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Market analysis and chartering strategies

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"MARKET ANALYSIS AND CHARTERING STRATEGIES"

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A paper submitted to the World Maritime University as part of the requirements of the course on General Maritime Administration.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the World Maritime University or the International Maritime Organization.

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21-04-85.

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INTRODUCTION.

The shipping business have very accentuated and different characteristics with regards to other economic sectors, they are so accentuated that some authors have even said that this sector does not comply with the general economic laws, nor with the transport economies.

The affirmation is, from my point of view, exaggerated. According to my opinion, the shipping business is governed by the same economic laws than any other economic sector, being the blamed differences which exist between them, more quantitative than qualitative.

The governing laws are the same but, as we may say in mathematical language, the shipping business is a "particular case" within the general law. As an example we may name the enormous inflexibility found in the supply side, which is very different from other economic sectors.
Shipping is an international business and a person dealing with chartering has to work with the conditions prevailing day to day in the international -- freight market.

This is why I have chosen the theme for my project on this area and I have called it "MARKET ANALYSIS AND CHARTERING STRATEGIES", because I have realized the great importance of trying to know what is -- the market behaviour like and what it may be in the near future or even on a long range view, if long time investments or strategies are chosen as a way of operating any shipping business.

This project have been divided into five main -- chapters, trying in chapter one to give a clear definition of the two subjects involved, from a general point of view, with its different parts. In chapter two I try them to get more involved within the first of the subjects referred to in the first chapter, which is "THE FREIGHT MARKET" and to explain more in details the different parts or submarkets which are involved in such subject. This leads me to chapter III in which I try to look in details at the different forms
involved within the second and last subject, referred to in the first chapter dealing with "THE DIFFERENT FORMS OF CHARTERING" dividing them from the economical point of view into voyage, time, bareboat charters and contract of affreightment and — ending this chapter with "The facts of chartering" looked at from the owners and charterers concern.

I then move into chapter four, in which I try to give a better understanding of the factors influencing the levels of freight rates, which may be used as a final introduction into chapter five — which is the real peak of my project, because it is in this chapter in which I really come to the subject of "THE INFLUENCE OF MARKET ANALYSIS ON THE CHARTERING STRATEGIES" where I try to cover four main points which are the state of the market, forecasting, the shipowner's point of view — and the charterer's point of view, leading to the conclusions of this project.
CHAPTER I
I
DEFINITION OF FREIGHT MARKET AND
CHARTERING

A- DEFINITION OF FREIGHT MARKETS.-

The freight market is not a uniform market where
the trend is entirely up and down. It consist rather
of a number of different part markets that are not ne-
cessarily dependent on each other but often can de-
velop very differently. The freight market does not ha-
ve a homogeneous connection with a specific geographi-
cal area but rather with ships that can carry simi-
lar types of cargo.

The current trend or state of the market is de-
termined by the balance between the supply and demand
of shipping services of various kinds. A measure of
the state of the market is the freight level at
which a certain type of vessel can obtain in various
standard trades. The freight markets is, of course, de-
dependent on the state of the world trade market but
is sometimes strongly influenced by circumstances li-
ke war, widespread strikes, bad harvest, icebound wa-
ters, etc...

The surface of contact between the different fre-
ight markets may be more or less extensive. This de-
pends on the type and size of ships, the commodity,
and to a certain extent with the distance of transportation. Each freight market has, however, different interested parties and has thus often separate networks of information and information channels.

a) Overall description of the different kinds of freight markets.

i) By grouping commodities with common transport requirements, a rough distinction can be established — between four submarkets: The dry cargo market, the tanker market, the reefer market and the passenger market. It is important to call the attention on the point — that the submarkets like the: container market, the bulk market, ro-ro market, liner market, feeder market and other special markets have been included within — the dry cargo market.

ii) Although distinct differences exist between the freight submarkets and the types of vessels designed to serve them, a certain amount of flexibility can also be seen: a product carrier can carry crude oil, a chemical carrier can also be utilized as a wine carrier, an ore carrier can transport grain and a liner — ship can become a semi-contenier vessel. In other trades such as a gas, the freight markets may be close be
cause of this commodities highly specialized characteristics. In some cases, flexibility between freight — submarkets can even be observed such as a tanker transporting grain.

Markets flexibility.
iii) Another dimension of the freight market is -
the trade route. When the flow of cargoes between gi-
ven geographical areas is unbalanced, the front hould/
back hould question arises. Knowing that a large num-
ber of ships are competing for a relatively modest vo-
lume of cargo on a given trade route, the exporters/—
shippers may be in a position to bargain over freight_
rates on the back houl.

iv) The size of shipment is also an important fac-
tor. Economies of scale are obtained through the use -
of large ships to reduce transport costs per cargo ---
unit and decisively influence the freight rate level.

In general terms freight quotations are normally_
governed by four factors: Commodity, flexibility, tra-
de routr and size of shipment. This is particularly --
true for the single voyage market, also known as the
"spot" market. Depending on certain special features,-
such as speed and cargo gear, vessels employment in —
this sector of the freight market can also obtain some
premiums on rates.

Freight rates may fluctuate quite substantially -
in the spot market, which is highly sensitive because_ of its marginal character.
The rate structure in various freight markets and for different kinds of charter agreements tends to show almost a parallel development, but to a different degree. In the time charter market, rate fluctuations are normally smaller than in the spot market, and help to level out the peaks and troughs of the relevant transport costs.

Freight conferences and cartels are also an important element in the freight market mechanism. Flag preferences and protectionism influence some sector of the market.

B- DEFINITION OF CHARTERING.-

A charter means that the owner or the disponent owner in one way or another promises to put the vessel or a certain transportation capacity at the disposal of the charterer. The charterer, in his turn, promises to pay the agreed sum.

The use of a ship involves a number of costs. There are capital costs, which always have to be paid. There are costs for the management of the vessel including manning, repairs, maintenance, bunkers, etc... Shipping business is also connected with different risks, which are not the same when the ship is in port or at sea. The costs and risks are always there but they may be divided between the parties in various ways. The judgement of the market development and of the risks involved with regards to the various factors thus influence the choice of the type of charter -
and the level of the rate.

a) Overall description of the different types of chartering.

Another basis for distinguishing different types of charter agreements from each other is the use of the ship - from a capacity point of view. If the charterer has control over the whole vessel this may be called chartering in full. The c/p them spells out that the charterer shall deliver "a full and complete cargo" within the limits of the ship's capacity. If the owner can not find a charterer for the whole vessel, they may divide the space between several charterers who may each use, for example, certain portion of the vessel or a certain cargo hold. This is known as a space charter. Space charter is not the same thing as when several charters together charter a vessel.

From a functional point of view an important distinction is made between voyage charter, time charter and bareboat charter. The charterer and the owner often agree that the ship will carry a certain cargo from point A to point B (or will make several consecutive voyages between these points). The freight to be paid is calculated for the voyage or the voyages to be performed. This charter is known as the voyage charter. The voyage charter covering several con
secutive voyages is a special type of voyage charter.

Frequently, the owner puts the vessel at the disposal of the charterer for a certain period of time, during which period the charterer, within the limits of the agreements, control the commercial operations of the vessel. The freight (hire) is determined per time unit (e.g. per month of 30 days) and is regularly paid in advance. This type of charter is known as time charter.

Bareboat charter (demise charter) means that the vessel is put at the disposal of the charterer for a certain period of time, but here the charterer takes virtually the entire responsibility for the operation of the vessel and all the expenses except the capital expenses.

For several reasons the picture is however often much more complex, since mixed forms have evolved and also since a charter agreement may sometimes have features of a joint venture, when the cooperation and profit/loss sharing idea comes more to the fore than it does in traditional charter forms. Today it is not uncommon for a second-hand purchase of a vessel to be connected with a joint venture, something which may also be the case in connection with newbuildings contracts. Often a sale and purchase is connected with a charter back agreement.

Furthermore, a bareboat charter or a secondhand purchase may often be combined with a management agreement.
CHAPTER II
II

TYPES OF FREIGHT MARKETS

A- THE DRY CARGO MARKET.

with respect to types of trade as well as types of ships the dry cargo market is the most diversified. Some parts of this market may at times show a market picture which is quite different from the dry cargo market in general.

What are common to the various sectors are information centers and information channels. To be able to consider alternative employment for the ships, to judge new building requirements, to develop new types of vessels, to get ideas on new solutions to transportation problems and to seek new trading opportunities, the dry cargo owners must follow what is happening with the dry cargo market as a whole and what happens from day to day in important shipping centers. The charterers, as well, have to follow what is taking place within the whole dry cargo area to be able to obtain optimum solutions to their transportation problems.

The dry cargo market may be divided into the following sectors: Bulkers, tweendeckers, containers,-
ro-ro, liners, feeders, and other special sectors.

a) The bulk and tweendecker markets.

Within the bulk sector one have to follow up carefully the variations in supply of the important bulk cargoes like coal, grain, ores and concentrates, scrap, steel, cement, phosphates and fertilisers.

Owners of specially equipped vessels also have to keep well in touch with the market for the shipment of eg. lumber, woodchips and cars. Modern bulk carriers, with technically sophisticated equipment, can also be used for the transportation of unitized cargoes of various kinds, like paper and pulp and also for containers, etc...

All ships that are able to carry these commodities are competitors within the same market sectors. This means that when making freight calculations one has to calculate on the various chartering alternatives and set the freight at a level with the current market conditions within the particular sector. Ships with special equipment also have to look at their specific part of the market in order to get the additional rate on the freight which is required to pay off investments on equipment.

Even the tweendeckers carry bulk cargoes, but the
number of such vessels in the bulker trades diminishes continuously in favour of genuine bulk carriers. The most important employment possible for tweendeckers are, on the one hand, shipments of all kinds of bagged commodities, e.g. rice, sugar, cement, and fertilizers, and on the other hand, employment as supplementary or extra vessels for the regular lines.

The market variations for bulkers and tweendeckers follow each other to a great extent. Both groups of ships also normally use the same brokers, although the individual shipbroker is often a specialist within either sector.

b) The container market.

In the 1960s a widespread opinion prevailed that containerships of the lo/lo type (lift on / lift off) would totally knock out the conventional liners from the important trades. This did not occur and, instead, there developed pure container trades parallel to conventional liner traffic. Albeit the latter has diminished to some extent.

The container ships has found its place, specially in traffic playing between highly industrialized areas with a technically advanced inland transportation system in both the importing and exporting areas. This traffic_
requires large investments in specially equipped vessels, port installations and terminal equipment. Containership are often operated by joint venture organizations and pools, partly because of the high investment cost involved.

The time charter market for containership has proved to be the market sector which is the first to react in a change in the state of the world trade market. The containerships are subject to competition from modern tweendeckers of standard type as these vessels, to some extent, can carry containers. Competition is also felt from bulk carriers constructed to be suitable for container handling.

The market for containerships is limited and there is only a small number of brokers who are specialized in the chartering of such vessels.

c) The ro-ro market.-

For the ro-ro ships (roll on/roll off) the development has been very special during the past few years. From the beginning, these ships were typical short trade carriers in trades between highly industrialized countries. Several circumstances have, however, caused these vessels to participate as a natural part of ocean traffic.

The movement overseas of industrial products, machi
nery, vehicles and building materials increased consider-
ably, especially, from Europe and the United States
to the Middle East countries, as well as to West Africa
from Europe. The ports in the importing countries had
a low capacity and therefore ran into serious conges-
tions caused by too many vessels arrivals and the unav-
bility to cope with the increasing quantity of cargo.
At the same instance the time had become ripe for the
liner companies trading to these areas with conventio-
nal general cargo ships to renew their fleets.

One solution to these problem is the ocean-going
ro-ro ship, which can carry all types of commodities
placed on wheeled platforms or flats which may be han-
dled by the use of fork-lift trucks. Thus we are tal-
king about a type of vessel which does not require any
port installation other than a stretch or quay with a
length equal to the wide of the ship, where the ramp
can be lowered. Such a vessel may be emptied of cargo
within only a few hours.

Therefore, a complete new market has developed--
with the circulation of orders world-wide, and where
brokers are specialising and concentrating their acti-
vities on ro-ro chartering. When the congestion in the
affected ports eases the ro-ro ships will encounter
competition from the modern tweendeckers and bulker to
nnage. Still, it is obvious that the ro-ro vessels have proved its usefulness and will probably be competitive in new markets.

d) The liner market.

Liner traffic is a firmly controlled activity where remuneration is fixed well in advance. The freight rates are not subject to the same large variations that characterized the so-called open market. Still, the liner traffic is affected by the market variations by way of availability of cargo and load factors on each voyage.

There is an intermittent need for time chartered tonnage, which will be either expensive or cheap depending on the supply of ships and employment. When the market is low the competition from the so-called outsiders often gets stronger, as they may enter a liner trade for a number of trips accepting freight rates that are lower than in the liner tariff rates.

Liner vessels get the larger share of their cargoes through contracted liner agents who mostly do not work as ship brokers in the dry cargo markets. A liner company may also book basic part cargoes and interesting special commodities in order just to fill empty space. This is often done on charter party terms through broker connections in the open market. Inbalance -
in cargo volumes between the outward and homeward legs of a round voyage often makes the lines competitors with the tweendeckers tonnage work in the open market from the same areas.

Liner operators are more than other shipowners engaged in improvements of cargo handling techniques and they often participate actively in developing those ports at which they call regularly.

e) The feeder market.

Also smaller types of ships have a market with an information system and information channels which function rather independent trading with vessels of smaller sizes, but the small single and tweendecker are more and more frequently employed in a more or less strictly scheduled feeder traffic of some kind. For various reasons it is them a question of short sea trade and the ships encounter competition not only from the bigger ships which may carry part cargoes but also from rail and road traffic.

One may find typical feeder companies looking for employment in the open market depending on the casual need. It is, however, also common for ocean liner companies or a forwarding agent or a charterer/shipper who trades with his own products to operate feeder ships as to part of his transport scheme.
f) Special markets.

In addition to the above mentioned types of vessels there are quite a number of special ships which meets various special needs. Among such vessels the following can be mentioned:

i) Heavy lift carriers, some companies have specialized in heavy lift cargoes and technically complicated transports where the movement between quay and ship is the most difficult part of the operation. For such purposes the vessels must be built with the special demands on stability and constructional strenght in mind.

ii) Barges and pantooms, these carriers are also used for the transport of heavy materials, e.g. built-up drilling rigs, but they are also used as floating quays, as feeders in short sea traffic and as discharging platforms between an ocean going ship and the quay.

iii) Tugs, the demand for towing vessels has increased with the increased use of barges and pantooms. At the same time, towing work for the merchant fleet is becoming more frequently demanded.

iv) Barge carriers, in this —
context the system with barge carrying ships must also be mentioned, eg. The LASH System (Lighter Aboard Ship) This method is based in cargo being loaded into barges which are towed up to and and loaded into an ocean-going vessel. At the port of destination the barges are again launched and towed, eg. up a river, to the final place of reception.

B- THE TANKER MARKET.

One characteristic of the tanker market has been the comparatively small number of big charterers: The large oil companies. The number of private firms (often known as "traders") and state organizations engaged in the chartering of tankers has, however, increased considerably after the so-called oil crisis in 1973. The small number of loading areas is also typical of the tanker market.

The tanker, and specially those carrying crude oil, practically never get any return cargoes and are therefore normally forced to proceed in ballast to a loading area.

The problems encountered in tanker chartering are however, even greater than those found in other forms of chartering.
The art is to hit the right time for the fixture at a freight level well in tune with the prevailing market. The daily fluctuations, as well as the periodical changes, normally occur very rapidly and with strong deflections which may cause the situation to change radically from one hour to the next. Due to comparatively limited number of parties involved in the tanker market, every occurrence has a great effect, which sometimes means that one single fixture may affect the total state of the market for the day.

The combination carriers of ore/oil type and ore/bulk/oil (OBO) have a special position, although not in the way they were intended to do originally. The intention was that those ships will perform combined voyages in the trade with eg. dry bulk cargo in one direction and with tanker cargo for the return leg. Instead, the vessels were used either as pure tankers or as pure bulk carriers, depending on which market offered the best revenue at the moment. This development was also created by the difficulty in combining freight contracts and also by such practical problems as cost for cleaning the ship's holds between the different commodities. Thus the combination carrier increase the supply of tonnage on the market where they are being worked for the moment and
can therefore contribute to weaken an upward trend in freight levels or to strengthen a downward trend.

C- THEreefer MARKET.-

Big scale reefers (refrigerated ships) trading is basically a worldwide operation, but this market is nevertheless very much a close one. There are only a few owners, operators and reefers brokers who devote themselves to this freight market. The charterers are often very large organizations, privately owned as well as governmental. In contrast to what is normally the method in dry cargo chartering, a reefer charter is frequently made directly between owners and charterers without the assistance of brokers. Nevertheless there are many connections and similarities between the reefer and the dry cargo markets.

The operation is strongly influenced by large seasonal variations in the supply of cargoes. The reefer market is, however, also characterized by sudden changes and at the same time the contractual engagement require very strict and careful scheduling.

Bananas, fish and meat are transported the year around, while citrus and other fruits, vegetables and potatoes are seasonal. The demand for reefer ton-
nage normally reaches a peak when the products of the Southern Hemisphere are bound for shipment to Europe.

When the freight level of the dry cargo market - is equivalent to that of the reefer market, the reefer ships may be used in the dry cargo market. It is customary for reefers to carry eg. cars, tractors and if the freight levels permits, even bagged cargoes, paper, lightweight unitized cargoes, etc... The vessel will then compete with the tweendeckers operating in the open market. Comparatively large quantities - of reefer cargoes eg. meat are being carried by containerships in reefer containers, but also by combed reefer dry cargo ships in liner service or by conventional general cargo liners.

D- THE PASSENGER MARKET.-

The big passenger ships in transoceanic liner - have now practically vanished. The large size tonnage with accommodation only for passengers is now practically engaged in cruising. Most passenger vessels - are operated in short distance trade with consecutive trips on tight schedules. These ships mostly have a capacity for rolling goods and they are supplement to the ro-ro ships operating in the same trading area.
The market for passenger ships is very much dependent on seasonal variations and the working of those vessels in the open market is often done with the assistance of the brokers specialized in ro-ro chartering.

E- THE SALE AND PURCHASE MARKET,-

An important part of shipping concerns the sale and purchase of ships. The general freight market and the so-called second-hand market for ships have a considerably mutual influence. It is important to follow the day to day level of the second-hand market as well as the state of the freight market for a specific type of vessel.

The owner observes the offer from the shipyards of newbuildings but also the supply of vessels on the second-hand market, as well as the developments of scrap prices for old ships. Such details give useful information about the supply of tonnage for a few years ahead and may have a decisive influence on the long range developments of the freight markets. During a period of low market activity it is specially interesting to observe if the existing tonnage is laid-up, is sold for trading under low-cost flags or is scrapped.
The second-hand market varies largely in connection with the freight market for each specific type of ship. Theoretically, an owner would buy ships during a low market period and sell vessels when the freight market rose. Owners however, tend to do the reverse and there are several reasons for this. Among other things, this has to do with the need during a period of recession to sell in order to strengthen the liquidity position.
CHAPTER III
III

DIFFERENT FORMS OF CHARTERING.

A- VOYAGE CHARTER.-

In this case the shipowner pays for virtually everything except perhaps the loading and discharging costs. Parties have to agree on laytime (cargo handling time).

The charterers pay the freight. This is usually assessed at so much per ton of cargo carried or alternatively as a "lump sum" for the voyage. The charterer also usually has to pay for any delays in the loading or discharging of the ship. This is known as demurrage. On the other hand if he can turn the ship around faster than agreed the shipowner usually shares the financial gain with him. This referred to as despatch. The rate for dispatch is usually half that for demurrage.

When chartering in this way, the owner should take care to obtain the following:

a) Detailed particulars of the commodity to be lifted.

b) Loading and discharging rates at the respective ports, to determine the time required for cargo operations, since this will be included in the overall voyage duration.
c) Restrictions, if any, his vessel will experience at the ports of call due to its gear, size or flag.

d) Seasonal weather conditions along the sea routes where his vessel is to be deployed so that he can estimate steaming time and bunker consumption correctly.

B- TIME CHARTERING.-

A vessel can be let by its owner to another party on a time basis, where the latter contracts to deploy the vessel for a prearranged period of time. This form of hiring occurs under a time charter and its duration may vary from a month up to 20 years, as has been the case for LPG/ING Tanker fixtures.

Under the general terms of a time charter, the charterer, in addition to the hire, pays for the fuel consumed from the time the vessel come under his management until it is delivered to its owner when the contract comes to an end. Similar payments of fresh water for the ship's boilers and catering expenses for the charterers representatives (cargo superintendents) if any, are also made.

Time chartering is considered an ideal method of testing the validity of a service an owner wants to
or plans to establish when he has no suitable tonnage in his fleet or is unable to divert any because of any long term engagements. He can also charter in a vessel to cover its needs, if any, when delays occur in the delivering of newbuildings from a yard. Time chartering is frequently speculative. A ship time chartered during the slump at a low rate may turn out to be a lucrative business if and when the freight market starts to recover, enabling the charterer to move from marginal profits to big earnings. In common with similar speculative business venture, however, things can also work the opposite way and the charterer may get stuck with an expensive time-chartered vessel for months or years ahead.

C- BAREBOAT CHARTERING.

As the word "bareboat" indicates, the owner leases his vessel for an extended period, often 3 or more years, to another party who would not only deploy the ship according to the general terms described in an ordinary timecharter but also be responsible for managing and maintaining the vessel for the contracted period.

The owner is compensated with a hire rate adequate to cover his financial and capital costs (loan installments, interest, expected return on equity_
capital) and insurance premiums, other, than these pertaining to cargo and crew, together with the profits he expect to make if he operates the vessel under his own management for the period of the bareboat charter.

In certain cases, a bareboat charter may be arranged with some strings attached to it. The charterer could wish to formulate the deal to give him an option to purchase the vessel at the end of the hire period (leasing with option to purchase). In such cases, the purchase price to be paid would be fixed in advance. In another alternative, the time charter hire rate may include not only the bareboat charter hire rate but also the agreed sale value of the vessel spread evenly during the hire period (charter lease or purchase by instalment). A further alternative is for the charterer to lease back the ship to its owner. The idea is to help the owner to finance his new building. This arrangement (lease and lease back) should be seen as a purely financial move with a dash of tax avoidance added.

In general terms, bareboat charter agreements may be a helpful alternative for those with the means to employ a ship but who are short of capital or credit. The opportunity to purchase while chartering may be good business and enable them to move -
from the role of charterer to that of shipowner.

In practice, bareboat charter gives the owner no opportunity to decide on or participate in the management and deployment of his ship. On the other hand, it creates a lasting security for his investments, provided of course, that the charterer fulfills his financial obligations towards him.

It is frequently arranged for shipment of large quantities of dry or liquid commodities in bulk, which requires round voyages between prearranged port a given voyage frequency and fairly equal cargo quantities or volumes.

Depending on the amount of cargo involved and the duration of round trips, a COA may last from one to five years, or more. Negotiating such contracts can be a challenging business for both charterer and owner. Various factors governing COA agreements, originally considered constants, can easily become variables once shipment starts.

For his part, the charterer should have accurate knowledge of facts needed for him to estimate delivery capacity or output volume at the export source of his commodity. He should also possess the knowledge needed to forecast the consumption rate for the commodity,
and be able to provide proper and adequate storage ca-
pacity at the producing and receiving ends.

In the space of few months or a year, output may
increase or decrease, consumption habits or demand pa-
ttern may change. Sometimes drastically, and result in
wildly inaccurate forecast. This could force cuts or
increases in outputs, affect storage arrangements at
either end and upset transport arrangements made in
advance.

The aim for the charterer is to secure the tonna-
ge needed to move his commodity to its ultimate mar-
et, and so free himself from tonnage market fluctua-
tions. This involves computing all data required to
obtain an even supply of cargo to keep the vessel he
is going to hire employed, which may appear a diffi-
cult task. Once the fixture has been concluded by gua-
ranieh the COA vessel a given number of trips for a
specified period of time, the charterer would become
liable to pay the owner deadfreight on non-available
portions of the prearranged cargoes or compensate for
trips not performed because cargo is totally lacking.
When production warrants additional tonnage, the char-
terers' problems would be limited to arranging tonnage
to lift such production peaks.

For the shipowner, a COA has some features in co
mmon with consecutive voyage fixtures, and is a highly sough after form of employment. It gives a dependable base source of income on which to relay for covering capital expenses and daily running expenditures together with profits. It can also provide the opportunity to schedule the vessel in a manner that allows intermediate trips for additional earnings while deploying the vessel for the COA charterer.

A ship is often built on a COA. This can only be achieved if the charterer is bankable, so that his COA can represent acceptable security for the investors or banks. All the ingredients for a package deal will be present if a COA of long duration is involved. Two major factors required for a package deal would then be secured:

a) Necessary investment credit for a newbuilding or conversion for the COA, backed by

b) Employment over a long period of time.

A step by step analysis of the two important stages, negotiation and conclusion of a fixture, and the positive outcome of this phases, would reveal the level of competence of the negotiating parties which is bound to reveal the end results.

If we look at a simple relationship between a commodity owner acting as charterer and the owner of a -
vessel, one can say that the charterer has few variables to worry about, but bases his negotiations primarily on fixed facts.

He has a commodity to be handled between port A and port B, and knows how much hold capacity he needs - the approximate size of the ship required. He also knows the terms he can impose concerning the manner in which his goods are to be transported by the carrier under the terms of a contract against payments for services rendered to him by the shipowner.

The charterer's main variables is the ship in which his goods are to be conveyed, and his concern here relates to the extent to which it can perform safely under the most economic terms for him.

For the owner, his sole concern, like his counterpart, would be to utilize the ship in the most profitable manner. In the owner's case, the vessel may pose more variables than constants. This can only be given their proper weight with the right assessment of each of these variables during a fixture negotiations.

The performance qualities of a vessel, as des--
cribed for the charterers, represent important date that must be acquired before he surrenders his good and pays for their proper transport.

The owner should accordingly always operate — with exact and current figures about the performance qualities of his ship for a given cargo. Failure to do so can open him to serious charges and compensation claims if faulty and inaccurate description is used in the charter party.
IV

MAIN FACTORS THAT INFLUENCE THE LEVEL
OF FREIGHT RATES

A- COMPETITION IN ITS MANY FORMS.-

Member of liner conferences charge uniform rates but compete fiercely with one another in service quality and ancillary services. They are also competing against non-members providing regular services and speculative shipowners offering irregular sailings when cargoes are plentiful. Moreover, airlines and overland routes, such as the Trans-Siberian railway between Europa and the Far East, are competitors in some areas, as are certain multinational industrial companies that operate their own fleet to carry their raw materials and finished products. Ships serving similar routes will also be competing for the available traffic. Competition undoubtedly has a profound effect on rates and can result on manipulation of the rebate level. Shipowners most constantly bear in mind all aspects of competition to ensure that they can maximize their market shares.

B- THE NATURE OF THE COMMODITY, ITS QUANTITY, OVER-ALL CUBIC MEASUREMENTS, DIMENSIONS, VALUE AND THE PERIOD OF SHIPMENT.-

A number of shipowners set their tariffs by com-
modity classification with valuable, awkwardly shaped, heavy or dangerous cargoes and livestocks attracting rather higher rates, while palletized cargoes are awarded concessions by some port authorities. In broad terms, large shipments conveyed regularly over a period of perhaps a year or longer attract rate concessions. This usually takes the form of a negotiated contract rate, which generally does not qualify for rebates. Shipowners should take care not to obtain the bulk of their traffic from a few major shippers able to command large rate concessions and practically monopolize the service. It is better to have a mixture of large, medium size and small clients with a wide range of commodities in order to maintain a reasonably high average rate and lessen the impact of the withdrawal of any one client from the service owing to recession, a rates war or some other cause.

C- THE ORIGIN AND DESTINATION OF THE CARGO.-

Break bulk tariffs are based on distance from port to port, while in the case of combined transport a through rate is charge to cover sea freight and transportation by road, rail or canal between the ports and the inland points of departure and destination. Rates based on distance may be adjusted to keep a service competitive in relation to a shorter route serving the same market.
D- THE OVERALL TRANSIT COST.

It is more important that traffic flows and particular commodities be costed to ensure that the rate is adequate. Costing a shipping service is a difficult task, as a break bulk cargo liner can convey up to 10,000 consignments on a single voyage. The unit load concept inherent in containerization and ro-ro operations has eased the situation, as one need only compute the costs of the units, which generally vary only in length and weight. The costing of bulk shipments is less complex, but requires careful evaluation nonetheless. The load factor at which the vessel will be profitable must also be determined. In liner trades this tends to be between 60 and 70 per cent.

E- THE NEED FOR ADDITIONAL FACILITIES TO ACCOMODATE THE CARGO, SUCH AS HEAVY LIFTING GEAR, ASTRONG ROOM, OR STALLS FOR LIVESTOCK.

Such facilities usually command a higher rate to offset the additional expense.

F- THE MODE OF TRANSPORT.

This will influence costs and hence the rate structure. Container vessels, ro-ro ships, break bulk carriers and train ferries each apply different tariffs.
G- EXPECTED EXCHANGE RATES VARIATIONS.-

It may be necessary to introduce a currency surcharge scale in the event of violent exchange rate fluctuations.

H- AGREEMENTS WITH OTHER OPERATORS.-

This is particularly applicable to liner conference trades where uniform rates are charged by all members.

I- ANY STATUTORY CONTROLS.-

An increasing number of governments are tending to control or influence the levels of rates on services to their ports. The required evidence to justify rate increases and do not usually favour cartels.

J- RELATION WITH SHIPPER’S COUNCIL AND TRADE ASSOCIATIONS ESTABLISHED TO SAFEGUARD THEIR MEMBERS INTEREST.

Such bodies are active in most cargo liner trades and would not recommend its members to accept unjustifiable large freight rates increase.

K- BUNKERING COSTS.-

In view of the rising cost of fuel, operators tend to impose a bunker or fund surcharge to cater —
for unpredictable increases in fuel costs.

I- OPERATING SUBSIDIES PAID BY SOME COUNTRIES TEND TO DEPRESS RATES.

For example, low wage scales and other financial advantages in Eastern Block Countries permit their fleets to offer rates 40% below those of established cargo liners operators from Western Countries.

Governments and shippers are both showing increasing interest in the level of freight rates. Shippers are having a more forceful influence on the formulation of rates through the shippers councils that have emerged in recent years, while trade associations often reflect national government policies. International entities such as the EEC are also turning their attention to rates throughout the world. The combined pressure from these sources is likely to increase, thus keeping rates down to a level which many consider economic.

In ship management terms, the level of rates must keep pace with the increase in service costs and, at the same time, permit the maintenance of service standards to facilitate an expansion in trade. Shippers should therefore be sym pathetic towards reasonable tariffs so that shipowners can afford to invest in new tonnage.
A properly compiled tariff structure for all classes of cargoes should ensure the best balance between revenue production and the full, economical utilization of vessels.
CHAPTER V
V

THE INFLUENCE OF MARKET ANALYSIS ON

THE CHARTERING STRATEGIES.

Before going into details on how a chartering strategy could be chosen by making an analysis of the exist-
tant market conditions and on trying to forecast what will happen in the near future within the market, we should first study how the different aspects influence a given market so that it will be easier to know all the difficulties involved in trying to forecast what will happen and to understand to a certain level how accurate this forecasting can be by knowing how volatile the market is.

A- THE STATE OF THE MARKET.

It has been calculated that about 70% of the volume of goods transported at sea in the world is fixed in the open market. The balance is taken care of by the liner services in their strictly directed and scheduled traffic with controlled freight terms and conditions and freight levels. It is estimated that the spot market volume is about five to ten percent of the total open market volume. This sector gets an increasing supply of ships during periods of general economic recessions, when there is a low demand for sea transport.
An illustration will show how operative forces work in practice in a miniature market: if for a specific loading date within a limited area there are ten ships — open for employment, but there are only nine cargoes — offered, then it is very likely that none of the vessel will obtain a higher freight rate than the lowest rate anyone of the respective shipowners is willing to accept. In the reverse situation, where there are ten cargoes available but only nine ships one can expect every ship which is fixed to obtain better terms than the preceding one.

Factors influencing the general freight situation and the developments of the open market are, except for the general state of the world economy, sudden changes in demand for specific commodities, an economic boom within special limited market areas, state of war, closure of important routes, crop failures, extreme congestion in important ports, oversupply of specific types of ships, unusually late or early closure of icebound waters, etc...

It is practically impossible to predict with any degree of certainty the future developments of the freight market with a longer perspective. Already a forecast for the next six months period will be very uncertain.

It is not possible to state beforehand at which time exactly the market will start to move upwards or —
downwards, how large the variation will be and for how long the prevailing market conditions will last.

From a general point of view it can be said that periods of a low freight market will probably last substantially longer than periods of high market conditions. Further it is possible to state that there is not such thing as a "normal" market level, but the state of the market is constantly oscillating between the extremes. Possibly one may also speculate (in the main bulk trade) in a reduction of the open markets — share of the total volume transported to the advantage of enclosure, strictly controlled transportation systems eg. as a result of political movements in the shipping field.

There are always even during periods of general economic recessions, areas where there is a more or less temporarily high demand for tonnage. In the 1977 for instance, there was a great excess of tonnage in the dry cargo and tanker markets. A tendency to improvements in the state of the dry cargo market was counteracted, eg. by continuing deliveries of bulk carrier from the shipyards. At the same time however there was a strong demand for ocean going ro-ro vessels, which thus obtained very high time charter rates. The situation was also largely the same for the reefer ships at the time.
The variations in freight levels are very large and this is easily seen in the diagram showing the tanker market fluctuations during a quarter of a century. The diagram would largely be the same if notations are made for one of the important dry cargo — commodities e.g. coal.
Other factors which contribute to the uncertainty in forecasting and which have had and will have a decisive influence on the freight market development are economic occurrences in countries like the USSR, USA, China and Japan. For example the USSR is an important consumer of grain and where there is a bad harvest in that country huge quantities have to be imported and consequently shipped. Information about such matters tend to hit the shipping market suddenly, although not quite unexpectedly.

During a general low freight market period, every sign is noted which may indicate a change towards an increase in demand for sea transport, like the state of the general economic world market, the development of the general political situation, the market trends within special sectors eg. steel output, the production of cars and the outcome of the harvest in important consuming areas. When there seems to be a small but firm upgoing tendency simultaneously shown by most important market indicators, an expectation is created which in the beginning is weak but which grows stronger and stronger among the parties in the shipping business. It is in the interest of the charterers and the shippers to try to belittle such signs of forthcoming changes, while the shipowners them take —
an attitude of wait and see. If it them little by little, become evidence that there is substance in these market trends, the charterers get more and more active in the time charter markets trying to secure long terms contractual engagements at low freight levels. Thereby the supply of tonnage in the spot market will decrease and the freight levels generally start to rise slowly.

Now, if there arises a sudden increase in demand for tonnage in a special trade, like, for instance, the grain trade between the USA or Canada and the USSR, a scarcity of tonnage will occur in other areas and in other trades dependent on the same size and type of ships. The rising trend in freight levels will them become further accentuated. At this moment certain phycological factors will start to contribute to the development of the market. Charterers, in fear of running into a situation of acute scarcity of tonnage, will try to conclude their shipping arrangement as soon as possible. The owners can ask for increasingly high freight rates and if, in addition, a sudden political crisis arises, then the parties interested in the shipping market may find themselves in a real freight boom.

A consequence of such development is often that the owners of older vessels which have been laid up during the low market period will start trading their ships again instead of sending them to the scrapyards.
Little by little owners and charterers will now start realising that they dispose of transport capacity -- which is too big and which is at the same time too expensive. They will now start to offer part of their previously time chartered tonnage for employment on the spot market or for time charter engagements. Another factor which will affect the market with a delay of some two or 3 years is that a number of owners will now order new buildings, which if they have bad luck, will be delivered during the next period of a low freight market and at that time maybe will contribute to a further deterioration in the prevailing level of the market.

A recession is now predictable although its precise timing may not be possible. The owners will show an increasing interest in fixing their ships for long term engagements and the freight levels will move now downwards. The charterer will hold out to obtain ever lower freight rates and as suddenly as the levels start to raise to very high points, the market will now drop.

B- FORECASTING.-

Now that we have seen how difficult it may be to forecast the future behaviour of the market, but at
the same time we have realised the importance of knowing as approximately as possible how the market will be in the near future, we must take into consideration - some of the advantages and disadvantages of trying to forecast the market fluctuations.

I won't argue that we can forecast everything. certainly, i would agree that "no one pretends "single events" can be predicted".

There are some good known forecasting techniques:

a) Extrapolating or extending the present trend - or situation into the future. Although this works reasonably well for some events in the immediate future,-- the volatile nature of the freight market make it very unsatisfactory for use in this area.

b) Regresion analysis ie. an anlysis of all the basic factors concerned and then considering what will happen to these factors in the future. From these adjusted factors the forecast can be calculated.

This is the method employed by most consultants -- and the mathematics involved, although, once dounting, can now be easily handled by a standard computer package.
c) See what the competition is up to and keep close behind them, this has the advantage, particularly where technical innovations are involved, that mistakes can be avoided. However where trends in freight rates are concerned it may well mean that decisions are too late and considerably financial advantages are lost.

d) The judgement of proven experts. This has the advantage of being quick and human brain is perhaps still the best computer for dealing with factors difficult to quantify.

Perhaps the best method is a judicious mixture of all four, but I do suggest that a sophisticated model building approach can provide the sound base of information needed for quantitative investment strategy.

Typically a company in a capital intensive industry (shipping) uses it to forecast price and supply. This technique has prove to be an invaluable tool that allows the company to anticipate market forces and thus to forge better strategic framework for competitive decision making.

This model teaches a company as much about its competition as it does about its market position. The reason is that this model building technique requires the company to identify the underlying factors that guide —
the decisions of competitors. To do that, the model does not assume that the competition behaves in a rational manner, in fact, it forecast correctly only when competitors are assumed to behave in a simple pavlovian fashion, responding to outside stimuli without sufficient thought as to the consequences.

Using this simulation teches the company that success lies not in pavlovian responses but in knowing and anticipating the competition and perhaps in making courageous countercyclical investment decisions that influence tomorrows prices.

Companies also learn to look further ahead at the impact of their own market decisions. And most important, they find that the timing of investment can and will determine success or failure.

If the profit of a company in a capital intensive industry is buffeted by the storms of investment cycles and if the company is committed to remain in business, then an industrial market simulation is the most effective pilot plant for testing investment strategy.

Now that we have seen ways in which forecasting can be done, we will study the influence of such knowledge of the future behaviour of the markets in the main parties involved such as the shipowner and the charterer, taking into consideration that the interest is very different from one another.
C - THE SHIPOWNER'S POINT OF VIEW

The advantages to the shipowners of time charters is the security of an assured income over a known period of time. With large ships that have been paid for with borrowed money, the financial risk of not having his ship earning, are such as to deter the shipowner from speculating on the spot voyage market and look for a time charter. In fact frequently in the past the long term time charter had to be obtained before the shipowner could obtain the loan of the money to buy the ship.

However because of inflation and the difficulty of agreeing on acceptable "escalation" clauses, long term charters of the length used in the sixties (15 years) are now seldom sought for by shipowners.
From the economic consideration the ideal from the shipowners point of view is to charter his vessel on a series of voyage charters on a rising market and to use a time charter to keep his ship employed when the market becomes depressed.

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THE CHARTERER'S POINT OF VIEW.

The charterers, on the other hand, looks to meet his known requirements with long terms time charters and covers his fluctuating peak demands with voyage charters. Therefore, the point is that he must try to long term time charter when the market is at its lowest point and will start to raise in a near future so that he can take the advantage of a low freight rate when the freight level is really high. And the opposite when the market is dropping eg. voyage charter during a decrease of the market so that he will not be enclose on a very expensive contract when the real value of the market is very low.

With some cargoes such as iron-ore, the long term supplies and demands are known so this type of cargo lends itself to long term time charters. Grain, in the other hand is seasonal and deppends on the success of the harvest. Both the supply and the demand fluctuates. A large percentage of grain is therefore carried under voyage.
charter.

This is, of course, easy to say with the benefit of hindsight. In fact it is a question of luck or judgement in estimating when the freight rate will stop rising and how long it will remain depressed.

In practice, of course, some shipowners and charterers prefer voyage charter and some prefer time charter, and charter accordingly.
This is usually what happens in real life during the market fluctuations.
CONCLUSIONS
CONCLUSIONS

To conclude my project I will like to emphasize on what was mentioned in CHAPTER V with respect to forecasting, because we can be aware of the fact that the freight market is not a uniform market where the trend is entirely up and down, and that it consist rather of a number of part markets that are not necessarily dependent on each other, but often can develop very differently, we can also be aware of the fact that a charter means that the owner or the disponent owner in one way or another promises to put the vessel or a certain transportation capacity at the disposal of the charterer, and that the charterer, in his turn, promises to pay the agreed sum, we can also study into details what a voyage or demise charter is or what the tanker market or the ro-ro markets are like and how they have behave up to now, but these have not been the main objectives of my project.

The main objective is to understand what influence a market analysis can have on chartering strategy taking into consideration that the market analysis can not only be based on actual facts but on coming events or actual events that will influence the level of freight rates within the next coming years.

To do so the forecasting methods must be used, es-
especially in difficult times like the ones we are suffering now, where a good policy based on foreseen events can be the difference between success or failure, because to know what we are going to do we must know first where we are going to do it, which means that if we are going to pick any economic policy, we must have at least certain knowledge of how the market is going to behave, to be able to decide with a degree of certainty the best policy to be chosen.

Apart from the four well known forecasting methods mentioned in the second point of chapter V, there is a relatively modern method which contains a judicious mixture of all four and which becomes a sophisticated model building approach which can provide the sound base of information needed for quantitative investment strategy, also this technique has prove to be an invaluable tool that allows the company to anticipate market forces and thus to forge better strategic framework for competitive decision making, companies also learn to look further at the impact of their own market decisions, and most important, they find that the timing of investment can and will determine success or failure. Therefore if the profit of a company in a capital intensive industry is buffeted by the storms of investment cycles and if the company is committed to remain in business, then an indus—
trial market simulation is the most effective pilot plant for testing investment strategy.

Of course I will not argue that everything can be forecasted with a complete degree of certainty but it teaches the company a lot of things which will influence on its decisions and also it will give the company the advantage of knowing how will the market may fluctuate or respond to different types of stimuli and therefore to take advantage over the other competitors.