asia to east coast Australia <i>Full Route Description - TD14</i> 80,000mt. South East Asia to east coast Australia (Seria to Sydney). Laydays/cancelling 21/25 days from index date. Double hull, age max 15 yrs. 2.5% total commission.	80,000	157.4	+0	40,135	+95
TD15	West Africa to China <i>Full Route Description - TD15</i> 260,000mt. West Africa to China (Serpentina FPSO and Bonny Offshore Terminal to Ningbo). Laydays/cancelling 20/30 days from index date. Double hull, age max 15 yrs. 2.5% total commission.	260,000	55.9	+0		

TD18	Baltic to UK-Continent <i>Full Route Description - TD18</i> 30,000mt fuel oil. Baltic to UK-Cont (Tallinn to Amsterdam). Laydays/cancelling 10/15 days from index date. Double hull, age max 15 yrs. 2.5% total commission.	30,000	316.5	-1.5		
TD19	Cross Mediterranean <i>Full Route Description - TD19</i> 80,000mt. Cross Mediterranean (Ceyhan to Lavera). Laydays/cancelling 10/15 days from index date. Age max 15 yrs. 2.5% total commission.	80,000	186.8	+0.4	62,329	+490
TD20	West Africa to UK-Continent <i>Full Route Description - TD20</i> 130,000 mt West Africa to UK-Continent (offshore terminal Bonny to Rotterdam). Laydays/cancelling 15-25 days from index date . Age max 15 years . 2.5% total commission.	130,000	106.6	+0.2	42,579	+453
TD21	Caribbean to US Gulf (50,000mt fuel oil) <i>Full Route Description - TD21</i> 50,000 mt fuel oil Caribbean to US Gulf (Mamonal to Houston) laydays/cancelling 7/14 days from index date . Age max 15 years . 2.5% total commission . [This route does not contribute to the BDTI]	50,000	207.0	-2.0		
TD23	Suezmax 140,000 tonnes light AG/Med (Basrah to Lavera), loading 20-30 days from Index date, 2.5% total comm.	140,000	87.1	-2.1		
TD25	Aframax 70,000 tonnes USG/Med (Corpus Christi to Trieste), loading 10-20 days from Index date. 2.5% total comm.	70,000	161.6	+1.6		
VLCC-TCE	VLCC TCE (Uses: TD1 & TD3C) <i>Full Route Description - VLCC-TCE: VLCC</i> Timecharter Equivalent. Contributing routes: TD1 (280,000mt ME Gulf to US Gulf) & TD3C (270,000mt ME Gulf to Japan). The Baltic Exchange VLCC-TCE is based on the following description: 300,000 mt dwt, double hull. 155,000 scnt. 160,000 grt 12.5 knots on 53 ballast mt IFO 380cst / 13.0 knots on 70 mt laden. In port: 2 days loading 20 mt per day. 2 days discharging 110 mt per day. 1.5 days waiting/anchor 10mt per day.	300,000			19,745	+476
Suezmax-TCE	Suezmax TCE (Uses: TD6 & TD20) <i>Full Route Description - Suezmax-TCE</i> Suezmax Timecharter Equivalent. Contributing routes: TD6 (135,000mt Black Sea / Med) & TD20 (130,000mt West Africa to Continent). The Baltic Exchange Suezmax-TCE is based on the following description: 160,000 mt dwt, double hull. 82,000 grt 12.5 knots on 44 ballast mt IFO 380 cst / 13.0 knots on 53 mt laden. In port: 2 days loading 12 mt per day. 2 days discharging 68 mt per day. 1 days waiting/anchor 10mt per day.	160,000			50,769	+472

Aframax-TCE	<p>Aframax TCE (Uses: TD7, TD8, TD9, TD14,TD17 & TD19) <i>Full Route Description - Aframax-TCE</i> Aframax Timecharter Equivalent. Contributing routes: TD7 (80,000mt North Sea to Cont), TD8 (80000mt Kuwait-Singapore (Crude/DPP Heat 135F)), TD9 (70,000mt Caribs to US Gulf), TD11 (80,000mt Cross Med), TD14 (80,000mt SE Asia to EC Australia), TD17 (100,000mt Baltic to UK-Cont) & TD19 (80,000mt Ceyhan to Lavera). The Baltic Exchange Aframax-TCE is based on the following description: 105,000 mt dwt, double hull. 57,300 grt 12.5 knots on 36 ballast mt IFO 380 cst / 13 knots on 43 mt laden. In port: 2 days loading 10 mt per day. 2 days discharging 55.0 mt per day. 0.5 days waiting/anchor 5mt per day.</p>	105,000			51,546	+573
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All Worldscale and TCE rates include any costs where burning Low Sulphur fuel is mandated e.g. in an Emission Control Area (ECA). All TCE values are calculated nett of commission. TC8, TC14 & TC15 do not contribute to the calculation of the BCTI.

Baltic Exchange Clean Tanker Index (BCTI)						Date: January 11, 2023
						939 (-80)
Route	Description	Size (MT)	Value (WS or \$/t or \$)	Change	TCE (\$/day)	Change
TC1	Middle East Gulf to Japan (CPP, UNL, naphtha condensate) <i>Full Route Description - TC1</i> 75,000 mt CPP/naphtha condensate. Middle East Gulf to Japan (Ras Tanura to Yokohama). Laydays/cancelling 30/35 days from index date. Age max 12 yrs. 3.75% total commission.	75,000	193.1	+1.9	51,159	+859
TC2_37	Continent to US Atlantic coast (CPP, UNL) <i>Full Route Description - TC2_37</i> 37,000 mt CPP/UNL. Continent to US Atlantic coast (Rotterdam to New York). Laydays/cancelling 10/14 days from index date. Age max 15 yrs. 3.75% total commission.	37,000	180.0	-0.5	20,593	+76
TC5	Middle East Gulf to Japan (CPP, UNL, naphtha condensate) <i>Full Route Description - TC5</i> 55,000 mt CPP/UNL naphtha condensate. Middle East Gulf to Japan (Ras Tanura to Yokohama). Laydays cancelling 30/35 days from index date. Age max 15 yrs. 3.75% total commission.	55,000	199.4	+0.6	38,009	+251
TC6	Algeria to European Mediterranean (CPP, UNL) <i>Full Route Description - TC6</i> 30,000 mt CPP/UNL. Algeria to European Mediterranean (Skikda to Laveria). Laydays cancelling 7/14 days from index date. Age max 15 yrs. 3.75% total commission.	30,000	258.6	-3.6		
TC7	30,000 mt CPP Singapore to Sydney 17/23 days from Index date Double hull, max 15yrs age 3.75% total commission	30,000	211.8	+7.2		
TC8	Middle East Gulf to UK-Cont. (CPP, UNL) <i>Full Route Description - TC8</i> 65,000 mt CPP/UNL middle distillate. Middle East Gulf to UK-Continent (Jubail to Rotterdam). Laydays/cancelling 20/30 days from index date. Double hull, age max 15 yrs. This route to be reported as US\$ per mt. 3.75% total commission.[This route does not contribute to the BCTI]	65,000	70.1	-0.3		

TC9	Baltic to UK-Cont. (CPP, UNL, ULSD) <i>Full Route Description - TC9</i> 30,000 mt CPP/UNL/ULSD middle distillate. Baltic to UK-Cont (Primorsk to Le Havre). Laydays/cancelling 5/10 days from index date. Double hull, age max 15 yrs. 3.75% total commission.	30,000	--	--	--	--
TC10	40,000 mt CPP/UNL South Korea to NOPAC West Coast, S. Korea to Vancouver BC – Rosarito range with laydays/cancelling 14-21 days in advance Maximum age 15 years, double hull, oil major approved This route to be reported as US\$ per mt. This route is reported by BITR-Asia panellists	40,000	50.6	-0.8		
TC11	40,000 mt CPP South Korea to Singapore, Laydays/cancelling 10-17 days in advance. Maximum age 15 years, double hull, oil major approved This route to be reported as US\$ per mt. This route is reported by BITR-Asia panellists.	40,000	16.8	-0.6	13,681	-1,007
TC12	35,000 mt, Naptha West Coast India to Japan. Sikka (Jamnagar) to Chiba with laydays/cancelling 7/14 days in advance. Maximum age 15 years, double hull, oil major approved.	35,000	200.0	-0.6	21,648	-58
TC14	US Gulf to Continent (CPP, UNL, diesel) <i>Full Route Description - TC14</i> 38,000mt CPP/UNL/diesel. US Gulf to Continent (Houston to Amsterdam). Laydays/cancelling 6/12 days from index date. Age max 15 yrs. 2.5% total commission. [This route does not contribute to the BCTI]	38,000	206.8	+5.4	27,942	+1,345
TC15	Med / Far East (naphtha) <i>Full Route Description - TC15</i> 80,000mt naphtha. Skikda to Chiba, Laydays/cancelling 15/25 days from index date. Age max 15 years, 2.5% total commission. This will be assessed and published on a US\$ lumpsum basis. [This route does not contribute to the BCTI]	80,000	\$4,508,000	+\$0		
TC16	Amsterdam to offshore Lome (CPP) <i>Full Route Description - TC16</i> 60,000mt CPP. Amsterdam to offshore Lome, Laydays/cancelling 10/14 days from index date. Age max 15 years, 2.5% total commission. This will be assessed and published basis Worldscale.	60,000	197.8	-1.6		

Baltic Exchange Liquid Petroleum Gas Index, BLPG

Gas

Baltic Exchange gas assessments are made on a time charter basis for LNG and a dollar per tonne voyage basis for LPG

LNG +

LPG -

BLPG Code	Short Description
BLPG1	Middle East Gulf to Japan
BLPG2	US Gulf to Continent
BLPG3	US Gulf to Japan
Baltic LPG Index (BLPG): Average (BLPG1 TCE, BLPG2 TCE, BLPG3 TCE)*0.1	

Baltic Exchange Liquid Natural Gas Index

Gas

Baltic Exchange gas assessments are made on a time charter basis for LNG and a dollar per tonne voyage basis for LPG

LNG -

BLNG Code	Short Description
BLNG1	Gladstone / Tokyo RV
BLNG2	Sabine / UK Cont RV
BLNG3	Sabine / Tokyo RV

Baltic Sale & Purchase Assessment (weekly)

Dated on February 9, 2024

BSPA		
Vessel Type	Description	Price (\$M)
WET		
VLCC	5 years old - 305,000 dwt	\$104.795
Suezmax	5 years old - 158,000 dwt	\$79.933
Aframax	5 years old - 115,000 dwt	\$69.603
MR	5 years old - 51,000 dwt	\$44.923
DRY		
Capesize	5 years old - 180,000 dwt	\$52.105
Panamax	5 years old - 82,500 dwt	\$32.790
Supramax	5 years old - 58,328 dwt	\$26.224
Handysize	5 years old - 38,200 dwt	\$25.443

Baltic Ship Recycling Assessment (weekly)

Dated on :



BSRA

	Delivery Bangladesh (US\$/LDT)	Delivery India (US\$/LDT)
Tankers (LDT)		
30001 & above	514.333	501.083
15001 - 30000	531.667	509.167
7000 - 15000	538.667	517.000
Bulkers (LDT)		
20001 & above	512.500	497.500
9001 - 20000	522.083	502.500
5000 - 9000	529.167	506.250

VIII. 成本計算（上課講解時，請攜帶計算機）

1. 裝(卸)貨時間計算：單港的計算範例。

一、C/P 條件：

- (一) 每 W.W.D.S.H.EX 之裝船速率 10,000 公噸，星期六、日及例假日至次一工作日上午 08:00 止之時間，均不記入裝貨時間。

Clause 67

Laytime at Load Port

Vessel to be loaded and spout trimmed at average rate of 10,000 metric ton per weather working day of 24 consecutive hours Saturday and holidays excluded, and time until 0800 hours on Mondays and days after holidays not to count, even if used.

.....

At loading and discharging port laytime shall commence to count at 0800 hours on the next working day after Notice of Readiness is validly tendered.

- (二) 船長或船東代理人依合約規定之時間與方式送達有效的書面準備完成通知後，裝貨時間自次一工作日之 **08:00** 起算。該項通知應於船舶已完成裝貨準備（不論是否靠泊於裝貨碼頭）、並完成報關後，附上船舶各部位已通過美國商品檢驗局及美國農業部檢驗員檢驗為乾淨且準備妥當、適於裝貨的證明(如在加拿大或其他港口則是當地相等的機構檢驗員檢驗的證明)，於每日（星期六下午、日及例假日除外）上午 **08:00** 至下午 **16:00** 及星期六上午 **08:00** 至中午 **12:00** 之時間內送交傭船人或其代表人。。

Clause 7

Notice of readiness/Commencement of Laytime

Notification of the Vessel's readiness to load must be hand-delivered at the office of the Charterers or their representatives between 0800 and 1600 Mondays through Fridays, up to noon on Saturdays (Saturdays afternoon, Sundays and local holidays excluded), Vessel also having been entered at the Customs House, accompanied by pass of the National Cargo Bureau and USDA Inspector or equivalent authority in Canadian or other ports attesting to the fact that the vessel is clean and ready in every respect to load in all compartments. Vessel is not allowed to tender the Notice of Readiness (NOR) until above conditions are satisfied and any NOR given earlier will be null and void. After valid tender of the NOR, laytime will then commence at 0800 on the next business day whether in berth or not.

- (三) 延滯費(延滯罰款)每日 **10,000** 美元，快速費(快速獎金)依照全部節省之裝貨時間每日 **5,000** 每元。

Clause 36

Demurrage

(a) Charterers to pay demurrage, if incurred at loading port, at the rate of U.S.\$ 10,000 (US DOLLARS Twenty Thousand) per day for each and every day or pro-rata for part of a day, for all time used in loading in excess of allowed laytime.

.....

Clause 37

Despatch

(a) Charterers to collect despatch, if earned at loading port, at the rate of U.S.\$ 5,000 (US DOLLARS Ten thousand) per day for each day or pro-rata, for laytime saved in loading.

.....

二、發生事實經過：

- (A) MV “DRAGON MASTER”於 2024 年 3 月 4 日（星期一）下午 15:00 抵達巴西 SANTOS，16:00 完成裝貨準備同時發出準備完成通知，且為傭船人接受。
- (B) 該輪於 3 月 11 日（星期一）上午 08:00 靠泊於裝貨碼頭，開始裝貨。
- (C) 3 月 9、10、16 及 17 日為星期六、日，均不進行裝貨工作。
- (D) 裝貨工作自 3 月 18 日上午 08:00 恢復進行。
- (E) 3 月 21 日上午 08:00 完成裝貨，船上共裝 61,000 公噸散裝玉米，啟航返台。
- (F) 下雨時段：
 - 3 月 9 日 09:30~11:30；
 - 3 月 12 日 13:40~15:10；
 - 3 月 19 日 11:50~13:50 .
 下雨時段，裝貨工作中斷。
- (G) 3 月 1 日至 3 月 31 日期間除星期六、日、3 月 29 日為 Good Friday 與 3 月 31 日為 Easter Sunday 放假外，在巴西 SANTOS 地區並未有特殊假日。

2. Voyage estimate — 如**作業一**說明。

3. T/C base — 如**作業一**說明。

等同論時傭船之每日平均租金 Time Charter Equivalent, TCE

不定期航運業以論程傭船營運時，用以計算船舶平均每日收入績效的標準。其計算方法乃是將該論程傭船的航次收入減去該航次之變動費用，然後再除以往返航程的總天數， $TCE = (\text{Freight Revenues} - \text{Voyage Expenses}) / \text{consumed days of the voyage}$ 即（某一論程傭船所獲得的總運費 - 燃油費用 - 港口及其他費用）/ 該論程傭船往返航程所耗的實際總天數。

此一數據乃是用以反映國際海運運費價格水準的一個參數；

也用於參考確定該一論程傭船的單日 Demurrage/Despatch 費率；

可以理解成船東在船舶以論程租船的營運情況下，所賺取的等同論時傭船營運時之每日平均租金；

此一數據亦可提供船東用於比較不同時期或不同運務的船舶每日收益。

但是此一數據只供經營者參考，因該數據並未被標準的會計準則所接受，在上市航運公司的財務報表上通常只能列為附註。

4. 裝貨量的計算 — 按以下案例說明(上課講解時，請攜帶計算機)

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2. DESCRIPTION OF CARGO

— CGO/QTTY : 75,000MT 10PCT MOLOO BULK STEAM COAL

3. DESCRIPTION OF THE VESSEL

— VESSEL : MV 'FAR EASTERN CAVALIER'

PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS

82,096.9MT DWT ON 14.45M SSW

GT/NT 44,543/26,987

LOA 229/BM 32.26 M

7 HO/HA, 3,489,046 CUFT GRAIN

ALL ABT

— VESSEL : MV 'FAR EASTERN CAVALIER' OR HER SUBSTITTUTE

PANAMANIAN FLAG, BUILT JANUARY 2023, CLASS ABS

82,096.9MT DWT ON 14.45M SSW

GT/NT 44,543/26,987

LOA 229/BM 32.26 M

7 HO/HA, 3,489,046 CUFT GRAIN

ALL ABT

.....

5. LOADING PORTS

- LOADING PORT : 1/2 SB 1 SP NEWCASTLE, AUSTRALIA

6. DISCHARGING PORTS

- DISCHG PORT : 1/2 SB 1 SP KAOHSIUNG, TAIWAN

7. LOADING AND DISCHARGING RATE

- L/D RATE : 25,000MT/25,000MT WWDSHEX EIU BENDS

IX. 經營損益與風險管理(上課講解時，請攜帶計算機)

1. 船舶的取得方式

(1) Outright purchase 直接買船

傳統上取得船舶的方式就是直接購買船舶。公司可以使用其自有資金來購買船舶，或是可能將船舶抵押以獲得貸款。在融資匱乏的時代，如 2011~2014 年這幾年裡，手中握有大量現金的船東得處於以優惠條件獲取船舶的最佳時機。例如自 2010 年到現在的這段時間，由於很多船東原先有對造船廠下訂單，但是後來卻遇到市場下跌，無法完成按時繳交造船款，因而違反造船合約。造船廠於是沒收訂造船東原已繳交的部份船款後，將船舶出售給這類手中握有大量現金的船東，此時可能幾乎是以先前簽約價格的一半金額，就可自造船廠購買到新船。

大的船公司可能會聘請自己的造船工程師和設計人員，設計出公司未來想要的類型與大小的新船，或是可能將此一任務委託給獨立的造船工程師。更常見的是，公司可能會購買船廠設計的現成船型，其設計恰好適合該公司的需要。

另外有些公司則可能會致力於透過購買二手船舶來建立自己的船隊，而為了此一目的，他們將需使用仲介買賣現成船的經紀商(Sales & Purchase Brokers, S&P Brokers)提供的服務。

(2) Finance based long term chartered 以融資為基礎的長期租船

越來越多航運公司會透過一些租賃機構(leasing companies, lessor 出租人)代其購船，以便取得新船用於營運。這可能是因為該航運公司的借貸能力不足以購齊公司營運所需的船舶，而中間的租賃機構卻有更多的資源，比該航運公司更能夠從採購船舶上獲得稅務的優惠。在這種租賃安排之下，航運公司仍可能深入參與船舶的設計，建造出來的船舶以空船租賃的方式出租予該航運公司，而這艘船可能終生都供該航運公司使用，有時該航運公司還會對船舶擁有購買選擇權，可在一段特定的時間後，支付象徵性費用購得船舶。

一項以稅務措施為誘因的典型例子就是德國的 KG (Kommanditgesellschaft, the German name for a limited partnership business entity, 有限責任合夥制的企業體)基金方案，在德國的 KG 方案下，擁有或投資船舶的個人或公司可以獲得優惠的稅務待遇，此一優惠稅務待遇中的部份優惠利益就可以轉變成有競爭性的租船費率，轉嫁給承租船舶經營的航運公司，讓該公司得以用較低廉的價格租到所須使用的船舶。在這樣租賃安排下，船舶乃採用光船租賃的方式出租給經營的航運公司，承租的公司負責船員僱用，船舶維修等，或可採用論時的方式出租，在以論時方式出租的情況下，船舶實際的擁有者(出租人)就必須履行上述船員僱用，船舶維修等這些功能。

然而自 2009 年起，KG 模式的普及程度便持續嚴重的下滑，因為隨定期航運的運費與論時租船的租金從 2008 年的歷史高點大幅地下跌，加上不斷飆升的燃油成本在同一時期達到歷史的新高，以 KG 模式出租貨櫃船給定期貨櫃航

運公司的營業收入也隨之崩盤。除了收不到他們的投資收入，KG 基金的投資者現在經常被要求提供額外的資金來保持船舶能在損益兩平的情形，甚或在損益兩平以下的水準來營運，同樣的情形也發生在 KG 基金旗下出租的散裝船隊。

(3) Time charters 論時租船

航運公司亦可以使用論時租船的方式從其他船東公司租用船舶來營運。論時租船還可以讓航運公司用於獲取船舶以滿足短期的運輸任務，或補足短期內船隊數量的短缺，也許是用於取代屆臨進塢檢修期限的船舶或滿足季節性的高水準需求。論時租船合約鎖定了租船人在承租期內必須每日支付一筆固定金額的租金給船東，做為船東出租船舶的收入，這一每日租金在租船合約訂立時可能對租船人是有利可圖的，但如果租入船舶後碰上市場的整體運費水準普遍下跌，租船人就可能會面臨虧損經營了。

2. 經營損益：

	收入				
	費用	→	固定成本	
				折舊費用	
				
				
-		→	變動成本	
	稅前盈餘				
-	所得稅				
	稅後盈餘				
+	折舊費用				
-	還本				
	<u>現金流入</u>				

- ☞ 用以彌補自備款的支出
- ☞ recovery of Equity on the vessel

- (1) 收入的鎖定或提昇；
but how? → FFA 的避險
- (2) 各項費用與成本的降低；
- (3) 由 (1) 與 (2) 提昇盈餘；
- (4) 年度預算與年度決算。

3. 空船租賃出租時的經營損益：

4. 全年論時出租的經營損益：
5. 全年有論時出租及論程傭船出租的經營損益：
6. 全年論程傭船出租的經營損益：
7. Operator 的經營成本與損益：
8. Disponent Owners 的經營成本與損益：

以上 2~8 項，需配合**作業一**的數字，請務必跟上進度注意課堂上舉例的計算過程！

9. 風險管理

(1) 不定期航運經營風險

- A. Freight Rate (Hire) Risk 運費率（租金）漲跌風險
- B. Ship value risk 船價漲跌風險
- C. Interest rate risk 利率漲跌風險
- D. Bunker price risk 油價漲跌風險
- E. Foreign exchange rate risk 匯率變動風險
- F. Credit risk 信用(額度)風險

(2) 避險

- A. 運費率（含租金）風險管理工具
 - ① Forward freight agreements, FFAs, 遠期運費協議
 - ② Freight Futures 運費期貨
 - ③ Hybrid FFAs 混合式 FFAs
 - ④ Freight Options 運費選擇權
- B. 其他風險避險工具
 - ① 船價避險：SPFAs (Sale and Purchase Forward Agreements)
 - ② 利率衍生性商品：各金融交易所、各商銀利率衍生性商品櫃台
 - a. 遠期利率協定 (Forward Rate Agreement, FRA)
 - b. 利率期貨 (Interest Rate Futures)
 - c. 利率交換 (Interest Rate Swap, IRS)

d. 利率選擇權 (Interest Rate Option, IRO)

③ 滙率衍生性商品：各外滙交易所、各商銀外滙櫃台

a. 遠期外滙契約 (Forward Exchange Contract)

b. 外滙期貨 (Foreign Exchange Futures)

c. 外滙交換 (Foreign Exchange Swap)

d. 外滙選擇權 (Forward Exchange Option)

④ 燃油衍生性商品 Bunker Fuel Oil Derivatives：SINGAPORE EXCHANGE (SGX)

Tips： 避險乃是以操作者本身在實體 (physical) 市場所將面臨的風險去做避險，而非投機操作，投機操作則是操作者本身並未面臨實體市場的風險，單純以買進或賣出衍生性商品以獲取利益，此乃投機操作。

X. 聯合經營(Shipping Pools):

http://ec.europa.eu/competition/sectors/transport/reports/tramp_report.pdf

散裝航運的航商之間採取橫向合作的主要形式就是組成航運聯營組織。航運聯營組織沒有通用、單一的模式，目前市場上都有各種不同結構的聯營組織，然而這些不同結構的聯營組織仍具有許多類似的特徵與典型的規章。

在液體散裝貨、乾散裝貨和新散裝貨物這三個貨物運輸市場中，都存在航商之間的航運聯營組織。在 2006 年由 Fearnley Consultants AS (Grev Wedels Plass 9, N-0107 OSLO, Norway) 公司為歐盟競爭委員會所做的不定期海運服務的法律與經濟分析報告中確定了當時存在了 27 個液體散裝貨物航運聯營組織、12 個乾散裝貨物航運聯營組織和 3 個新散裝貨物航運聯營組織。

{新散裝貨物：

<https://www.teralogistics.com/type-of-marine-cargo-neo-bulk/> &

https://transportgeography.org/?page_id=10258，

新散裝貨物是屬於一般單位化雜貨中的第三個類(另兩類的單位化雜貨分別為貨櫃貨物，containerized cargo, 與零星散雜貨，break-bulk cargo)，它近來漸漸成長為主要的貨物類別。新散裝貨物是一些事先包裝好、可以計數的、具有明確的裝載單位，且不合適合儲存於貨櫃中的貨物，例如車輛、重型機械、原木、牲畜、鋼材等。運載新散裝貨物的船舶是為這類特定貨物而設計的，例如重吊桿船(heavy-lift ships)、駛上/駛下的汽車運輸船(roll-on/roll-off car-carrying ships)與原木運輸船(log carriers)。一般而言，它們都可稱為新散裝運輸船。}

一般航運聯營組織的組成有五個共同特徵，分別如下：

(a) 船舶噸位相似 - 所需的船舶通常都是大致相同的型式與大小。

(b) 中央集權式的管理（聯營組織經理人） -

船舶日常的業務由個別船東或船舶營運人委派給聯營組織經理人管理，聯營組織經理人可以採取（單獨登記成立的）公司的形式，也可以是由其中一家會員公司兼任，來執行聯營組織經理人的功能，這樣的聯營組織通常分別稱為經理人控制的聯營組織與會員控制的聯營組織。

(c) 聯合行銷 -

該聯營組織以一個單一法人實體的形式進行業務行為，提供船舶運輸或出租的服務，而不管執行實際運送任務的船舶是屬於哪家會員公司。

(d) 運費率的談判 -

船舶由聯營組織的管理公司或上述由一家兼任管理工作的會員公司集中營運，按照船東加入聯營組織必需同意的聯營組織船舶營運指南為基礎，去訂定船舶出租的條款及條件。有些船舶可能用於現貨市場上營運，而有些船舶則以論時租船合約承做長期出租的合約或執行長期運送契約(CoA)。聯營組織經理人也可以租入船舶，並取得再分租予其他租船人的權利，或者聯營組織經理人也可以以某船東代理人的身

分被授權為該船東的船舶洽訂業務。

(c) 收入和航行成本的集中 –

加入聯營組織的船舶，其出租收入通常由聯營組織收取，然後按照一套複雜的分配辦法將收入分配給會員，以便公平分配每艘船應得的實際收入。聯營組織的費用，通常是指船舶的航次費用，一般由聯營組織支付，並在分配前從聯營組織的收入中扣除。

航運聯營組織的功能

1. 船舶運送人創立聯營組織的主要原因是為了達成更有效的船隊部署及分散風險。有鑒於履行 CoA 所涉及的貨物數量與時間考慮，許多中小型船東或船舶營運人認為，他們可能沒有所需的能力（有形或管理的能力）單獨洽訂此類業務，或者如果他們這樣做的話，所涉及的風險可能高於他們通常可以接受的風險。在許多情況下，與其他擁有類似船舶的船東建立聯營組織就提供了解決的辦法。
2. 在化學品的海運市場，聯營組織能夠接受每船次運送小批量貨載的 CoA，這樣就使得聯營組織的船舶得以把來自不同貨主的貨物存放在船上的不同貨槽裡，以便集合不同貨主的貨物由一艘化學品船來運送。這是化學品海運市場的一個特點。因此組成聯營組織可以使得每個聯營組織成員可以使用聯營組織中其他成員的船舶而獲得額外船噸，以便向各自的客戶提供班次密集的運輸服務。
3. 聯營組織還為中小型船東創造了一種方式，這一方式讓這些船東得以藉此避免為了必須自行建立一足夠經濟規模的營業結構所衍生的成本與負擔，因為聯營組織可以將聯營船隊的營業管理"委派"給聯營組織中的獨立業務經理人或聯營組織中一家具有垂直整合營業管理能力的會員公司。也可以說，取得經濟規模是鼓勵船東或船舶營運人者將船舶集中起來經營的誘因，因為進入聯營組織可能使船東可以裁撤船東的船舶出租業務部門。[海洋政策與管理，23（3）：21-237（1996年）]。除此之外，聯營組織，以其船隊規模，可能與油料供應商就船用燃料的購買等取得較有利的採購協定。

顯然地獨立船東將行銷與其他營業功能（如船舶的定約和履約）委派給聯營組織中的共同經理人，並給予該聯營組織經理人代表船東訂定船舶租約的權利（包括訂定運費及船舶出租的租金率，並選擇客戶）引發了可能違反相關國家的競爭法律的問題。然而還是有值得討論的論點出現，聯營組織的存在（透過減少市場船舶供應者的潛在數量）是否對市場競爭產生任何明顯的限制性影響，或者，儘管市場競爭有明顯的減少，聯營組織是否對市場有產生正面的影響，仍值得商榷。針對此一競爭問題的分析只能根據每個聯營組織所處的市場來探討。

聯合經營(Shipping Pool)組織: 請參考下圖。

