# UNINERSITY OF PIRAEUS

# DEPARTMENT OF MARITIME STUDIES

# MASTER OF SCIENCE IN MARITIME STUDIES

# FACTORS AFFECTING MARITIME INSURANCE CLAIMS ON H&M AND CARGO INSURANCE IN THE MARKETS OF BULK CARRIERS AND TANKERS: CASES ANALYSIS

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## PREAMBLE

This dissertation is the outcome of a multifaceted research on marine insurance related to Hull & Machinery and Cargo claims on tankerships and bulk carriers. The investigation was undertaken as part of my Master in Maritime Studies of University of Piraeus. In the course of this study, different cases were scrutinized and books from different areas were studied in order to cover the subject matter from various aspects such as legal, financial and commercial, and give an overall overview on the marine claims industry.

The Thesis comprises nine charters. All first eight of them include introduction, main subject and conclusion whereas the ninth chapter includes two claims cases the judgment of which is presented, followed by an epilogue.

Since marine insurance is a huge part of shipping industry, claims market could not be of a lesser extent. For the purposes of better understanding of this chaotic market, the thesis begins with a brief presentation of the basic components of marine insurance and continues with a deep analysis of economic, commercial, legal and other determinant factors, offering the reader the opportunity to contemplate how the claims market works and perceive the plethora of factors that have direct or indirect impact on the course of the alleged claims.

The completion of this dissertation would have never succeeded without the great guidance and support of my supervisor, Mr. Eleftherios Thalassinos, and my thesis committee members to whom many thanks and gratitude should go. Special thanks also go to my beloved family and my fiancé for their support and constant encouragement over the years as well as to Captain Andreas Efthymiadis, DGS Marine Group, for his strong belief in my ability and his valuable feedback.

*This thesis is dedicated to my family*

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**ABSTRACT**

Marine transportation has always been of fundamental importance to the development of economies worldwide. Nowadays, almost 90% of international commerce is conducted by sea. Marine adventure is exposed to danger despite advancements in safety and technology over the centuries.

This thesis aims at providing a comprehensive description of the factors that affect marine insurance claims. For that purpose, all main components of claims market were examined one by one and then interrelationship between them was considered in order to overall present the coefficients of a claims indemnity.

The basic principle of a contract of insurance is that the indemnity that the insurer undertakes to compensate the assured is the pecuniary loss suffered by the latter on the basis of that contract. Claims market is rather complicated and demands experts from different fields in order to settle any disputes satisfactorily. The outcome of a claim's resolution can never be standard as it is affected by a plethora of factors not only concerning the substantiation of the claim but also the measure of indemnity.

**Keywords**

Marine insurance, Claim, Subject matter insured, Policy, Market.

# INTRODUCTION

This thesis deals with H&M and cargo claims and how they develop depending on the particular circumstances under which they are issued. Whether the subject matter is ship or cargo, the factors that can determine the outcome of a claims incident are plenty and so vital that can totally affect the expected results. Highlighting the unpredictability of claims market and the complexity of marine insurance industry is what this thesis aims at. Successful settlement of claims disputes demands deep knowledge and investigation of different factors, each one of which has to be examined separately but also as part of the total, in order to understand, explain and predict the upshot of the procedure.

Whether it is large and complex hull losses, machinery damage or shortage of cargo, marine claims can pose significant financial issues for a business. Maritime industry faces changes. Advancements in technology will bring unprecedented unpredictability. Vessel sizes are increasing, several activities have become more complex with human factor playing an important role in casualties and the macro-economic environment is becoming more demanding.

All these coefficients have put added pressure on the marine insurance industry and have made it essential to obtain extensive knowledge, as multifaceted as possible, so as to cope with the new challenges. What influences finally the outcome of a claim's issuance? What is the importance of commercial trends at the time of the casualty? What is the reason for the parties to seek for a favorable place of resolution? What are the factors that have to be contemplated before submitting a claim? What determines the measure of indemnity? Are there any differences in claims' determinants between tankers and bulk carriers? This all-embracing approach of marine insurance industry appears advisable to all experts of the industry and is what this thesis tries to convey to readers. Methodology used in this research was selected bibliography and cases analysis.

This thesis comprises nine chapters. All first eight of them include introduction, main subject and conclusion whereas the ninth chapter contains two cases analysis, one hull and one cargo claim respectively.

The first chapter involves the basic components of marine insurance, namely sources of marine insurance law, content of contracts of indemnity, insurable interest, assured and subject matter insured. A presentation of bulk carriers and tankers market follows in chapter two and different types of polices come after in chapter three. Chapter four describes the most usual types of marine insurance, viz hull & machinery and cargo insurance, followed by chapter five in which valuation of tankships and bulkcarriers is examined, presenting the factors that affect and assess their value, the impact of the repairs cost and the commodities value, as well as the influence that valuation has in insurance cover. Volatility and major claims in the markets of dry bulk carriers and tankers are analyzed in chapter six, where also claims trends, major hull and cargo claims and oil price fluctuation are examined. Freight is also a determining, although indirect, factor in marine insurance hull and cargo claims and could not but be presented in chapter seven that follows. Chapter eight deals with the role of policy terms and of applicable law in the outcome of claims and finally chapter nine includes comprehensive summaries of two claims cases, "Brillante Virtuoso" dealing with constructive total loss and "The George S" involving shortage of cargo claim, in an attempt to present the practical aspect of the theory described in this thesis.

## CHAPTER ONE: BASIC COMPONENTS OF MARINE INSURANCE

### 1.1 INTRODUCTION

Marine Insurance covers the loss suffered by the assured on the basis of a signed contract binding for both parties involved. The factors on which the development of a contract of insurance grounds is dependent on the particular parts that compose that contract and therefore an overview of the key terms is found in this chapter.

### 1.2 SOURCES OF MARINE INSURANCE LAW

Most legal principles and rules relating to marine insurance are to be found in the Marine Insurance Act (MIA) 1906. The object of this Act was to codify the common law rules relating to marine insurance. The rules of the common law and the law merchant continue to apply to marine insurance, so far as they are pursuant to the provisions of the Act (s.91(2) of the MIA 1906).

The MIA has been instrumental in the development of marine insurance statutes in other legal systems as well. For instance, Australia, Canada, India, Malaysia, New Zealand and Singapore incorporated the provisions of the MIA 1906 into their legal system word by word. The Act is also important from the point of view of United States Law where there has been no similar statute. The U.S Supreme Court has been of the opinion that in so far as federal law is concerned, U.S courts should look to the MIA 1906 for applicable rules.

Case law is another significant source of marine insurance law. Case law preceding the Act may be relevant for interpretative and historical reasons. Case law subsequent to the Act, on the other hand, is relevant as it might provide clarification of various provisions of the MIA 1906.

Clauses such as the Institute Time and Voyage Policies Hulls (1995) and Institute Cargo Clauses duly incorporated into the relevant policies, also provide for guidance on the handling of a marine casualty and the claims thereby. York-Antwerp Rules will provide for the adjustment of a general average case when a great number of other regulations will also contribute to the final outcome of the claim raised.

## 1.3 CONTRACT OF INDEMNITY

The terms of a contract are agreed based on the freedom of the parties involved. The insurer agrees to provide protection against stipulated losses the assured might suffer by reason of being connected to a marine adventure. In effect, the policy transfers the risk of loss or damage to the subject matter insured to the insurer who will bear it should it actualize. In case of loss or damage the assured shall be fully indemnified, namely return to the position as at the commencement of the risk.

The principle of indemnity is contractual and can therefore be controlled by the parties. Valued policies give the assured and the insurer the room to agree a measure of indemnity which may not represent full indemnification but is respected and the courts are obliged to consider the value fixed in the policy as conclusive, provided there is no breach of the duty of principles such as utmost good faith, the law of non-disclosure of a material fact and of misrepresentation and the rule against wager. In case the contract of insurance is a gaming or a wagering one, it is merely void ( s(4) Marine Insurance Act 1906 ). There are two forms of gaming and wagering contracts: that where the assured has no insurable interest or has no expectation of acquiring such an interest and that where the policy is made containing words such as “interest or no interest”, “without further proof of the interest than the policy itself”, “without benefit of salvage to the insurer” or any other like term and is commonly known as a “ppi” policy or an “honour” policy as it relies on the insurer to honour the contract even though it has no legal substance. In placing such limits on recovery under the policy the principle of indemnity ensures that the assured receives adequate protection from loss or damage incurred while ensuring that the assured is not over-indemnified, allowing a profit, nor under-indemnified, leaving the assured exposed to loss[1].

The fundamental principle that insurance is a contract of indemnity precludes profit making by an assured through double insurance. Over- insurance on the same subject matter by or on behalf of the same person means the assured is compensated for more than the pecuniary loss suffered which is far from the nature of indemnity.

[1] Rhidian Thomas, The concept and measure of indemnity in marine insurance policies, The Modern Law of Marine Insurance. Vol.3

Where the assured is under-insured he is liable for the amount of that under-insurance. In that case, if moneys are recovered by a liable third party they must be apportioned between the insurer and the assured, being his own insurer for the amount of under-insurance, as a proportion of their liability to the sum recovered.

## 1.4 INSURABLE INTEREST

It is essential to the validity of a contract of marine insurance that the assured has an insurable interest in the subject matter insured so that he puts in a valid claim under his policy. The presence of insurable interest distinguishes marine insurance from wager. Hence only the person who has interest in the marine adventure can effect a valid contract of insurance, meaning the person who stands in any legal or equitable relation to the marine adventure or to any insurable property at risk therein. Therefore, it could be a defense for the insurer not to indemnify the assured in case of absence of insurable interest[1].

Today it is accepted that the definition of insurable interest given by the MIA 1906 is not unconditional[2]. Therefore, the courts make various approaches to define insurable interest from case to case. It is not imperative that the person must have a whole interest in the subject matter insured but even limited forms of interest can be insured. The insurable interest must by rule attach at the time of the loss but certain exceptions to the general rule recognize two cases where recover is permitted even though the interest does not attach at the time of the loss, viz where the loss was sustained before the insurance was effected and where the policy was assigned only after the loss. More specifically, where there is a "lost or not lost" clause in a policy the assured is permitted to recover under the policy even though the loss was sustained before the insurance was effected, usually in cases where the assured is the purchaser of goods without been aware of the lost or not condition of the merchants.

[1] Nicholas Legh-Jones, The Elements of Insurable Interest in Marine Insurance Law, in Thomas (ed), Modern Law of Marine Insurance, Vol.2 (Londonand Hong Kong,LLP)(2002), Chapter 4
[2] See Feasey v Sun Life Assurance o of Canada(2003) Lloyd's Rep IR 693;O' Kane v Jones(2004) 1 Lloyd's Rep 389, para. 145

What is more, when a contract is assigned to an assignee after the loss has sustained, the latter can acquire an interest in the subject matter insured provided that the assignor had at the time of the assignment an interest to assign.

## 1.5 THE ASSURED

The assured under a marine policy are the persons who have an insurable interest in the marine adventure or the insurable property at risk therein and will be entitled to be indemnified, namely the shipowner, the owner of the goods, the person who has a contingent or defeasible interest in goods or freight, the owner of the freight, the mortgages and the mortgagors, the insurers, the shareholders having an insurable interest in the ventures of the company, the captors, the agents and any other like persons who expect to make profit of the preservation of the subject matter insured. Therefore, the requirement that the assured stand in a legal or equitable relation to the insured subject matter may be avoided and the factual risk of loss of benefit or prejudice could be considered as the sole criterion[1].

## 1.6 THE SUBJECT MATTER INSURED

The subject matter insured is the core of a marine policy. Ship, goods, movables, freight, profits, commissions, disbursements, wages, ventures undertaken by a company and third party liability are insurable according to the 3d Section of Marine Insurance Act 1906. In all cases, the subject matter insured has to be designated in the policy with reasonable certainty, otherwise breach of the duty of disclosure can be construed. Depending on the subject matter insured, the measure of indemnity in a claims' resolution is influenced by different factors and the figures recovered by the insurers appear to be stable or unstable considering the conditions under which each insurable property is being used.

The measure of indemnity of the subject matter insured is deeply connected to the nature of each fortune. International commerce, global economic indexes, supply and demand of products, political and weather conditions, freight fluctuations, different kinds of policies and many other factors affect more or less the amount for which the

[1] Rhidian Thomas, Marine Insurance: The Law in Transition, 1st Edition,2006, para 2.28

assured will be finally indemnified considering his insurable property should a claim be substantiated.

## 1.7 CONCLUSION

Despite the existence of the statutory law applied in marine insurance, practice and precedent cases are equally determinant for the setting of a marine contract.

The two major markets in shipping industry, viz that of bulk carriers and that of tankers, follow different tendencies in insurance mainly due to the different conditions that appear in each market. The shipping markets of bulk carriers and tankers are briefly presented in the following chapter.

# CHAPTER TWO: THE MARKETS OF BULK CARRIERS AND TANKERS

## 2.1 INTRODUCTION

Maritime market is a set consisting of separate markets that differ mostly depending on the type of cargo and the type of ship. According to Dr. Martin Stopford the basic distinction in shipping market regards its' two largest segments, viz the liner shipping market and the bulk shipping market, both determined by the seaborne trade[1]. Bulk carriers and tankers are the two most common types of ships in bulk shipping industry transporting dry and liquid bulk cargoes on "*one ship one cargo basis*".

## 2.2 THE BULK CARRIERS SHIPPING MARKET

Drybulk carrier industry is an essential link in international trade with billion tons of drybulk cargo transported by sea, comprising almost more than one third of all international seaborne trade. Drybulk cargo is shipped in large quantities and is generally categorized as either major bulk or minor bulk. The five major bulks, namely iron ore, grain, coal, phosphates and bauxite in spot market, constitute the vast majority of drybulk cargo by weight and influence dominantly seaborne trade volumes. Minor bulk cargo includes agricultural products, mineral cargoes, cement, forest products and steel products.

[1] Stopford M: "Maritime Economics", (1997 p.6)

The demand for drybulk carrier capacity is determined by the demand for commodities shipped by drybulk carriers, which in turn is influenced by trends in global economy. In general, growth in gross domestic product and industrial production is deeply related to peaks in demand for seaborne transportation.

What is more, seasonality is a factor that significantly affects drybulk carrier industry due to seasonal demand fluctuations in the products transported.
Economically, the market of drybulk carriers satisfies the conditions of perfect competition: maximizing the profit of their ventures is the primary motivation for ship-owners and charterers, whose number is such that can affect the market only as a total. Moreover, the entry and exit of new shareholders in the market deals with no significant limits.

## 2.3 THE TANKERS SHIPPING MARKET

Tankers are the merchant vessels that are designed to transport liquid bulk cargoes, major of which are crude oil and oil products. The market of tankers is highly segmented according to the type of the cargo transported and the size of the tankship.

The demand for tanker capacity correlates highly with oil crisis. Economically, the market of tankers, similarly to the market of drybulk carriers, satisfies the conditions of perfect competition. Tankers, especially those transporting crude oil, usually operate ballast when returning to the initial port of loading. Most owners prefer to employ their ships on the basis of long-term time charter. Nonetheless, a significant number of ships are employed on the basis of short-term voyage charter. When the market is in decline, tankers are mostly occupied in the "spot" market or based on short-term time charter so as to avoid low freight under long lasting contracts. IMO as well as the American legislation concerning oil pollution have changed dramatically the requirements of the tankers market. What is more, the fluctuation in the price of oil results in the tanker shipping market being volatile. The small number of oil exporting regions as well as the very specialized offshore loading terminals consist determinant factors in the market of tankships.

## 2.4 CONCLUSION

Both Drybulk carriers and tankships operate primarily in what is called “tramp” shipping market. Hence, they trade on the spot market with no fixed schedule or published ports of call and are highly influenced by international trade and the trends in demand and supply. Mutability and fluctuation are the main characteristics of tramp service and therefore deep knowledge of the global commodity needs and timing are essential to keep bulk carriers and tankers profitably employed. The differentiation of cargo transported by drybulk carriers and tankers lays the foundation for the differentiation and specification of the factors that affect each category in all aspects, one of which is marine insurance that will be analyzed in the present thesis.

# CHAPTER THREE: TYPES OF POLICIES

## 3.1 INTRODUCTION

In the context of marine insurance the contract embodied in the policy of assurance is fostered by the Marine Insurance Act 1906 and the market practice. Drybulk carriers and tankships are employed in the market via a number of alternative contracts depending on whether the parts wish to insure the subject matter for a definite period of time or for a definite voyage, or whether the parts wish to agree on an insurable value or not. The type of policy elected by the parts consists the framework of the coverage provided by the contract and as that it significantly affects the measure of indemnity should a peril insured occur.

## 3.2 TIME, VOYAGE AND MIXED POLICIES

Depending on whether the policy is a time or a voyage one the clauses contained in each type provide for different extent of cover and therefore parties choose the policy that best suits the nature of each shipment.

Time policies insure the subject matter for a designated period of time. Customarily, the time and date of commencement and termination of the cover under the policy will be named expressly. However there can be no actual date of termination. What is more, the

prescription of a geographical limitation upon a time policy does not affect the type of the policy which is still considered to be a time policy covering voyages within the geographical limits. When arises the inquiry of whether the risk had attached at the time of the loss it is the court's duty to define the wording of the contract and the intention of the parties. A time policy incorporates the American Institute Hulls Clauses and in particular the ITCH(95) which govern issues such as navigation, continuation and termination of the policy, and regulate the consequences in the event of any breach. This policy is most suitable for hull insurance.

Voyage policies insure the subject matter "at and from, or from one place to another". The interpretation of the terms of a such policy requires great attention as to when the policy attaches or terminates, whether it be effected on a ship or on goods. Voyage policies incorporate the IVCH(95) and the ICC either (A), (B) or (C). This type of policy is applicable mostly in goods.

A mixed policy is a combination of time and voyage policy. Therefore, it covers the risks for both particular voyage and for a stated period of time and ensures that the cover extends beyond the time when a voyage policy would normally terminate. However, there are cases where a mixed policy remains a time policy with the constraints of a voyage policy ingrained in it. In order to determine whether a mixed policy is a voyage or a time one the court has to ascertain the intentions of the parties when the contract of insurance was drawn up. The importance of this determination lies in the implementation of different clauses for each case and hence has to be clarified when effecting a policy.

### 3.3 VALUED AND UNVALUED POLICIES

According to section 27(1) of the MIA 1906 a marine insurance policy can be either valued or unvalued. That division bears significant implications for the traditional conceptualization of the principle of indemnity. The precise amount which the assured is entitled to recover depends on whether the policy is valued or unvalued or whether the loss is total or partial. The definition of the term "measure of indemnity" as stated in the Act 1906 is subject to the distinction between valued and unvalued policies.

Depending on the type of the policy as valued or unvalued and the nature of the subject matter insured the measure of indemnity is determined by different factors.

Valued is the policy where the value of the subject matter insured has been specifically agreed between the assured and the insurer. The agreed value represents the figure agreed at the time the contract is made, before the policy attaches, and is conclusive unless there is fraud implied. Thus it is the duty of the courts to consider the fixed value binding both for the parties and for their adjustment. The sum agreed constitutes the keystone according to which the court will substantiate the final ruling of the amount recovered after having defined whether there has been a total or partial loss of the subject matter insured. Valued policies, though common in the case of insurance of ships and profits, are rare in the case of goods*. The purpose of fixing in advance the amount of compensation to be paid to the assured is to avoid disputes as to the value of the subject-matter insured. Often business efficacy and practicality necessitate that the agreed value be greater or lesser than the actual market value of the subject insured. For instance, so as to discourage the making of small claims the insurer may insist on a high agreed value to bolster the protection from such claims offered by deductible clauses. Also, in favour of the assured, setting the agreed value high may offer security against market fluctuations. This can be seen in the case of ships where value rises and falls dependent on the strength of the freight market. As a consequence, in light of the range it may span, an agreed value is said to transform the nature of the financial bargain. Where the value is fixed between assured and insurer the nature of the bargain is not to return the assured the position occupied at the commencement of the risk. Instead the agreement becomes one to indemnify the assured to the extent of the parties choosing.

One of the main issues resolved by courts in what concerns a hull insurance is whether a vessel is or is not a constructive total loss. Under s 27(4) of the Act and common law, when determining whether a vessel is or is not a constructive total loss, the cost of repairs is to be compared with the market value of the vessel after she has been repaired. Under the Institute Hulls Clauses, the insured value is to be taken for the purpose of comparison.

Contrary to a valued policy, in the case of an unvalued policy, the insurable value of the subject matter insured is fixed in the spirit of section 16 of the Act. Namely, the insurance value represents the actual market value of the insured subject matter at the commencement of the risk. The insurable value takes the value of the subject-matter when the risk attaches and not immediately before the occurrence of the event causing the loss.

The sum recoverable by the assured, in connection therewith, is being termed as the measure of indemnity. Calculation of the measure of indemnity is determined fundamentally by the classification of the loss and the nature of the policy.

## 3.4 CONCLUSION

The outcome of a claim can be determined in a significant extent by the type of the policy and the relevant terms for which it provides. The cover of the insurance and the specified or not value of the subject matter insured are determinant for the valid substance of a claim or the amount that will finally be paid to the assured as indemnity.

# CHAPTER FOUR: MOST COMMON TYPES OF MARINE INSURANCE

## 4.1 INTRODUCTION

The subject of Marine Insurance is very wide and encompassing. That is the reason why there is a definite categorization of various types of marine insurance. As per the needs, requirements and specifications of the transporter, an appropriate type or types of marine insurance can be selected to be put into operation. The types of marine insurance that are available for the benefit of a client are many and all of them are feasible in their own way. Depending on the nature and scope of a client's business, he can opt for the best marine insurance plan.

In basic terms there are four main types of marine insurance as per the subject matter insured; hull and machinery insurance, cargo insurance, liability insurance, freight insurance.

## 4.2 HULL AND MACHINERY INSURANCE

Hull and machinery insurance's role is to protect the ship owner's investment in the ship. It is a property insurance which covers the ship itself, the machinery and equipment. Furthermore, the insurance covers some liabilities, normally collision liability with another ship (known as RDC –"Running Down Clause'') and sometimes liability for colliding with other objects than another ship (known as FFO-"Fixed and Floating Objects"). Due to the variation of the conditions, it is recommended that the Master finds out how the insurance is placed for the ship. It is often that these liabilities are handled by the owner's P & I club. What is more, h & m insurance covers salvage and general average contributions.

Typical hull and machinery claims include total loss of the ship, damage to the ship, engines and equipment, explosions and fires, groundings-damage to the ship, salvage of the ship and possible contribution in general average, collisions-damage sustained to the ship and sometimes liability towards the other ship, striking other objects-damage inflicted.

The insurers will pay the ship owner for the cost of repairs to the ship after the damage has been surveyed and tenders from repair yards have been submitted. The ship owner will have an agreed amount known as the "deductible" which has to be paid by him before a claim against his insurance policy is submitted.

There are two standard sets of Institute Hulls Clauses which may be employed with the current Lloyd's Marine Policy (MAR 91) and the Institute of London Underwriting Companies Marine Policy Form (MAR 91). The standard hull policies are a) the Institute Time Clauses Hulls, 1/11/95 (ITCH(95)) and b) the Institute Voyage Clauses Hulls, 1/11/95 (IVCH(95)). All the Institute Clauses are unreservedly subject to English law and practice[1].

[1] Mandaraka-Sheppard, A, 'Hull and time clauses: marine perils in perspective', in the Modern Law of Marine Insurance, 1996, London: LLP,pp 49-54

## 4.3 CARGO INSURANCE

The owners of cargo, which is to be transported by sea usually cover their financial exposure against loss of/or damage to cargo for a declared value. Cargo insurance is provided by the Syndicates of Lloyd's but mostly by insurance companies around the world that keep records of their losses and use this data to help them calculate premiums for insurance of certain types of cargo in different kinds of marine transportation.

The cargo insurer will compensate the owner of the cargo for any loss or damage to the cargo. Thereafter, the assured may claim compensation for his loss from the carriers of the cargo.

Cargo insurance protection is an aid to commercial negotiations. It allows traders to proceed with confidence knowing that each party to the transaction is properly protected.

One could say that in fact, a marine insurance policy serves the needs of importers and exporters in international transactions.

INCOTERMS refer to the obligations of buyer and seller under the terms of international sales. Some of the most frequently used terms in international trade are F.O.B (free on board, named point of shipment) and C.I.F (Cost, Insurance and Freight, named point of destination) which play a major role when it comes to parties' liability for insurance.

All policies of insurance on cargo will set out the perils that the underwriters provide cover against. Sometimes the cover is very wide, encompassing most types of risk that a cargo might encounter during the course of its transit. Sometimes the cover is quite limited with underwriters agreeing to insure the cargo against only a short list of named perils. Whenever dealing with a claim or potential claim under a cargo policy, the first things to establish are the terms and conditions under which the cargo is insured to check that the loss or damage is actually covered.

For cargoes insured at Lloyd's, or in the London Market, it will usually be the case that the insurance will be subject to Institute Cargo Clauses (ICC). These are standard wordings agreed by the London Market and are widely used or closely copied around the world. The ICC were revised in 2008 and reissued as ICC 1/1/09 at the start of 2009. It is important to be mentioned that both the old and the new clauses exist in parallel, although it is said that the 1/1/09 version is favored by the assureds. Whenever considering a claim it is therefore very important to ensure you know which version of the clauses will be applicable, which should be clear from the certificate or other evidence of insurance. The differences between the two versions are not great. However, claims adjusters need to be familiar with both sets of clauses.

Institute Cargo Clauses are divided into three categories, (A),(B) and (C). ICC (A) provide the widest cover of all of the Institute Cargo Clauses. What is covered is physical loss or damage to the subject matter insured and does not include purely financial or consequential loss. Under an All Risk policy there is no requirement for the Assured to show exactly how the loss or damage occurred. It only needs to be shown that the loss or damage is fortuitous. ICC (B) and (C) are considered to be the restricted or limited conditions. An Assured who wishes to insure against serious events only may, for a cheaper premium, opt for the restricted cover that is provided in the (B) and (C) clauses. These are named perils policies, namely there is a specific list of named perils. As compared with the A clauses, where the insured only has to show that something occurred that was fortuitous, causing loss or damage to the goods, under a named peril policy of any sort it has to be shown positively what happened to the cargo and how it can be linked to one of the named perils. A number of trade associations have negotiated variations of Institute Cargo Clauses (A), (B) and (C) for use within their own particular trades.

## 4.4 FREIGHT INSURANCE

The subject of freight is connected not only to contracts of carriage but also to those of marine insurance as it consists one of the subject matters insured. Thus, where freight is concerned, contracts of carriage and contracts of insurance though separate issues are closely related.

Freight may be insured under a policy incorporating the Institute Time Clauses-Freight (1995) or the Institute Voyage Clauses-Freight (1995). As s 3(2)(b) of the Act affirms freight is insurable under a policy of marine insurance provided that the freight '..is endangered by the exposure of insurable property to maritime perils'. Thus, because freight is intangible, in that it is money earned by the employment of the ship, the earning of that freight can only be a risk insured if the insurable property earning that freight is exposed to maritime perils. However, for the insurer to be liable for a loss of freight there must be some proof that the freight would have been earned. That is, the goods must either have been placed on board the ship or there be in existence a contract of carriage relating to these goods. In the case of an open policy, the freight insured is the gross freight and not the net freight which is the amount that would have been payable by the cargo interests, less the charges that would have incurred in the event of the safe arrival of the ship (seaman's wages, pilotage, light dues, tonnage duty and dock dues). According to Dallas CJ "..*The general principle of insurance, that the insured shall, in case of a loss, recover no more than an indemnity, may be controlled by a mercantile usage clearly established to the contrary: and usage, that the loss in an open policy on freight shall be adjusted on the gross and not on the net amount of the freight, is a legal usage".* It is important to note that passage money, the money earned by carrying passengers, must be insured separately and may not be insured as freight.

Although the Act refers to "freight" in general terms, there are two types of freight which may be earned by a ship with respect to a third party, namely ordinary freight- often referred to as "bill of lading freight" and chartered freight."Ordinary freight" is the remuneration earned by a carrier, be he shipowner or charterer, for the transportation of goods belonging to another party. It is often referred to as "bill of lading freight" in order to distinguish it from chartered freight; the contract of affreightment is between the carrier and a cargo-owner and thus, is evidenced by a bill of lading rather than a charterparty. In other words, bill of lading freight is *prima facie* the shipowner's own contracted remuneration for the carriage of goods in his own ship by his own servants[1].

[1] Susan Hodges, Cases and Materials on Marine Insurance Law, p.98, 1999

Chartered freight is the remuneration paid to the shipowner by another who hires his ship or part of it, generally with an added contract that the shipowner's captain shall sign bills of lading for the charterer's benefit. However, the chartered freight which may be insured is that freight which is expected to be earned under a contract of affreightment, namely, a charterparty. But as charterparties may be in the form of either voyage or time, each must be considered separately, viz voyage chartered freight and time freight or time charter hire.

### 4.5 CONCLUSION

The importance of marine insurance is widely considered by ship and cargo owners who prefer to keep their properties insured under the relevant policies than taking the risk of losing their investments or facing to expend gigantic monies for indemnities in case of a casualty. It is important that the policies contain clear and specific terms as well as incorporate the clauses that will secure the interests of the assureds.

## CHAPTER FIVE: VALUATION OF TANKSHIPS AND BULK CARRIERS

### 5.1 INTRODUCTION

Markets are composed of diverse participants who interact in complex and usually random manners. This gives rise to volatility and unpredictability. Nowhere is this more true than in shipping where intense volatility is the rule and deals are often made under absolute secrecy and misrepresentation. Valuing vessels is a task traditionally fallen to shipbrokers who use a combination of experience and knowledge to estimate the price a vessel might achieve between a hypothetical buyer and seller. There is much art to this process and no guarantee that two brokers will form identical perceptions about the same vessel.

### 5.2 DATA FOR EVALUATION

When talking about "value" in marine insurance we mean the fair market value, defined as the sale price a vessel would be expected to achieve in a transaction between a

willing buyer and a willing seller[1] under certain assumptions about the vessel's condition. The 'International Valuation Standards' define market value as "*the estimated amount for which a property (asset) should exchange on the date of valuation between a willing buyer and a willing seller in an arm's-length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion"*[2].

The market value must be an average of many transactions of similar ships and represents the objective average price that buyer and seller agree in a free environment. Concerning the accuracy it has to be underlined that the market value of ships is not a mathematical exact factor. Anyhow, the estimation is of great importance as it can lead to different figures for the same vessel at the same date of evaluation. Generally has to be said that the degree of accuracy for the estimation of the value for vessels is +/- 10%[3].

The appraisement of vessels is a difficult task which requires deep knowledge in various aspects, such as shipping technology, operational costs, regulations, charter market and sale-and-purchase market conditions[4]. The evaluation of a ship's value is essential to insurance companies for the assessment of the insured value as well as for the validation of the insured value in case of loss.

The primary source of data in what concerns vessel values is the sale and purchase market. Information can be filtered through the network of buyers, sellers and brokers, companies' press releases and news media. When a sale includes additional terms, such as a charter, this will have an associated value (positive or negative) which will confuse the market value of the vessel itself.

[1] Garfield,G,2009. Move to uncover, 'real ship values: German banks and shipping bodies are working on a new way to assess vessel values, Tradewinds, 27 Feb
[2] Definitions of International Valuation Standards Committee, 2000, p.96,(Online), 1 July, Available at http://www.romacor.ro/legislatie/07-ivsl.pdf
[3] Holst, B., Bewertung von Schiffen, in: Winter, H., [et al.], 2008. Grundlagen der Schiffsfinanzierung. Frankfurt School Verlag., p. 313
[4] Holst, B., Bewertung von Schiffen, in: Winter, H, 2008, Grundlagen der Schiffsfinanzierung, Frankfurt School Verlag

## 5.3 FACTORS AFFECTING SHIP VALUES

Undoubtedly, the markets of ships fulfill some of the requirements needed for well functioning markets globally. Shipbrokers operate in markets for ships and they collect relevant information and allocate it to the decision makers in the shipping industry. Trade flows fluctuate and as a consequence so do the activities in the markets for ships. The markets for ships are the market place where ship owners seek ships to fulfill their transport contracts and where asset players focus on the potential rise in ship values to enter or not the market. What is more, ships are traded in worldwide markets where agents from all over the world meet to trade. Ships thus, are traded among owners in geographically separate parts of the world.

It is commonly considered that a vessel's value can be largely explained by the following factors, namely, type, features, age, cargo capacity, freight earnings, economic and regional factors and operational expenses.

The shipping market is highly segmented. That means that vessels carrying different cargoes and different quantities of them on different routes are governed by different economical characteristics. These segments are manifested in the semi-official naming conventions (VLCC, bulk carriers etc.) applied to vessels on the basis of size, cargo and their ability to negotiate certain canals or ports. Long-term trends may be common to all types but when talking for global economic factors, issues concerning particular cargoes or routes can make short-term trends way uncorrelated and consequently each type of ship should be examined independently.

The global commercial fleet is characterized by great diversity, particularly among vessels running more specialized commerce. A vessel's special features have significant influence on its appraisal. For instance, an Aframax with coated tanks capable of accepting refined products will command a premium over an Aframax capable of accepting only crude oil. In the same way, there will be a surcharge when buying a vessel built at a reputable yard rather than at a less established builder.

The effect of age on a vessel's value is not a simple matter. A vessel's lifetime is determinate. After the time when the ship generates freight earnings comes the time

when its value is that of its scrap steel. The difference in value between a brand new vessel and a sister built the previous year is not significant, indicating low depreciation in the first year. However, the difference between the same vessels as they approach the end of their lives is normally larger and depreciation is more rapid before their values are stabilized at scrap. Design improvements as well as supply-demand differences for vessels of particular ages are some other factors that affect a ship's value.

Even within the same type of vessel, a vessel's value is not directly influenced by its cargo capacity which is typically measured in DWT for tankers and bulk carriers, TEUS for containerships and CBM for LNG and LPG ships. There is often a most favorable capacity for each type at the time of writing in chartering practices. Vessels smaller or larger than this will be less valuable per unit of capacity because they might not be capable to a full load at some port.

It is a commonly accepted principle that the vessel values are highly correlated with the prospects of freight earnings. Finding the best among the numerous published freight rates is not a simple procedure.

What is more, it is fundamental to characterize how the sale and purchase market reacts not only when freights approach their averages but also when they are unusually high or law.

The charter market has a significant influence on the evaluation of a ship. A positive charter market will increase the ship's value whereas a negative market will tend to decrease the value. The increase or decrease in charter earnings is highly correlated to the value of newly built vessels whereas between the evaluation of second hand vessels and the charter market there is no such correlation. Should a fundamental decrease in charter revenue be noted, prices for new buildings drop since owners choose not to invest into new vessels. On the other hand shipyards raise their prices once the charter market rises and the new building capacities are exhausted.

The market value of an investment, such as a vessel, is formed when agreement on price is made between seller and buyer. The price fluctuates depending on supply and demand

equilibrium and on the sentiment of the market shareholders. The sentiment is driven by various motivations. While some deal with the ship as an asset others evaluate the ship by the future cash flow it is able to generate. These motivations are of fundamental difference and lead to different results concerning the value of a ship. However, because the ships have a limited lifespan the evaluation normally includes the expected income or rate of return. Therefore, the value represents the prospect cash-flow and does not necessarily represent the initial investment[1].

The shipping economy acts independently from the economic trends. The construction period of new-buildings can be really long. Consequently, the market conditions at the time of delivery can differentiate from the expectations at the time of signing the contract. Since the prices of the vessels are dependent on the freight rate mechanism, as described by Stopford in "Maritime Economics 3rd ed."[2], second- hand vessels become very attractive as its ready availability enables the fast realization of earnings. Periods of economic prosperities and recessions take over from each other. The extents in prices cannot accurately be predicted and vary from cycle to cycle. That is why a constant observation of the market is important for a correct evaluation of vessels.

Moreover, regional factors can have significant effect on a vessel's appraisal. Even though vessels are movable, their specification for special trades and areas can put their utility into barriers. For instance, a vessel with ice class E3 might earn higher revenue when employed in the Baltic Sea rather than the Mediterranean Sea. What is more, the flexibility in the utilization of a vessel is restricted. Despite the fact that there are vessels capable of operating in different trades, the segmentation in the shipping market is such that generate sub-segmentations and different trades with different market exposures, which in turn may result in different expectations on the future revenue and therefore in a different rating of the value of a vessel.

[1] *Die Secondhand-Preise beruhen in erster Linie auf den Erwartungen, während die Neubaupreise hauptsächlich auf den Kosten für einen Neubau basieren": Holst,B., 2008. Grundlagen der Schiffsfinanzierung. Frankfurt School Verlag., p. 30

[2] Cf. Stopford, M. 2008. Maritime Economics 3rd Edition, Routledge., p. 135 ff

The operation expenses also have an impact on the evaluation of a ship. However, this impact depends on the charter market. While the effects are of lower importance when charter market is in prosperity, it is of strong interest when charter market is weak with low employment and little revenue. Vessels with high operational costs will get pushed out of the market because of their inability to operate on lower demand[1]. Operation costs can lead to less employment of the vessel and thereof to less return on the investment which in turn results in the decrease in the vessel's value.

The technical and overall condition of a ship can have negative impact on the operating expenses. Naturally, technical issues arise at a later age and therefore higher maintenance and service expenses are expected to occur. Appraisements without vessel inspection assume that the vessel is in good condition, yet vessels with an age of ten years and above should be inspected, since these vessels could have condition which might severely affect their value[2].

Different markets for ships means the situation differs among vessel types. In the new building market some suppliers specialize in building a restricted number of vessel types. Thus, there is a main difference in supply of the different ship types in the new building market which is the location of the yards and thereby the cost level for labor that is employed. Concerning the scrapping market little differentiation is noticed on different types of vessels, since all vessels are made of materials that can potentially harm the environment irrespective of their type. The second-hand markets present the clearest difference in market conditions for different ships. The differences reflect whether a vessel is suitable for more than one trade. Most tankers and bulk carriers are suitable for operating in several trades. In addition to this, the number of vessels that compete in the tanker and dry bulk markets is high, which implies more frequent transactions in the second-hand market involving these vessels.

As has been mentioned before, the expected future return from operating the vessel is the basis for ship values and thereof for determining the prices in the markets for ships.

[1] Stopford, M. 2008. Maritime Economics 3rd Edition, Taylor & Francis, 19. Dec
[2] Holst, B., Bewertung von Schiffen, in: Winter, H., [et al.], 2008. Grundlagen der Schiffsfinanzierung. Frankfurt School Verlag., p. 308

The existence of viable second-hand markets implies that ship values are quoted on a regular basis only for the types of vessels that are often traded in the market and therefore the owners of these ships get regularly updated information on the market assessment of the ships' value. What ship owners and insurance or finance institutions have to do is to assess the expectations on future income for the vessels and when it comes to older vessels to also include in the assessment an evaluation of its remaining economic life.

Strandenes analyzed term structure in ship values for tankers and bulk carriers in the 1970s. The analysis of the components of ship values indicated that for panamax bulk carriers and for medium-sized tankers the long term equilibrium freight level was more important to the values than the current spot freight rate. For large tankers the results indicated that the current spot freight rates were of great importance for the values of these ships.

Academically, several studies have examined the issues of modeling and forecasting the volatility of ship prices while others have focused on the importance of ship price volatility in the decision making of shareholders.

Derivatives contracts on ship values, known as forward ship value agreements (FOSVAS), have made their appearance in shipping markets, enabling investors to manage the asset price risk of their fleet and to invest in when market prices fall by selling those contracts. A practical alternative to these contracts is to use Forward Freight Agreement (FFA) contracts to limit instability in ship prices. The use of FFA contracts is based on the principle that the price of a vessel is equal to the discounted present value of her expected earnings.

The price formation of ships, grounds on equilibrium models which explain ship prices in terms of the relationships between a number of variables, such as order book, newbuilding deliveries, scrapping rates, freight rates and bunker prices (Beenstock and Vergottis 1989, Strandenes 1984, Tsolakis, *Cridland and Haralampides 2003*). Ship valuation also takes into account the operational flexibility in ship management

concerning the entry or exit from the markets, spot or period time chartering, lay-up or trading modes (Bendall and Stent 2003, Dixit and Pindyck 1994, Tvedt 1997).

One can refer to the price formation in the second-hand market for ships in order to determine whether ship prices are reasonably formed. In case ship prices consistently deviate from their rational values, trading measures can be applied to speculate. It is very important to understand that investors in shipping industry are interested in the rate of return that is generated by the assets they own. Therefore they measure their activity in terms of the revenue from the day-to-day operation of ships as well as from the earnings from capital appreciation in the value of the vessels.

## 5.4 ASSESSMENT OF TANKSHIPS' VALUE

In order to assess a tankship's value there are several factors, as mentioned above, that are to be taken into consideration. The tanker shipping industry combines four different but closely linked markets. Sea transport services are dealt in the freight market, new ships are ordered and built in the new building market, used ships are traded in the sale and purchase market, and old or obsolete ships are scrapped in the demolition market. Prices of these four shipping markets are determined by the interactions of buyers and sellers of the markets (Dikos and Marcus 2003).

Oil is the paramount energy source in the global economy and its pricing has profound various effects. An important element of the world oil market is the tanker industry which transfers oil from producer areas to consumer areas. Spot tanker prices are strongly influenced by the crude oil market, specifically spot prices, future contract prices and petroleum inventories ( Angela Poulakidas and Fred Joutz – exploring the link between oil prices and tanker rates). Crude oil is traded in global markets. It is subject to relative demand changes and supply disruptions in oil exporters lead to price fluctuation. There is a long history of research examining the determinants of tanker prices and their relationship with oil prices. According to Poten and Partners (2004a), a leading ship broker in New York, the main factor which have put upward pressure on the VLCC, Aframax and Suezmax market has been increased oil demand by the

developing economies. The variation of tanker rates is due to the price of oil carried and 40% is due to other factors. Some other factors that have impacted the pricing of oil and tank ships over the past few years include the strength of the US economy, the reduction of oil production due to hostilities. Kavussanos demonstrates that volatility is high during and just after periods of large external shocks to the industry such as the 1973-1974 and 1980-1981 oil crisis and the 1990 invasion of Kuwait by Iraq. He finds a positive relation between coefficients of variation and size such that freight rates for larger tankers show higher variations than for smaller size ones indicate that there is elasticity with the size of tankers. An upward shift in the demand for oil causes increased oil prices and an upward shift in the demand for tanker capacity, causing an increase in the price for tanker capacity. While the demand for most products is elastic the demand for oil is inelastic. Normally, when prices rise volume falls, but that is not the case in oil market, because demand for oil has been proved to be inelastic.

(By Xun Yao Chen - Disclosure • Oct 2, 2013 2:54 pm EDT). In the market of new-buildings the tanker orderbook represents the assessment of the industry's future. When the orderbook increases it signals that future supply and demand dynamics are favorable and that companies can generate good returns. On the other hand, when ship orderbook fails, it reflects a negative picture for the tanker industry. In what concerns scrapping, for a short-term assessment of capacity growth, investors can look towards ship scrappage activity. The rate at which companies scrap ships often reveals whether the shipping industry is facing overcapacity. However, high levels of retirement reflect continued stress within the industry more than the potential effect in reducing pricing competition.

As shipping firms provide global shipping services transporting cargoes to meet the demand for sea transport services (Kendall and Buckley 2001), demand for tankers is derived from the trade between buyers and sellers in the oil trade market. In the tanker shipping market, freight rate is an important indicator for shipping firms to conduct their business. Tanker shipping can be seen as a capital intensive industry as huge investment in ships are required (Chen and Wang 2004). If ships are invested but demand for shipping services is insufficient, lay up of ship is costly.

The demand for and supply of tanker shipping services interact with each other to determine freight rate. Due to the nature of derived, demand for sea tanker shipping services depends on the seaborne trade volume (Lun and Quaddus 2009). On the other hand, supply of shipping service is inelastic in the short run. Reduction in freight rate can be caused by the oversupply of tanker but also extra operational cost to lay up ships. On the other hand, shortage in ships leads to an increase in freight rate to motivate shipping firms for adjusting their shipping capacity.

In the tanker shipping industry, demand for new vessels reflects the need for shipping capacity. It may take one to 3 years from placing an order of a new vessel till the delivery of ship to carry cargo in the freight market. Prices of new building ships have a stabilizing effect in the tanker shipping (Dikos 2004). High freight rate indicates that shipping firms can earn higher than normal profit. When the demand for seaborne rises, high freight rate and profit level affect shipping companies to place orders for new ships. With the increase in demand for new ships, prices in the shipping building market also increase.

In the shipping market, the freight market is the main source of cash for the tanker shipping operations. The income of the freight market provides financial support to tanker shipping companies for acquiring new ships and second-hand vessels to serve the demand for shipping services. Beenstock (1985) proposed that the new building and second-hand vessels are substitutes to each other as they are same kind of assets. At the time of freight booms, the second-hand vessel market is a good option for shipping firms to adjust their shipping capacity to satisfy the demand for tanker shipping services (Goulielmos 2009). The second-hand vessel market can be categorized as an auxiliary market and the buying and selling of used ships are unlikely to alter the existing number of ships and the carrying capability in the tanker shipping market (Strandenes 2002). As the demand for second-hand ships increase during the freight booms, the second-hand vessel market is also closely linked with the freight market. At the time of high freight rate, demand for second-hand ships are high as shipping firms can deploy these ships to earn higher than normal profit. Hence, the price of second-hand ships increases during

the time of freight boom and decreases during the time of freight depression (Lun and Quaddus 2009). On the other hand, low vessel prices usually correspond with low freight rates.

Ships are bought and sold in different tanker markets. The new building market deals with new vessels while old or obsolete vessels are scrapped in demolition market. Activities of these two markets determine tanker shipping capacity to serve the seaborne trade (Strandenes 2002). With the exception of old ships that are unable to meet the safety requirements and regulations, the scrapping decision made by ship owners depends on expected financial return from scrapping the ship and the future freight rate. Knapp et al. (2008) suggested that an increase in scrap price leads to a higher chance of vessels being scrapped.

## 5.5 ASSESSMENT OF DRY BULK CARRIERS' VALUE

In 2012 more than one-third of all international seaborne trade consisted of dry bulk cargo. Without the billion tons of dry bulk cargo transported by sea, global trade and industry could not be maintained. Undoubtedly, the markets of ships fulfill some of the requirements needed for well functioning markets globally. Shipbrokers operate in markets for ships and they collect relevant information and allocate it to the decision makers in the shipping industry. Trade flows fluctuate and therefore so do the activities in the markets for ships. As a global market, ships are traded through agents from all over the world.

Dry bulk shipping is a highly volatile and cyclical industry in which earning, investment and returns on capital appear in waves. The international drybulk shipping industry is cyclical and volatile with subsequent volatility in charter rates, vessel values and industry profitability.

Kavussanos (1997) investigates the dynamics of volatility in the price of second-hand dry bulk carriers and argues that there is a positive relationship between price volatility and vessel size. Alizadeh and Nomikos (2003) examine the relationship between ship price volatility and trading activities in the sale and purchase market for dry bulk

carriers and noticed that volatility of ship prices is inversely related to trading volume in the sale and purchase market. Alizadeh (2001) and Kavussanos and Alizadeh (2002) suggest there is a direct connection between price volatility and investment returns in the dry bulk sector.

Prices are determined by the interaction of supply and demand in the market. The econometric models used ground on the principal that dry bulk carriers prices and quantity represent equilibrium by the interaction of supply and demand in dry bulk carrier market.

## 5.6 INFLUENCE OF SHIP VALUES ON HULL AND MACHINERY COVERS

The market value of ships is closely linked to the insured value under vessels' hull and machinery insurance and may significantly affect the cover. Over the years, there have been large fluctuations in the market value of ships. (Gard News is published quarterly by Gard AS, Arendal, Norway.)

The sum which the assured can recover in case a loss on a hull and machinery policy occurs normally is, in what concerns an unvalued policy, the extent of the insurable value (i.e., the market value of the ship at the commencement of the risk)[1], or, in the case of a valued policy (in which the value insured is, by agreement between the insurer and the assured, fixed at a certain amount), the value fixed by the policy[2]. In practice the vast majority of hull and machinery policies are valued policies.

Fluctuations in market value of ships may influence hull and machinery cover. Due to market fluctuations, the market value of the vessel changes significantly after the insurance enters into force. Marine Legislations, such as the Norwegian Marine Insurance Plan (NMIP), provide that both the assured and the insurer may require the assessed insurable value to be changed by giving reasonable notice. The insured value can be either too high or too low and as result may influence:

[1] Marine Insurance Act 1906, Section 16.1; Norwegian Marine Insurance Plan par. 2.2

[2] The value agreed in valued policies is referred to as "insured value" in the Marine Insurance Act 1906, while the Norwegian Marine Insurance Plan (NMIP) refers to "assessed insurable value"

– The premium, as this is calculated based on the insured value.
– The conditions for assessing the casualties of the vessel and therefore the right to claim for a constructive total loss (CTL).
– The right to recover the vessel's share of general average (GA) and salvage in full from the hull and machinery insurers.

It is obvious that if the assessed insurable value is too high, the owners will pay a premium that is too high for the risk of particular damage to the vessel (i.e., not total loss). The premium is calculated on the basis of the assessed insurable value, but the damage is compensated based on the actual cost of repairs.

The link between market value and conditions for condemnation of a ship is relevant for insurances based on the NMIP. Other conditions, such as the frequently used Institute Time Clauses (Hulls) 1.10.83 (ITCH 83) do not have such a link.** However, shipowners who base their hull and machinery insurances on the latter conditions may run into other problems, such as the right to recover the vessel's share in GA and salvage.

If the market value of the ship on which the apportionment of GA, salvage or salvage charges is based (the contributory value) is higher than the assessed insurable value, under ITCH conditions the vessel is considered to be under-insured. The clauses state that the vessel's proportion of GA or salvage is covered, but reduced in respect of any under-insurance.

## 5.7 INFLUENCE OF COST OF REPAIRS ON HULL AND MACHINERY COVERS

The main call upon hull and machinery insurance policies come from partial losses, or particular average claims, resulting from damage to vessels and their machinery suffered due to the ordinary hazards of maritime trade. Once policy cover has been determined, the crucial question is how much will the policy pay.

The insurer will be looking to see repairs carried out with all possible economy whereas the assured will want the vessel back in service as soon as possible[1].
Hull and machinery insurance is used to protect the shipowner against the total loss of his assets or his cash flow against the loss of funds necessary to pay for repairs. Almost all policies incorporate a deductible limit. In most cases the losses arising from a vessel being out of service will fall on the assured.
Section 69 of the MIA 1906 states:

Where a ship is damaged, but is not totally lost, the measure of indemnity subject to any express provision in the policy is as follows:

(1) Where the ship has been repaired the assured is entitled to the reasonable cost of repairs, less the customary deductions, but not exceeding the sum insured in respect of any one casualty.

The above Section needs to be read in conjunction with section 55 which states that "unless the policy otherwise provides, the insurer on ship or goods is not liable for any loss proximately caused by delay, although the delay be caused by a peril insured against and that "the insurer is not liable for ordinary wear and tear". According to Section 88 "where by this Act any reference is made to reasonable time, reasonable premium, or reasonable diligence, the question of what is reasonable is a question of fact".

Writing in his “Treatise on Marine Insurance”, published in 1881, the Liverpool Average Adjuster Richard Lowndes supported that the repair must be made with reasonable economy and in a judicious manner, unless indeed it be a part of the disaster that the ship has been driven into a place where economy and honesty in repairing cannot be found by the assured.

There is no doubt that every ship owner and surveyor will have their own list of ports across the world that lack economy and honesty. Truth is there seem to be practical

[1] Richard Cornah, Fellow of the Association of Average Adjusters, Reasonable cost of repairs under hull and machinery policies (2005)

limits to the ability of shipowners to ensure that repairs are effected at a reasonable price as there is no global standard. One has to consider the circumstances of each case and the specific place that the vessel happens to be. Considering the shipowner is entitled to repair his ship in the manner that a prudent man would employ if uninsured. However, others assume that any cost incurred with the intention of avoiding delay could not be recoverable from hull insurers unless compensating savings could be shown.

Looking at an expense which is agreed to form part of the reasonable cost of repairs, one must consider how much of that expense can be recovered from underwriters under the circumstances of each case. *Agenoria Steamship Co v Merchants Marine Insurance* (1903, 8 Com Cas 212) partially dealt with the cost of sending the shipowner's surveyor from the UK to Melbourne to superintend damage repairs. The Judge considered whether that would be a charge for a surveyor properly allowable in the account against the underwriters. One has to think if the circumstances were such that the underwriter ought to be charged with this expense of sending the surveyor to superintend the repairs. It is common ground that Melbourne for example is a place at which the execution of repairs is costly and troublesome but it is a large port containing several firms who can undertake such repairing work.

Prudence is relative and one has to examine in what respects an uninsured owner will be prudent. Prudence refers to carrying out repairs with appropriate economy and with regard to his company prosperity. Depending on the case, what may be reasonable under certain circumstances may be totally unreasonable under different circumstances.

Another issue under discussion in the London Insurance Market had been the allowance of airfreight on spare parts as part of the reasonable cost of repairs. On the one hand it was argued that airfreight was used only to avoid delays and hence insurers could not be liable for the extra cost of sending spare parts by air in order to avoid delay, on the other hand it was argued that any steps reasonably taken by the shipowner should be allowed as part cost of the repairs.

In *The Medina Princess* (1965, 1 Lloyd's Rep 385-524) the plaintiff owners were trying to prove that their vessel was a constructive total loss and much of the argument was about which of the costs could be allowed as part of the estimated reasonable cost of repairs in order to see whether the total cost reached or exceeded the insured value. In some cases, judges in particular circumstances can consider a charge that would be otherwise considered excessive, as part of the reasonable cost of repairs by meaning something that the owners were unable to avoid. According to some judges, Section 69 of the Act by saying "reasonable cost of repairs" means only the reasonable cost of permanent repairs and nothing else can be included such as towage, salvage, cost of discharge of cargo or even the cost of temporary repair, whereas others argue that these expenses should be allowed as this should be a question of fact in every case.

Although each case should be treated differently and under specific circumstances, every cost must be examined in the light of first principles. According to a general consensus, air freight costs for spare parts on scheduled flights are normally allowed, although, on occasion, the chartering of an aircraft gives rise to higher than usual costs. What is more, insurers have maintained that overtime and temporary repairs can only be allowed to the extent that overall savings in repair costs are achieved, for instance by reducing the number of days of dry-dock hire or permitting postponement of repairs to a cheaper location. Furthermore, if a vessel is waiting for a spare part which needs time to arrive and a temporary repair can enable her to get back in service, the cost of such temporary repair will generally be recoverable.

## 5.8 INFLUENCE OF COMMODITY VALUES ON CARGO INSURANCE

There are different types of loss that can arise depending on which the claim will be finally adjusted. In the case of a partial loss, where the subject matter insured has suffered loss or damage but it still retains some value the surveyor will agree the amount of depreciation (as a percentage of value), or the goods will be sold and a percentage depreciation will be determined by a comparison of sound market value and sale value or the goods will be repaired and the claim will be based on the charges incurred in so doing. It is always the gross proceeds that are used when calculating the

percentage depreciation that arises from a sale. The sale charges are added at the end of the claim as an extra charge.

When calculating a claim for depreciation on goods that are sold it is important to ensure that the gross proceeds that are obtained must be compared with what the goods would have been worth in sound condition at the place and on the day the sale took place. There are certain things that may need to be taken into account. The first of these is customs duty. If the goods have already been imported into the country and the sale takes place inland it is likely that the assured will have been liable for customs duty at the time of removing the goods from the port area.

The next thing to bear in mind is that certain commodities can rise or fall in value depending on demand and other market conditions. These variations in value can happen even on a daily basis. Therefore, the sound market value at the time and place of the sale may be different from the invoice value, hence the invoice value should not be used as the basis of the depreciation calculation. It follows from this that when the price of a particular commodity is high, so the value of that commodity in damaged condition will also be correspondingly higher and vice versa. Therefore it is very important to check the local market for each commodity to find out what the actual market is at a specified time.

## 5.9 CONCLUSION

Claims are affected by a plethora of factors, as the global shipping capacity is highly diversified. Tankers and bulk carriers are traded in volatile and cyclical markets and influence subsequently hull & machinery and cargo insurance. Consideration of total or partial loss is substantial, ship's value, cost of repairs and commercial interests are fundamental for the collection of claims.

## CHAPTER SIX: MAJOR CLAIMS (AND VOLATILITY) IN DRY BULK CARRIERS AND TANKSHIPS

### 6.1 INTRODUCTION

Dry bulk and tanker claims are hard to be examined as their frequency and value show important fluctuation over the years. In what concerns the cargo transferred, it has been noticed that the great majority of claims concerned grains, fertilizers and cement following whereas slurry and ore caused fewer claims. Wet damage, contamination, deterioration, delay and extra handling are the major types of claims for bulk carriers when cargo claims, personal injury, pollution and collision are between the major types of claims for tankers. During the last years, in number of claims, machine damage/ breakdown holds the first position. The second position belongs to fire , the third is shared between hull damage and collision and the last belongs to weather conditions, namely storm[1].

In terms of value, half of the total cost of the claims is found in groundings. Fire claims are the second more expensive followed in turn by hull damage, storm-weather and collision claims[2].

### 6.2 HULL & MACHINERY CLAIMS

Damage to main engine is a large issue for shipowners since it is expensive, the frequency of damage is high and the consequences may be severe. Main engine claims amounted in 1998 to about 17% of the number and 11.5% of the value of all hull and machinery claims. Medium speed engines are frequent in claims files. The average claims cost per year is five times as high for a medium speed engine than for a low speed engine. The most common types of claims for medium speed engines are in order of frequency damage to turbocharger, crankshaft/connecting rod and exhaust valves/pushrods. Nearly half of the number and cost of claims for low speed engines are damage to turbocharger. Newer engines do not produce a better result than older.

[1] Source Allianz Global Corporate & Specialty. Data based on accident years 2009-2013

[2] Source Allianz Global Corporate & Specialty. Data based on accident years 2009-2013

Machinery claims form the largest part of the H&M claims. Machinery claims are claims related to main engines, auxiliary engines, steering gears, boilers and propulsion. Boiler damage is usually the most expensive type of machinery claim. Sometimes, when only part of a machine is damaged, the assured will want to "write off" the whole machine and claim for a total loss , even though the machine could be repaired. Underwriters' role is to cover physical loss or damage only. The Institute Replacement Clause was introduced to set out clearly what underwriters are prepared to pay for when a machine can be repaired. This clause will be additional to the main clauses that cover the machine (usually ICC (A), (B) or (C) ). The most recent version of this clause provides that in the event of loss of or damage to any part or part(s) of an insured machine or other manufactured item consisting of more than one part caused by a peril insured, the sum recoverable shall not exceed the cost of replacement or repair of such part(s) plus labour for (re)fitting and carriage goods.

## 6.3 REASONS FOR MAJOR HULL AND MACHINERY CLAIMS

As already has been mentioned above bulk carriers are used to transport coal, iron ore, grain and other bulk cargoes. There are three main types of corrosive environments that are identified within a bulk carrier, namely, immersion in seawater, exposure to an enclosed atmosphere and exposure to porous media.

Corrosion and fatigue have been identified as weakening the structures of aged bulk carriers[1]. Although there can be structural failures in older vessels, the average age of the worldwide bulk carrier fleet has increased dramatically in the last decades. A reasonable understanding of fatigue and its influence on ship structural integrity has been documented[2]. In the case of mild steel exposed to seawater a summary of early experimental data and a description of the main influence variables are given by

[1] - IACS (International Association of Classification Societies). Bulk Carriers-Guidelines for Surveys. Assessment and Repair of the Hull Structure, 1994
- Lloyd's Register of Shipping, Marine Division. Bulk Carriers, 1995
- Mortensen NB. Bulk carrier safety -the view and role of an industry organisation. Proceedings of the International Conference on Design and Operation of Bulk Carriers. Royal Institution of Naval Architects, London, UK, 1998, Paper 1.

[2] Capanoglu CC. Fatigue technology assessment, strategies for fatigue avoidance in marine structures. US Department of Commerce, June 1992

Schumacher[1]. In summary, the main factors that influence the progress of corrosion of mild steel in sea water are; salinity, pH, water temperature, dissolved oxygen content, water velocity, sulphide pollution and bio-fouling. Corrosion in ship structures also proceeds in the presence of both open and enclosed atmospheric environment. According to Paik et al. the factors that influence corrosion in bulk carriers are the types of cargo and time in ballast, corrosion protection effectiveness, component location and orientation, ability to collect seawater, level of oxygen, temperature and the degree of local flexibility[2].

Most metals are thermodynamically unstable in the natural environment and have the tendency to revert to their natural ore. This instability is the driving force for corrosion. Corrosion may proceed across a surface (uniform corrosion) or at specific sites. The former is also known as general corrosion which is the most common form of corrosion occurring on bulk carriers. It is associated with the average thickness loss of a structural component and hence the overall loss of structural resistance. Corrosion rates of mild steel undergoing atmospheric, underground, or immersion exposure can vary with time either due to the development of a corrosion product layer or due to a change of exposure conditions. Hence, bulk carrier corrosion rates can be non-linear over time due to the development of a corrosion product layer or due to changes in the operational profile of a vessel.

The internal structure of a bulk carrier is exposed to a range of corrosive environments. The existence and also the influence of each environment do not remain constant throughout the normal operation of a bulk carrier. The parameters relating to the operation and design of a bulk carrier can have an influence on the corrosion rate. These parameters may be considered in two broad categories; operational and internal parameters. Concerning operational factors there are five parameters that affect the rate of corrosion. These are cargo ratio, ballast ratio, trade route, coal corrosivity and frequency of cargo changes. The cargo line is different for each cargo, hence the proportion of plating corroding due to atmospheric and porous media exposure is also

[1] Schumacher M,editor. Seawater corrosion handbook. NJ: Noyes Data Corporation, 1979
[2] Paik KP, Kim SK, Lee SK. Probabilistic corrosion rate estimation model for longitudinal strength members of bulk carriers. Ocean Eng 1998;25(10):837-60

different. As a consequence, the overall progress of corrosion for a particular vessel is a function of the time the vessel carries coal and iron ore. Also, the corrosion of ballast tank and cargo hold spaces depends on the overall time a vessel is in ballast condition. What is more, the rate of atmospheric corrosion is a function of temperature whereas the rate of ballast tank corrosion is a function of temperature, seawater salinity and oxygen concentration.

Moreover, it is possible that vessels subjected to the same operating conditions may corrode at different rates due to differences in the internal design. It is clear that the breakdown of protective paint coatings and corrosion of structural members within bulk carriers is influenced by many factors. Corrosion rate data is highly variable.

Exposure to porous cargoes, seawater, an enclosed atmospheric environment and also impact and abrasion from cargo handling equipment all contribute to deterioration.

Everyone who works with bulk carriers knows that there is no paint available on the market today that is capable of withstanding the type of physical damage inflicted in cargo holds by grabs etc. As a result of these impacts, paint is damaged or removed from the cargo holds and also from the reverse side of the steel plating, in areas such as the ballast tanks, stools and outer hull[1]. The number of coating damages varies depending upon the local conditions within the cargo hold. Factors such as coating type, cargo type and shape and cargo corrosivity will all have an influence on the extent of damage.

Other factors such as the method of loading the cargo, the sea conditions during the voyage and the quantity of water applied to the cargo are also important.

The paint damage is usually concentrated on bulkheads and hoppers on the shell bulkheads. What makes cargoes of bulk carriers “active” is that they are ionically

[1] Yanamoto N, Ikegami KA, Study on the degradation of coating and corrosion of ship's hull based on the probabilistic approach. Proceedings of the International Offshore Mechanics and Arctic Engineering Symposium (OMAE'96) vol 2.1996, p.159-66.

conducting, possess a large surface area with a significantly high moisture content or associated water and the cargoes act as good cathodes.

Active cargo corrosion occurs in a sequence of events that results in coating damage, the first stage of which occurs when the sharp cargo scratches into the coating during both loading and the voyage.

Coating problems, especially when they occur very early in the service life of a new vessel or very quickly after major hold repainting work, usually give rise to a claim against the paint supplier. Such paint damages can often be avoided by a careful choice of the coating system.

Bulk carriers are designed to carry a variety of cargoes. The distribution of cargo along the ship's length has a direct influence on the stress in the hull structure. All damages are to be reported to the ship's Master and the ship's owner and classification society must be informed.

Exceeding the permissible limits specified in the ship's approved loading manual will lead to over-stressing of the ship's structure and may result in catastrophic failure of the hull structure. Furthermore, high loading rates may cause significant overloading within a very short space of time. Moreover, asymmetric cargo and ballast distribution have an important influence on the stress in the hull structure. Other factors, such as partially filled holds and inadequate cargo weight measurement during loading can increase the stress levels in the ship's structure.

Terminal operators should be aware of the damage that their cargo handling equipment can inflict on the ship's structure. The protective coatings in cargo holds and water ballast tanks must be well maintained and survey must regularly take place at holds and deck upon completion of cargo discharge to identify any signs of physical damage, corrosion or coating damage to the ship's structure.

Among the reasons that caused plenty losses of bulk carriers over the last years is commercial pressure to reduce the number of cargo transfer passes which resulted in the use of large grabs and bulldozers to collect remained cargo causing extensive damage mainly to the inner bottom.

Age of ship, corrosion, fatigue, commercial pressure, large hatches, moisture in cargo and loading pattern are some of the reasons due to which many bulk carriers were lost.

## 6.4 MAJOR DRY BULK CARGO CLAIMS

Wet damage and contamination are considered to be the main types of claim in dry bulk industry. It is perhaps not surprisingly that hatch leakage is the most common cause of major dry bulk claims. Leakage through pipes, bilges and defects in the ship's construction has also caused claims.

Rice is a basic food for a majority of the world's population and as so consists one of the main dry bulk cargoes transported globally. Rice is categorized as short grain, medium or long grain depending on the shape and size of the grain. Rice is a sensitive product and there are many precautions that must be taken when dealing with this cargo to ensure loss prevention and minimize liability. This category of cargo is normally transported as break-bulk cargo in bags. Bagged cargo is sensitive to a number of problems, including wet damage, tearing and theft.

One of the main causes of claims that arise when dealing with rice cargoes is its moisture content. Mixing different moisture content rice can be damaging during transport as the damp rice affects not only the undamaged rice in close proximity but also other rice in the hold by increasing the overall moisture content. Many claims in West Africa arise due to wet damage of the cargo.

Loading in ports can also lead to claims rising. There have been several incidents reported in which a serious problem of short landed bags of rice have occurred when cargo is loaded, in a large number of which pre-loading surveys had not been carried out at the load port.

As a basic ingredient in the production of steel, iron ore is a commodity sensitive to changes in global economic conditions. As a global commodity the prices of iron ore typically fluctuate with changes in worldwide industrial demand. Volatility is in many ways the impetus for commercial interests to mitigate their risk. The overall volatility of metals goes through periods of relative stability followed by a high degree of fluctuations. At times, iron ore volatility moves in the same direction as the other metals but at other times moves independently. Iron ore prices tend to exhibit rather stable periods that are preceded by market turbulence and uncertainty[1].

Wheat, rice and corn are highly substitutable in the global market[2] and when aggregate stocks decline to minimal feasible levels, prices become highly sensitive to small shocks.

Last years, aggregate stocks of grains available to the global grain market stocks declined due to the imposition of new biofuels orders on markets making them sensitive to all short-run disturbances. World food prices show great amount of variation between countries, due to trade barriers, exchange rate movements, domestic price and tax policies, and transport costs. As trade barriers, tariffs and transport costs have changed, the scope of various international markets has also been redefined. Furthermore, in large or landlocked countries international prices often face varying prices. To interpret the behavior of grain market prices and identify the causes of high volatility it is crucial to understand the relation between prices and stocks[3]. An important feature of the major grains (and of most minerals) is that the marginal cost of storage per period, including physical protection, insurance and spoilage, in practice is usually positive but modest, and the assumption of constant unit costs is a generally reasonable approximation. The size of global grain stocks is usually not constrained by storage capacity. Grain

[1] Volatility in the iron ore market, Robert Biolsi, CME Group, *January 2013*
[2] Roberts M, W. Schlenker, 2009, World Supply and Demand of Food Commodity Calories , *American Journal of Agricultural Economics* , 91(5): 1235-1242
------ 2010 Identifying Supply and Demand Elasticities of Agricultural Commodities: Implications for the US Ethanol Mandate , NBER Working Paper W15921
[3] Gustafson , R.L 1958, Carryover Level for Grains: *A Method for Determining Amounts that are Optimal under Certified Conditions*, USDA Technical Bulletin 1178** Paul, A.B 1970. The Pricing of Binspace: A Contribution to the Theory of the Storage. *American Journal of Agricultural Economics* 52(1): 1-12

producers can respond to changes in relative prices of commodities by switching from one crop to another, by intensifying production or by expanding cultivated area. They can respond to changes in input prices by adjusting input mixes, changing technologies or switching to crops with different input requirements. Within-market year supply response is typically negligible. Were there no storage a bad harvest would produce no supply response as the future price would be independent of the current price. Given grain is storable, expected price is increased by a bad harvest. Large and persistent shocks to demand or supply have been very rare in grain markets. The balance between consumption, available supply and stocks is the main determinant of grain market. The major grains- wheat, rice and corn- are highly substitutable in the global market for calories. When their aggregate supply is high, a modest reduction can be tolerated with a modest increase in price by drawing on discretionary stocks. But when stocks decline to a minimum level, a similarly modest supply reduction can cause a price spike[1].

Although market participants attempt to predict future market effects, there is no guarantee when dealing with the unknown.

## 6.5 MAJOR TANKERSHIP CARGO CLAIMS

There are many different liquid oil products that are traded and shipped in bulk around the world every day such as crude oil, naphtha, gasoline/petrol, kerosene/jet fuel, diesel/gasoil, fuel oil, petrochemicals, vegetable oils, biofuels.

The quality of a material is checked at different stages during the shipment. Inspection companies draw samples of the material at each stage and carry out routine testing. A quality dispute arises when a receiver of goods claims them to be of unsatisfactory quality. Quality disputes arise because of "apparent" contamination, when the cargo received is on- specification despite reports to the contrary, when different test methods are used at the port of loading and that of discharging and when the cargo suffers from

[1] Brian D.Wright, Department of Agricultural and Resource Economics, University of California Berkeley, *The Economics of Grain Price Volatility*, January 2010

inherent instability. Quality dispute can also arise when the cargo is physically damaged on voyage or has been contaminated[1].

One of the major sources of cargo related claims in the tanker sector is cargo contamination. Contamination can occur both on board the vessel and in the lines and tanks ashore. In order to make sure the ship is suitable for the cargo there are several key points to be taken into account. It is important that all chemicals be separated by positive segregation. Not to mention the fact that some cargoes can permanently damage certain coatings and some others make coatings soft for a while during which time the range of cargoes they can tolerate is restricted. Checking systems ensure that tanks and pipelines are clean as in some cases even water can be a contaminant[2].

Most tanker owners have received cargo loss claims from cargo owners, although the cargo had been faithfully loaded , carried and discharged without any fault on the vessel's part. The majority of the claims often appear to be fraudulent.

Oil cargo claims can be subdivided into quantity, or oil shortages and quality, or deterioration of cargo. The transport contract, whether it be charter party or Bill of lading, has to include the cargo figures and specifications as a prima facie evidence of the amount and cargo condition when pumped onboard in the loading port.

In general, oil shortages are what are termed "paper" shortages. Deficiencies in measurement techniques are more often related to a shore or terminal problem than to the ship. Such shortages often occur as a result of inaccuracies in the measurement and calculation system for the quantification of the cargo. For heated cargoes, such as fuel oils, the overstatement can be very significant. There is need for standardization in the calculation procedures.

The difference between Bills of Lading figures and ship figures, the former being calculated from short tank measurements, consists another area of apparent loss. Also,

[1] Richard Minton, Scientific Investigation of Marine Claims, *Presentation 2-Oil Contamination Claims*, November 2010.
[2] P&I, *UK Club tackles tanker cargo claims*. October 2011

the complexities of the shore pipelines, whose contents also need to be taken into account, result in differences arising. Should the differences be large they must be solved before the vessel departs. Inaccuracies in the determination of the On Board Quantity (OBQ) and the Remaining On Board (ROB) quantity will affect the actual volumes loaded and discharged and as a result a claim's amount[1].

Protection against ROB claims requires both understanding and vigilance on the ship's staff. To mitigate operational pollution from tankers there have been implemented crude oil washing (COW) techniques for sludge and sediment removal which have become mandatory under MARPOL 73/78. Few terminals allow a complete COW of all cargo tanks. The extent of the COW therefore influences the amount of ROB quantities upon completion of the discharge.

Lots of claims associated with quality issues are presented as oil shortages because of the presence of water found in crude oil cargoes at the discharge port. Water in crude oil can cause aggravation to the refining process.

Oil contamination may occur in petroleum products. A contamination between two grades of crude oil would not lead to a cargo claim since for cargo contamination to arise a large cross contamination would need to take place. Contamination claims are more likely to occur in trades where it is common for a number of grades to be carried at the same time.

Contrary to the common belief, pollution is not the most frequent type of major claim, although it is the highest by value. Cargo claims are the most frequent, followed by personal injury.

Although it is the ship's responsibility to measure the cargo onboard, it is customary for various witnesses to attend this operation and in some cases make their own

[1] *Oil Cargo Losses and Problems with measurement*, 2nd edition, September 1996, An Intertanko Publication

calculations. These witnesses may be representatives from the loading terminal, the shippers and the charterers.

Ullaging is preferably carried out when the ship is on an even keel, otherwise inaccuracies may occur. A ship whether afloat, alongside a pier, at anchor or at sea is a moving platform and every slight movement will affect the accuracy of measurement. In any single tank a difference of one inch in the ullage may involve a volume of hundred barrels. The calculation of onboard quantities can be affected by remaining parts on tank floors and structures which will vary with the age of the vessel and previous cargoes carried.

What is more, the methods used to detect free water dips may lead to inaccuracies which can only be determined by proper sampling and analysis techniques. Furthermore, it is of great significance that taking temperatures of liquid in a vessel's tank can be unreliable and errors of +- 2 to 3*C are not uncommon. Hence it is important when taking temperatures that a lot of care is taken so that the thermometer is not affected by the environmental temperature after it has been removed from the oil. Also, the right positioning of the thermometer in a vessel's tank is critical because significant temperature variations can develop within the cargo tanks during the voyage. An error of 1*C in temperature produces an inaccuracy in the volume at standard temperature of about 0.1%.

When calculating cargo quantities, the ship has to rely upon data collected ashore which may contain inaccuracies and cannot always be accepted as reflecting the actual cargo loaded. This, in turn, may later have a significant effect on the calculation of weight and bottom sediment and water. Sampling is broadly used in contamination claims.

Depending on the competent court "loss allowance", or "measurement tolerance", can be accepted or rejected. Various factors including cargo density, Reid vapour pressure, cargo temperature, ambient temperature and weather conditions in general may cause a release of gasses and an increase in pressure within the cargo tanks which, in combination with the inert gas pressure, may result in loss of product.

## 6.6 OIL PRICE FLUCTUATION

Oil is one of the most important strategic energy to guarantee the development of modern industry and economy and is also an important resource which is scrambled by each interest group in the earth[1].

As a bulk commodity, which is closely linked with national economic development, the yearly consumption of oil occupies a large percentage of total consumption of global energy. Oil is characterized by uncertain supply and big price fluctuation.

The international huge oil price fluctuation has led to dramatic changes for the oil and economic security in China which consists the major oil consuming and exporting country after America[2].

To the majority of oil concerned the basic determinants of the international oil price are supply and demand[3]. It is supported that behind the international oil price fluctuation exists also the strong competition between nations which is the reason that caused the diversity and complexity of the factors[4].

Throughout the several fluctuations of international oil price in the history it has been noticed that the relation between the oil supply and demand in the international oil market is the most direct factor that affects the international oil price. From the perspective of oil supply the major factors that affect the fluctuation of oil supply are due to the limited supply capability of international oil and due to instability of oil production in OPEC.

[1] Lingyu Yan, *Analysis of the International Oil Price Fluctuations and its influencing factors*, American Journal of Industrial and Business Management, 2012,2, 39-46

[2] J.Lin, A, J. Wang, W.J.Yu and Y.Zhou, *The impacts of oil futures market mechanism on Chinese oil security*, Acta Geoscientica Sinica, Vol.5. 2010, p.693

[3] W.Du, The determinant and the future trend of international oil price, Economic Theory and Business Management, Vol.9, 2006.p.70

[4] Lingyu Yan, *Analysis of the International Oil Price Fluctuations and its Influencing Factors*, American Journal of Industrial and Business Management,2012, 2, 39-46

As a non-renewable energy, the total amount of petroleum resource is limited. OPEC, plays a predominant role in the international oil market representing about 75% of the world's proven oil reserves.

From the perspective of oil demand, the major factors that affect oil price fluctuation are the economic diversification in OPEC countries, the supply and demand fluctuation of international oil and the change of the crude oil inventories in all countries.

More specifically, the increase of oil dollars brought by high oil products contributed to enough capital owned by the OPEC countries. With the continuous promotion of the diversification the internal oil consumption in OPEC countries increased gradually and the OPEC countries turned to an important demand side in the international oil market and have an indirect impact on the trend of international oil price. Concerning the petroleum inventories one must understand that conventional inventory refers to the inventory which guarantees the world's petroleum production whereas unconventional inventory refers to the commercial one which is governed by the transnational oil companies. In the long run, oil inventories in all countries play a significant role on the fluctuation of international oil price. Normally, when the price is low, all countries increase oil inventories in order to push the oil price upward.

Contrary, they sell the oil that is kept in store when the price oil is high in order to push the oil price downward. The oil in store is often purchased in quantity when the international oil rises and that leads the international oil prices move upwards in the short term.

From the dollar exchange rate perspective it is of great importance to note that from 1974 on, oil and most of the international oil trades are invoiced, traded and delivered in dollars. Therefore, the fluctuation of the dollar exchange rate has a direct impact on the price in the petroleum industry. US dollar devaluation leads to rising international oil prices. Many experts support that dollar devaluation is the *causa proxima* of the

continuous rising of international oil price of which the dollar-euro exchange rate weakness is the major cause[1].

The trend of international oil price links with the geopolitical situation of the oil producing areas. Due to the fact that most of the reserves of oil concentrate in the oil-the so called "Heart of the world's supply" areas. Instability in these areas affect directly oil supply and consequently the international oil price.

The spot oil price in the current international oil market is directly decided by the oil price in the futures market. Therefore, price of the international oil futures affects the spot oil price in a great degree and results in the oil price being affected inevitably by the opportunistic factors of futures market[2].

Petroleum's price, is affected not only by the supply and demand but is also affected by emergencies such as climate change and other factors. Wars and political issues, social security incidents including terrorist attacks, economic security incidents, natural disasters, all are factors that would affect the determination of international oil price. Emergencies play an important role on the fluctuation of international oil price only for a short period of time. Because of the distribution of oil and gas resources, the security of the oil traffic paths, such as The Strait of Malacca, also have a short impact on the international oil price in the short run.

Production costs can also cause oil prices to rise or fall. For instance, while oil in the Middle East is relatively cheap to extract, oil in Canada is a lot more costly. Once the supply of cheap oil is exhausted, the price of oil is expected to rise under the circumstances.

[1] B.X.Ji and T.Song "Discussion of the Reasons and Response Options of the Sharply rising of International Oil Price, *Journal of Chongqing Normal University Edition of Social Sciences*, Vol.3, 2009, p.109

[2] W. L.Cheng "Quantitative Analysis of Influencing Factors of International Oil Prices", *International Petroleum Economics*, Vol.8, 2005, p.40

Monetary policy and inflation dynamics are of great significance in oil price shocks and have greatly motivated a large body of research including Hamilton (1996), Bernanke, Gertler, Watson (1997), Leduc and Sill (2004), Bodenstein, Erceg and Guerrieri (2008).

## 6.7 CONCLUSION

The factors that determine the rising of claims, both hull & machinery and cargo, are of different nature depending on the trade of the vessel. Different reasons, such as corrosion, fatigue of age, measurement methods, communication between seamen, mixture of cargoes and others, create the conditions that will result in the cargo having quality or quantity inaccuracies or in the vessel having structural issues. Fluctuation in commodities' price affects the amount that the claimant will request, as the indemnity's purpose is to bring the party who suffers a loss or damage to the position it would be in case the loss or damage had not occurred.

# CHAPTER SEVEN: SIGNIFICANCE OF FREIGHT RATE IN CLAIMS MARKET OF DRY BULK CARRIERS AND TANKERS

## 7.1 INTRODUCTION

Sea transport is a derived demand where shipping demand occurs as a result of seaborne trade. The demand determinants that affect sea transport include government and political factors, the world economy seaborne commodity trade, average haul and transport costs whereas supply determinants are fleet size and operational efficiency. The supply function reflects the quantity of shipping services by sea transport carriers that would be offered at each level of the freight rate. On the other hand the demand function shows how shippers adjust their demand requirements to changes in freight rates. The shipping cycle is a competitive process in which supply and demand interact to determine freight rates[1]. A shipping cycle starts with a shortage of ships and increases in freight rates, which in turn is followed by excessive ordering of tonnage. The delivery of new ships results to over-supply in shipping capacity. Freight market fluctuations are dictated by supply and demand imbalances and so are ship prices[2].

[1] Y.H.V Lun, K-H Lai and T.C.E Cheng, Shipping and Logistics Management, Springer 2010

[2] Eighty per cent of the monthly (ship) price change can be explained by changing spot earnings" (Clarkson S.I.W , Issue 926 July 2nd, 2010)

## 7.2 FREIGHT FLUCTUATION IN DRY BULK MARKET

Like other shipping markets, the dry bulk market, generally categorized either as major bulk (iron ore, coal, grain, bauxite/alumina and phosphate rock) or minor bulk (agricultural products, mineral cargoes, cement, forest products and steel products) has also suffered from the overcapacity and slow economy growth that have sustained low freight and charter rates. More than 280 Capesizes (Barry Rogliano Salles, 2013) were delivered in 2012 resulting in supply-side pressure on the market and therefore weak earnings.

Indicatively, in 2012, Capesize time charter rates showed general decline over the year. At the beginning of 2012 the one-year time charter rate for a $170,000 dwt vessel was around 17,562 per day but by the end of December 2012 it fell to $11,750 which was disastrous for the market. Panamax time charter rates were also exposed to falling pressure with the one-year time charter rate for a 75,000 dwt bulk carrier falling from an average of $11,100 per day at the beginning of 2012 to $7,750 per day by the end of December 2012. In 2012 the Supramax market was affected by a combination of supply-side pressure and a growth of minor bulk trade. The average one-year time charter rate per day also remained low in December 2012 compared with that of one year ago. Despite slower expansion in the Handysize fleet in 2012, compared with previous years of strong deliveries, weaker growth in minor bulk trade contributed to a further decrease in Handysize rates in 2012.

Similarly to all segments of shipping markets the continuous deterioration of the dry bulk market pressed owners to take radical measures such as scrapping, deferring the delivery of new vessels, slow steaming, idling ships and implementing fuel efficiency programs in order to diminish their costs and keep debt levels low. In the short term, market conditions are likely to remain challenging for dry bulk shipping. Thus, the strength of Chinese demand for dry bulk imports will remain a key in counterbalancing supply in the oversupplied bulk market. However, newbuilding deliveries and demolition should contribute to a more balanced dry bulk market in the future.

## 7.3 FREIGHT FLUCTUATION IN TANKERS

The tanker market, which encompasses the transportation of crude oil, refined petroleum products (clean and dirty products) and chemicals witnessed a difficult market environment in 2012[1].

That year had ups and downs for the tanker industry. The sector was affected by a combination of factors leading to overall low freight rates: weak demand, slow imports growth, a change in the structure of tanker demand, new discoveries, high oil prices and many idle vessels.

Worldscale (WS) provides average freight rates on major tanker routes for various vessel sizes in the spot market. In 2012, oversupply and low demand pressured freight rates downwards. The overall picture of the tanker freight rates has developed since the 2008 global financial crisis. During the boom, the tanker market was powerful due to the import growth from the North Atlantic and Asia. Freight levels were at that time satisfying and supply was under control. Since then, the tanker market has declined; average freight rates for most vessel sizes and routes have decreased. High oil prices, environmental pressure and technical innovation helped improve energy efficiency and reduce demand for oil products.

As a result, earnings fell downwards and some owners faced default or bankruptcy. In the long run several factors, such as oil demand, production and industry developments influence the tanker market. Changes in consumption patterns are taking place in the global oil market as energy efficiency and clean transport programs are being adopted in most OECD countries and many developing countries. United States, a major oil consumer, is predicted to become the world's largest oil producer by 2020. Furthermore, refineries are moving from the West to the East with the growth of India, Chinese and Middle Eastern refineries. Also, Arctic routes are being opened up and the Panama Canal is being widened. All these changes, combined with fleet development, will have an impact on the development of the tanker market, freight rates and volatility.

[1] Clarkson Research Services, 2013e; Barry Rogliano Sales, 2013, Danish Ship Finance, 2013)

## 7.4 SIGNIFICANCE OF FREIGHT FLUCTUATION IN HULL CLAIMS

Depending on whether the assured claims for total or partial loss the freight rate can determine the final amount of payable claim more or less respectively. The reason for that is the significance of freight rate in interested parties' decision making. Freight rates motivate ship owners to adjust their capacity in the short term and to predict savings in the long term.

Fluctuation of freight rates has a significant influence on a great variety of fields in shipping industry such as ship values and demand and supply equilibrium, and can therefore affect whether an assured will issue a claim for total or partial loss of the vessel according to his interest in employing his vessel or lay it up. The shipping industry has always been volatile and the demand for ships tends to vary depending on the trade. Thus occasionally ship operators will find that they are unable to employ their vessels profitably and take the decision to remove it from service.

Where the vessel insured is destroyed or so damaged as to cease to be a thing of the kind insured or where the assured is irretrievably deprived thereof, there is a total loss (MIA 1906, s 57(1) ). In case of an actual total loss, the measure of indemnity is calculated depending on the agreed value where a valued policy applies or on the vessel's value at the commencement of the risk of the ship including her outfit, provisions and stores for the officers and crew, money advanced for seamen's wages adventure contemplated by the policy plus the charges of insurance upon the whole (MIA 1906, s 16(1) ). It should be noticed that when considering a "ship", s 16(1) should be read in conjunction with r 15 of the Rules for Construction. It should also be borne in mind that an insurance upon "hull and machinery" is not as comprehensive a cover as that upon "ship". Hull and machinery does not include "coals and engine stores"[1].

Subject to any express provision in the policy there is a constructive total loss where the subject matter insured (ship) is reasonably abandoned on account of its actual total loss appearing to be unavoidable or because it could not be preserved from actual total loss

[1] Roddick v Indemnity Mutual Insurance Co Ltd (1895) 2 QB 380, CA

without an expenditure which would exceed its value when the expenditure had been incurred (MIA 1906, s 60(1)). There is a constructive total loss, among others in MIA, when the cost of recovering the ship would exceed their value when recovered (s.60 (2)(i)(b)).

## 7.5 CONCLUSION

Earnings in shipping industry are determined in a significant extent by freight levels. Cargoes, ship values, commercial trends and decision making are highly influenced by freight volatility mainly in the long term. The impact of freight fluctuation on claims, although indirect, is reflected in the assessment of the amount claimed especially when it comes to hull insurance, where ship values and the profitable employment of the vessel set the bases for the merits of the claim and its successfulness.

# CHAPTER EIGHT: THE ROLE OF THE POLICY TERMS AND OF APPLICABLE LAW IN A CLAIM'S OUTCOME.

## 8.1 INTRODUCTION

Maritime insurance contracts are constructed based on the principle of freedom of the parts subject to statutory or customary regulations. Therefore the terms of the policy are agreed between underwriters and assureds and they are pursuant to the relevant applicable legal framework.

The cover under the policy is provided according to the special terms and clauses of the agreement and consequently the specific content of the policy determines whether a submitted claim will succeed or not. One can easily understand the significance of the terms being accurate and expressly stated so as to mitigate interpretation matters and ambiguities that can result in the claim's failure.

## 8.2 TYPICAL CONTENT OF POLICY

A policy contains the terms and conditions that govern the cover agreement between the parts under the rules and the applicable law set out by the insurer's facility. It is quite

common for underwriters to use standard forms of policy, such as Lloyd's SG policy form, where they can add clauses according to the specific conditions of the agreement. The conclusion of a contract in writing is prerequisite for the existence of marine insurance, not in terms of its validity but due to the fact that it is required in case it is to be used as evidence of it in court. Thus the issuance of the policy is compulsory for the insurer. It must have a minimum content and have attached its printed general and special terms, binding for the insurer[1]. The contract should contain the details (name, residence) of the assured, the details of the insurer who undertakes to indemnify the assured in case of loss, description of the subject matter insured, the risks covered, the period of validity of the insurance cover, the amount recovered and any relevant limits, the premium to the underwriters and any specific conditions or warranties agreed between the parties. It is common, interim insurance contracts be concluded in the form of cover notes which are valid for the period between the agreement on coverage and the signing of the policy[2].

Depending on the subject matter insured and the provided cover different clauses are agreed and both insurer and assured carefully contemplate the contract in order to proceed when a claim arises. To avoid ambiguity and misinterpretation, the parts have to expressly state their intentions especially in the case of warranties breach of which can discharge insurers from liability to cover. The treatment of the terms of a marine policy though can be strongly affected by the applicable law of the agreement which may have a strict or smooth approach to their reading and consequently influence the result of a claim issuance.

## 8.3 APPLICABLE LAW AND CONTRACTUAL TERMS - FORUM SELECTION

The law that will govern the insurance agreement, in case that disputes or any legal procedures arise, will generally be stated in the contract. When a claim is submitted, the legal framework of the insurance will determine the respective courts and the regulations under which judges will decide on the claim submitted.

[1] Kyriaki Noussia, *The Principle of Indemnity in Marine Insurance Contracts: A comparative approach*, p.45, 2007

[2] Campbell D (2001) *International Insurance Law and Regulation*, Vol. I, Oceana Publications, Section GRE, 6p.

The applicable law is generally expressly stated in the charterparty or any other contract of affreightment or document of carriage, such as bill of lading, but also in the policy that governs the relationship between the assured and the insurer. Different laws provide different treatment of the cases. Some laws are considered to have a rather "strict" approach when designating on claims requirements and therefore judges are rather severe and absolute when ruling on lawsuits, whereas others are deemed to be smooth and hence convenient for claimants.

Notwithstanding the freedom of contracts and the consequent choosing of agreed terms by the parties there are procedural issues that are constructed by the applicable law and that being so affect determinant aspects of the claim such as validity, defense rights, supporting documents and others. Therefore, depending on the factual conditions of the claim and the requirements set by the applicable law, the outcome of a claim lawsuit can be negative or positive and the measure of indemnity can amount to higher or lower figures. Time bars for example may differ according to the legal provisions and consequently determine whether a claim will be discussed further or not resulting in being rejected. Not surprisingly, it is a common practice for insurers to issue policies that include choice-of-law clauses. Choice of law is a procedural stage in the litigation of a maritime case where the parts require the courts to apply the law of a different jurisdiction in lawsuits as they serve their interests better than other laws. The choice of law rules for contracts, such as marine policies, are more complicated than the law affecting other obligations because they depend on the express or implied intentions of the parties and their personal circumstances. Generally, the parties select the law in the hope of evading the operation of some mandatory provisions in another relevant law. That is why in the event of a claim occurring the parties may negotiate which law will govern their dispute according to the one alleged to be more profitable.

Specialists involved in maritime claims industry often use comparative methods to examine the different approach of different laws against the same claim case, whether it be typical preconditions or the substantive points of a valid claim.

Depending on the nature of the claim, the parties involved may be entitled to develop legal procedures governed directly by jurisdiction of the coastal state. In that case, the party who suffers default may have the chance to recover his loss or issue any kind of claim that will satisfy his interest, being probably deprived of such a right had it called some other port.

The parties to a maritime contract have various options when trying to resolve a dispute[1]. Apart from selecting the law that they wish to apply to their dispute, they can also select the place for their litigation. When a matter is litigated, the parties cannot select their judge; judges are assigned by the court clerk randomly. Accordingly, the judge making rulings in the case may have no experience with maritime law or the maritime industry, which, in turn, may lead to an unsatisfactory result and the cost and delay associated with an appeal. An equally unsatisfactory result may occur if the matter is tried to a jury, a group of diverse community members who also are unlikely to have knowledge of maritime law or experience in the maritime industry. Years may elapse before a dispute is finally brought to trial and taken through appeal. Those years translate into significant fees and costs.

Litigation involves the presentation of percipient and expert witnesses either for deposition and/or trial. They may not be located in the place where the litigation is pending. Their personal appearance at deposition and/or trial may involve significant cost and disruption of business. Moreover, by the time a deposition is taken or the case is actually tried, the witnesses may no longer be available to testify, making it difficult to prove or disprove a point.

As mentioned above, the parties have the option of agreeing on the geographic location for dispute resolution, even if that location has no relationship to the dispute[2]. The clause in a maritime contract designating the place for dispute resolution is called a "forum selection clause." A forum selection clause might designate a particular country,

[1] Marilin Raia, *"Resolving Maritime Disputes"*, Pacific Maritime Magazine, January 2010
[2] Marilin Raia, "*Forum selection clauses in Maritime Contracts*", Pacific Maritime Magazine, January 2011

state or court as the forum. It might also refer to the designated forum in more general terms such as the origin port or the destination port.

The parties to a maritime contract are not required to specify a forum for dispute resolution. If they do not specify a place, a court will consider alternatives including the place where the contract was made, or where the breaching party is located, or where the contract was to be performed.
A marine insurance policy is also a maritime contract in which a forum selection clause may be found and enforced.

Forum selection clauses have been incorporated in a wide variety of maritime contracts. Before negotiating a forum selection clause in a maritime contract, various factors must be taken into consideration such as the convenience of the chosen forum to the parties. A court's subpoena power does not extend across state or country borders. Accordingly, the ability to raise a claim can be severely compromised when witnesses and evidence cannot be compelled into the chosen forum.

The party facing an unfavorable forum selection clause in a non-negotiated contract may have little choice. It can accept the potential need to litigate in an undesirable or inconvenient place as a condition of doing business with a company or not do business with that company because the forum selection clause is likely to be enforced. These contracts are known as "take it or leave it" contracts and are found in most commercial agreements.

## 8.4 ENFORCEMENT OF MARITIME CLAIMS; MARITIME LIENS AND CONFLICT OF LAWS

A very common traditional maritime secured right is maritime lien. In order to understand conflicts of law in maritime liens and related maritime claims, a comparison has to take place between the competing national laws. In England and Commonwealth countries, the term "maritime lien" applies only to a select group of maritime claims, namely seamen's wages, master's wages, master's disbursements, salvage, damage (caused by the ship), bottomry and respondentia. These are known as "traditional maritime liens". Other maritime claims resulting from services supplied to the ship or

damages done by the ship (e.g. bunkers, supplies, repairs, and towage), as well as claims for cargo damage, for breaches of charterparty and for contributions of the ship in general average, do not give rise to "traditional maritime liens" in the U.K. and Commonwealth countries, but only to "statutory rights in rem[1]".

In the United States and civil law jurisdictions (e.g. France), however, claims for necessaries, cargo damage and general average, among others, are granted full status as maritime liens by the relevant national legislation[2] and/or by international conventions binding those States, thus resulting in conflict of laws when such claims are asserted in maritime proceedings before United Kingdom and Commonwealth courts, where they have no maritime lien status according to the *lex fori*.

Few other categories of maritime claims can also become examples of the differences of claims development coming before different national legal frameworks. "Special legislative rights" consist a category of claim arising under modern national statutes, particularly with respect to harbor and dock dues, wreck removal and pollution[3]. In other cases, the statutes provide expressly for certain claims to be secured by a maritime

[1] Tetley, Int'l Conflict, 1994 at p. 539; Tetley, M. L. & C., 2 Ed., 1998 at pp. 445-446 (general average contributions); pp. 555-562 (necessaries - U.K.) and pp. 577-578 (necessaries - Canada), p. 646 (repairs - U.K.) and p. 652-654 (repairs - Canada); pp. 703-708 (towage); pp. 732 and 739 (cargo damage), p. 732 (breach of charterparty)

[2] Necessaries claims are secured by a maritime lien in U.S. maritime law, by virtue of the Commercial Instruments and Maritime Liens Act, 46 U.S.C. 31301 et seq., at sect. 31301(4) and 31342(a). Where they arise before the filing of a "preferred ship mortgage" on the vessel in question, claims for necessaries constitute "preferred maritime liens" by virtue of 46 U.S.C. 31301(5)(A) and as such outrank the preferred ship mortgage by virtue of 46 U.S.C. 31326(b)(1). Cargo damage gives rise to a "preferred maritime lien" under 46 U.S.C. 31301(5)(B) ("damage arising out of maritime tort"). General average claims are secured by a preferred maritime lien by 46 U.S.C. 31305(E). For necessaries claims in France, see Law No. 67-5 of January 3, 1967, art. 31(6). Note, however, that in France, in order to give rise to a "privilège maritime" (maritime lien), necessaries must be ordered by the master, within the scope of his authority, while the vessel is away from its home port, and for the purpose of preserving the ship or continuing the voyage. A maritime lien for cargo damage are granted by art. 31(5), and a lien for general average by art. 31(4).

[3] For examples of "special legislative rights", see Tetley, M. L. & C., 2 Ed., 1998, chap. 2 ("Special Legislative Rights"), chap. 3 ("Dock, Harbour and Canal Charges"), chap. 4 ("Wreck Removal") and Chap. 5 ("Pollution"). Another type of "special legislative right" is the right of governments to confiscate vessels, which is a penal sanction frequently imposed for the violation of national laws on subjects such as narcotics trafficking, fisheries, customs, immigration, piracy and arms trading. See Tetley, ibid., chap. 6 ("Forfeiture for Drug and Related Offences"). 25 The Maritime Liens and Mortgages

lien with a very high priority. Such rights normally have a higher rank than the costs of arresting and selling the ship, as well as the "traditional" maritime liens and they are also sanctioned by international conventions on maritime liens and mortgages.

In France, such law costs (frais de justice), as well as the costs of the judicial sale and the distribution of the proceeds, and the costs of maintenance of the vessel under seizure (custodia legis), are treated as conferring a privilège maritime (maritime lien) superior to other maritime liens enumerated in Law No. 67-5*. In the U.K., Canada and the U.S., on the other hand, costs of arrest and sale and expenses in custodia legis do not constitute "traditional" maritime liens, but are understood as a separate class of maritime claim, outranking such liens.

A maritime lien applies attaches on the ship in connection with which the claim arose and cannot be extinguished until a court sale. It follows the vessel even into the hands of a bona fide purchaser for value.

Under English law claims that attract maritime liens are: the damage lien, the salvage lien and crews accrued wages, master's wages and disbursements. There are however other maritime claims which are assigned the status of a maritime lien by the law of the country in which they arose or the contract was made. As a ship moves from one jurisdiction to another, the priority of a mortgage may be affected. This raises a conflict of laws problem when the court has to determine the validity of the foreign lien.

For the purpose of priorities a very important question is whether or not the recognition of a maritime lien should be decided by applying the law of the state where the claim arose (lex causae) or the law of the forum deciding the matter of priorities (lex fori). If the maritime lien is regarded as a substantive right by lex causae then it should be enforceable in another jurisdiction where the claims are being prosecuted. On the other hand if it is a mere procedural remedy then its enforcement will depend on the procedure of the forum of the court.

The enforcement of maritime claims consists an overarching theme in shipping industry[1]. The arrest of ships is a typical jurisdictional action in international maritime litigation. In the modern global economy maritime commerce plays an important role in facilitating international trading. Ships are high value assets over which extensive debts can arise. In this context, the arrest of ships has become the main mechanism of protection and security in the enforcement of maritime claims[2].

In shipping litigation conflict of laws and conflict of jurisdictions are likely to arise.. The arrest of ships as an institution used in civil and commercial matters does not have an exact equivalent in every legal system yet most countries provide for the arrest of ships. The International Arrest Conventions have attempted to harmonize the law in this field. However, the success of the Convention in finding equivalent implementation is still partial and what is more there are different interpretations of the International Arrest Conventions in the State parties. International Conventions coexist with national law and regional law together with the ever growing significance of the *lex mercatoria*, the law of the merchants.

The application of such different sources of law is unwieldy and private international law comes into play to offer different alternatives to the applicable law issues and to the conflict of jurisdictions aimed ultimately at the juridical continuity of legal relations across national borders[3].

The arrest of ships in international commercial litigation is deemed to be a truly private international law institution. In practice, the possibility to arrest a ship in an appropriate jurisdiction is of great importance to the international shipping and trading community. Arrest and jurisdiction are linked but not necessarily in the same way in different legal systems. The strongest link between arrest and jurisdiction is *forum arresti* which

[1] See the authoritative work of DC Jackson, Enforcement of Maritime Claims (London, LLP,1985; 2nd edition 1996;3rd edition 2000;4th edition 2005) Jackson refers to the tripartite nature of maritime claims, ie the interim or provisional remedy aspect, the jurisdictional aspect and the security aspect.

[2] Veronica Ruiz Abou-Nigm, *The Arrest of Ships in Private International Law*, Oxford Private International Law Series, 2011

[3] See R Herbert in D Opertti Badan et al, Objeto y Metodo en el Derecho Internacional Privado, 2nd edition, Montevideo, Fundacion de Cultura Universitaria (FCU), 1990, 93-118

constitutes a general trend in international procedural maritime law. *Forum arresti* based on arresting of the ship as a jurisdictional basis does not jeopardize the balance between the parties or favor the party particularly linked with the forum.

Although the exclusive *lex fori* approach has some supporters[1], it is also considered to be deeply defective for many reasons[2]. A simplistic, general reliance on the procedure dichotomy in conflict of laws theory does not provide a convincing justification for applying the lex fori to all jurisdictional issues. The current trend in private international law in Anglo-common law countries is to treat both rights to sue and remedies as substantive, to be governed by the lex causae as indicated by the forum's rules[3].

The jurisdiction of registry may not always be able to control its vessels but will have the power to approve or veto changes to vessel's registration and is unlikely to recognize or register any purported transfers of ownership that do not meet its criteria. Also, the courts and authorities in the state of registry may not be willing to recognize the validity of a foreign judicial sale following an action in rem brought contrary to the state of registry's notions of ownership. Applying the law of the port of registry is not without difficulties.

Matters of procedure are governed by the *lex fori*, as the domestic law of the county where legal proceedings are taken. On the other hand, matters of substance are governed by the law to which the court is directed by its choice of law rule. There is no standard international approach to the problem of recognition and enforcement of maritime liens granted by foreign law to a vessel before it leaves the jurisdiction of the law where such liens were created. Thus, different jurisdictions may attach different legal consequences to the same type of claim in terms of recognition and enforcement.

Choice of law is different to the choice of jurisdiction, and the contract may expressly select different law and jurisdiction, or a different jurisdiction may be determined by

[1] K.S.Toh , *Admiralty Law and Practice*, Butterworths Asia, Singapore 1998, pp 107-8.111
[2] Martin Davies, *Jurisdiction and Forum Selection in International Maritime Law Essays in honor of Robert Force,* Kluer Law International 2005
[3] E.Crawford. "The Adjective and the Noun":Title and Right to Sue in International Private Law (2000), Juridical Review 347.354-355

statute or international convention. The selection of choice of law and choice of jurisdiction clauses is more important than an after-thought, pro forma usage, or cut and paste, as the subject matter of commercial contracts regularly expands beyond domestic intra-state activities and into inter-state and international trade and commerce. The selection of law and jurisdiction affects the governing law, forum, practice and procedural rules, operation of Alternative Dispute Resolution (ADR) clauses and most importantly, enforcement[1].

Choice of law can determine the validity and enforceability of the contract [2] and its terms[3] and the extent of the rights and obligations which are not expressly set out[4]. Further, the contract is unenforceable if it is illegal under the proper law or if it is illegal under the law of the forum[5].

The relevant classification in international trade is first of all any relevant statute or international convention, secondly the express choice of law in the contract and thirdly any implied intention. A statute or international convention can also determine the proper law of the contract, and override an express choice of law in the contract. There are a number of statutes concerning international transactions which determine the proper law of the contract.

The parties can expressly state that their contract is governed by a nominated law, or that different obligations are governed by different laws, although this is not determinative, as statute may render the choice void. The general rule is that the governing law of a contract is the law which the parties have chosen, but a conflict may arise where the proper law is determined by the rules of the forum.

[1] John Levingston, "*Choice of law, jurisdiction and ADR clauses"*, 6th annual Contract Law Conference 26-28 February 2008
[2] Saxby v Fulton [1909] 2 KB 208.
[3] Re Missouri Steamship Co (1889) 42 Ch D 321 (CA).
[4] 'August' [1891] P 328
[5] Boissevain v Weil [1950] AC 327

## 8.5 DOMESTIC AND INTERNATIONAL ARBITRATION

Alternative dispute resolution provides parties with a private and confidential means of resolving disputes away from public hearings. Arbitration clauses have been an important part of international trade and commerce for a long time, as they have enabled the parties to decide the place and rules for resolving their disputes outside courts. Law and jurisdiction clauses must be considered together with whether the subject matter concerns a domestic or international contract. However, this may also be subject to the rules of court in the selected jurisdiction.

In many circumstances, national law permits parties to agree upon the arbitral procedures that will govern the resolution of their dispute. As a consequence, the procedural conduct of arbitrations can vary dramatically depending on arbitral institutions, geographic regions, and categories of disputes. Arbitration involves the submission of written pleadings and legal arguments, the presentation of documentary evidence and oral testimony, the application of the relevant law and the outturn of a reasoned award. Arbitration lacks formal characteristics that are common in litigation.
International commercial arbitration is similar to domestic arbitration. As it is in domestic matters, international arbitration is a mutual means of dispute resolution, by a non-governmental decision-maker, that produces a binding and enforceable ruling. However, international arbitration has several characteristics that distinguish it from domestic arbitration. Most importantly, international arbitration is designed to assure parties from different jurisdictions that their disputes will be resolved neutrally. The parties seek an independent decision-maker who will not be connected to the courts, governmental institutions or in any way to either party. Claimants also seek for arbitrator's application of internationally neutral procedural rules, instead of a particular national legal regime.

International arbitration is frequently regarded as a means of mitigating uncertainty of litigation through a single mechanism for settling the parties' disagreements. Moreover, international arbitration awards are often better enforceable in jurisdictions other than their place of origin than national court judgments.

International arbitration has binding effect only through a complex framework of national and international law. International conventions, national arbitration legislation, and institutional arbitration rules provide a legal system for most international arbitrations. This system seeks to isolate the arbitral process from interference by national courts or other governmental authorities.

The popularity of arbitration as a means for resolving international commercial disputes has increased tremendously over the past decades. This popularity reflects important advantages provided by international arbitration as a means of resolving international commercial disputes. Of course, International arbitration has also disadvantages which can be reflected into the final arbitral awards and the succeeded or not claimed amounts. International disputes inevitably involve the risk of litigation before a national court of one of the parties, which may be discriminate against that party or unattractive for some other reason. Moreover, apart from a limited number of industrialized nations, local court systems lack the competence and experience to resolve satisfactorily many international commercial disputes.

Arbitration agreements and arbitral awards are generally better enforced in foreign states than forum selection clauses or foreign court judgments. The United Nations Convention on Recognition and Enforcement of Foreign Arbitral Awards (known as the "New York Convention"), which has been ratified by more than 120 nations, obliges member states to recognize and enforce international commercial arbitration agreements and awards. In contrast, there are no worldwide covenants relating to either forum selection agreements or judicial judgments.

In some developing and other countries, there has been a perception that international commercial arbitration was developed by Western commercial interests. As a consequence, national law in many countries was historically hostile towards international arbitration. In some states, this remains the case today. Hostile national law can therefore still pose significant obstacles to the effective enforcement of international arbitration agreements and awards.

Parties frequently agree to arbitration to avoid the jurisdictional and choice of law uncertainties that arise when international disputes are litigated in national courts. The unpredictable choice of law plays an important role in international commercial arbitration and can be determinant for the outcome of a claim. Four separate choices of law issues can arise in connection with an international arbitration:

1. The substantive law governing the merits of the parties' underlying the contract.
2. The substantive law governing the parties' arbitration agreement.
3. The procedural law applicable to the arbitration proceedings (known as "lex arbitri").
4. The conflict of law rules applicable to select each of the foregoing laws.

Although not common, it is possible for each of these four issues to be governed by a different national (or other) law.

Each of these choices of law can have a vital influence on international arbitral proceedings. Different national laws sometimes provide different rules applicable during the arbitral process. Understanding which national rules will be applicable can therefore be critical. In the first instance, it will usually be the arbitrators who determine the law applicable to the parties' dispute. The principal exception is where mandatory national laws or public policies purport to override private contractual arrangements.

Where the parties have not agreed on the substantive law governing their dispute, the arbitral tribunal must select such law. In so doing, the tribunal will usually refer to some set of national conflict of laws rules. There is also authority supporting an arbitral tribunal's "direct" application of substantive rules of law, without prior recourse to any set of conflict of laws rules.

Arbitration agreements are regarded as "separable" from the underlying contract in which they appear. One consequence of this is that the parties' arbitration agreement may be governed by a different national law than the one that is applicable to the contract. This can occur either by the parties' express choice of law or by the application of conflict of laws rules.

Among other things, the procedural law applicable to an arbitration typically deals with such issues as the appointment and qualifications of arbitrators, the qualifications and professional responsibilities of parties' legal representatives, the extent of judicial intervention, the conduct of the arbitration and the form of any award. Different national laws take significantly different approaches to these various issues. In some countries, national law imposes significant limits or requirements on the conduct of the arbitration. In developed jurisdictions, local law permits international arbitrators to conduct freely the arbitral process, subject only to basic requirements of procedural rules.

In most cases, the procedural law applicable to the arbitral proceedings will be the law of the arbitral *situs*, the place where the parties have agreed that the arbitration will be seated and that arbitral hearings are conducted. Parties however have the power to agree on a different applicable procedural law than that of the arbitral *situs*, although not common in practice. As different states have different rules of substantive law, they also have different conflict of laws rules. An international arbitral tribunal must from the very beginning decide what set of conflicts rules to apply. The actual practice of arbitral tribunals in selecting the law applicable to each of the foregoing issues varies significantly[1].

Finally, the location of the arbitral *situs* can directly or indirectly affect the identity of the arbitrator, unless parties have agreed otherwise. Local procedural rules and practices may influence the tribunal's procedural decisions, and local conflicts rules may be applied with respect to choice of law issues. Parties may enter into agreements that are ambiguous or contradictory as to the *situs* of the arbitration which will make the settlement impossible. Alternatively, even where an agreement as to arbitral *situs* exists, one party may regret its decision and seek to arbitrate in a different place.

[1] Shrikant Pareshnath Hathi (Dr) and Binita Hathi (Ms), Partners, Brus Chambers, Advocates & Solicitors, eighth edition (2014)

## 8.6 HUMAN FACTOR AND DOCUMENTS

Claims under marine policies have to be supported by certain documents which vary according to the type of loss as also the circumstances of the claim and the mode of carriage. Documents needed for the settlement of both marine hull insurance claims and cargo insurance claims are issued by humans coming from different backgrounds and different duties and responsibilities in shipping industry. The content of the documents that they sign is of great significance to the final measure of indemnity of claims as they undertake to present factual circumstances, professional assessments or expert's opinions that are presumed to be valid and that will play a fundamental role in the development of an alleged claim.

During the maritime adventure, a number of documents are issued describing the whole operation of the vessel and the essential characteristics of the cargo- mainly quantity and quality- not only as Logs but also as evidence in case any claims arise. The Master of the ship, the agents, the surveyors and sometimes the port authorities or the adjusters, are some of the most important participants in a claims procedure.

When it comes to settle a cargo insurance claim, key documents required, when applicable, are the bill of lading, stores receipt note, packing list, shortage/damage certificate, survey report, Letter of Undertaking, Discharge voucher and in general all cargo documents that reveal the situation of the cargo (temperature, pressure, quality, quantity).

In the case of hull insurance claims, statement of facts, notice of readiness, engine and deck Logbooks, Registry certificate, crew list with details of competency certificates, survey reports and in general all ship documents that will present hull and machinery function and will help establishing any vessel's liability.

All these documents consist narrative of the ship's operation and of the whole marine adventure but also consist evidential elements in case of disputes that may need to be litigated.

In order for cargo and ship documents to affect claims development, they have to be accurate and valid. Depending on what the persons in charge submit and sign, as they are deemed to be official statements, the proceeding of a claim may end up successful or not. The trueness and accuracy of the statements are determinant for the development of a claim and all persons involved need to treat the documents with utmost honesty and sincerity, away from commercial or other interests.

Bill of lading is one of the most important documents in the shipping process which acts as a receipt and a contract in order to ship any goods. The information in the bill of lading is critical as it directs the actions of personnel all along the route of the shipment - where it's going, the piece count, how it's billed, and how it's to be handled on the dock and trailers. Any willful omission may result in monetary loss for the liable party. When signing a bill of lading, the Master or the person authorized to do so, has to be really careful and avoid signing untrue statements such as "clean bill of lading" when cargo received is not in good condition with proper packing.

Similarly, when issuing a statement of facts or a deck or engine logbook, the Master is obliged to present the exact conditions and sequence of events in order to secure that no vagueness or fraudulent misrepresentation exists. The proper keeping of ship's logs will contribute to the right decision on a claim's dispute, especially when it comes to hull & machinery or cargo claims, being the records of what actually led to the incident. The bridge is one of the places on board where captain's records must be kept in an extremely high standard. It is important to make sure that all records are kept onboard up-to-date, if only because in case of making a claim it will be easier to provide the evidence needed to prove compliance with the terms of an insurance policy, depending of course on the nature of the assured's obligations as set out in the specific policy. In most cases, the crew will be responsible for maintaining the on-board records up-to-date, Crew members have a much more significant role in claims process than it may be considered[1].

[1] Kevin Cooper, Ince & Co Partner

Surveyors also hold a significant position in maritime claims industry as their expertise and report are used as a basis to substantiate the validity of a claim or counterclaim. It is generally accepted that performing a draft survey is not an exact science. Much depends on the weather conditions at the time, the swell, the accuracy of the draft marks and the care which is taken in carrying out the required calculations. Nevertheless, the accuracy of a draft survey which has been properly performed is generally regarded as being up to more or less 0.5 per cent of the final figure.

Therefore, except for exceptional circumstances, if the difference between the shore figure and the draft survey figure is greater than 0.5 per cent, it may well represent a physical gain or loss, rather than being simply a "paper" difference. The latter is of course just that – a difference on paper only. Such a difference is usually the result of the inaccuracies inherent in the different measurement methods which are used. A draft survey is the only means for those on board to check the shipper's figure. The latter will almost certainly be based on unilateral measurements carried out ashore. The Master will have had no means of checking these measurements. For various reasons, the shipper's figure may not be accurate and if the draft survey gives a figure which is more than 0.5 per cent below the shipper's figure, the Mate's receipt and bill of lading should reflect the fact that there is probably a physical shortage of cargo. The clause should clearly state the draft survey figures and should be as accurate as possible.

There are of course a number of practical problems which can arise. It may have been agreed that the bills of lading will be issued and signed by the local agent, who will often be acting on behalf of the charterer. The charterer may also be the shipper himself or connected to the shipper in one way or another.

The shipper will invoice the consignee on the basis of the weight or quantity stated in the bill of lading. Nevertheless, the bill of lading is likely to be signed and constructed in such a way that it evidences a contract of carriage with the shipowner, not the charterer. In these circumstances, it can be difficult for a Master to ensure that the bill of lading is issued appropriately. What he can do is to make sure that his Letter of Authority to the agents specifically states that the bills of lading are to be signed strictly

in accordance with the Mate's receipts and to ensure that the Mate's receipts are properly worded and where appropriate, contain the ship's figures as calculated by draft survey.

It is important that both steps outlined above should be taken. One by itself is not sufficient as they should mean that, if the shipowner incurs liability to the consignee because of the failure by the charterer or his agent to issue and/or sign a bill of lading on the authorised form, the shipowner has a good chance of succeeding with a claim for indemnity against the charterer under the charterparty. Factual evidence is a vital factor in the defense of any claim. The absence of draft survey reports will mean that there is no independent evidence which the shipowner can use to try to show that the weight or quantity stated in the bill of lading was wrong and that, by comparing the figures shown in the draft survey reports, the vessel delivered approximately the same cargo quantity as was received on loading.

Maritime casualties can occur in a very wide variety of geographical conditions and can be subject to the jurisdiction and control of many different nations and their legal, judicial and administrative institutions. A first priority must, therefore, be to have access to a global network of well qualified local correspondents. In addition, the need to understand local law and deal with local authorities means that it is sometimes necessary to employ a competent and experienced local lawyer. Other forms of expertise can become important as the claims' handling develops. Issues relating to navigation, weather, fire might be crucial to defending or pursuing a claim by or against a third party and advanced technical expertise is often needed in connection with vessel repairs. Collisions between vessels and port facilities often generate significant claims for business interruption. Without accountancy skills and detailed knowledge of the nature of the business involved, it can be very difficult to understand the complicated reports and documentation that are submitted to support such claims[1] .

[1] "*How does your claim leader create value*", Gard , July 2014

## 8.7 CONCLUSION

The purpose of all claims handling is to ensure that claims are compensated at the right level and paid in a timely fashion. The content of a policy can be of significant contribution to the successful outcome of a claim. Terms need to be clearly stated and agreed in order to avoid ambiguous issues. Whenever a claim in not amicably settled, applicable law and jurisdiction will be responsible to sort out the dispute.

Different laws may have different approach against the same claim. Litigation can also be the choice of the parties in absence of which factors with relationship to the dispute will determine the place of the resolution. Depending on the applicable law and place of jurisdiction, the enforcement of maritime claims may vary and parties will seek for the most profitable to their interests. Alternative dispute resolution, domestic or international, is being preferred in international commerce as they provide resolution outside courts. Choice of arbitral law as well as the arbitral situs are vital for the claims' procedure. The process of a claim dispute depends, in a significant extent, on the evidential documents submitted by the parties. The accuracy of the documents and the humans involved in their issuance consist factors that can have determinant impact on the measure of indemnity claimed and the final amount validated by the court or by the arbitral tribunal.

# CHAPTER NINE: CASES ANALYSIS

## 9.1 INTRODUCTION

Theory of marine insurance claims can be successfully acknowledged through implementation in practice. "Brillante Virtuoso" and "North Star" are two indicative cases of how the measure of indemnity is decided in case of a casualty in tankers and bulkers respectively. Summaries of these cases follow in an attempt to highlight the basic stages examined in order to assess the case and reach a decision on the amount of the relevant claim under the circumstances.

## 9.2 CASE ONE: “BRILLANTE VIRTUOSO”

*The vessel Brilliante Virtuoso was a Greek-owned Suezmax tanker, insured by the owners, for the sum of US$55 million under a valued war risks policy which incorporated the Institute War and Strikes Clauses – Hulls – Time (1.10.83). The insured perils included loss or damage caused by, amongst other things, piracy. The policy also contained a suing and laboring clause. The policy provided that the measure of indemnity in respect of claims for unrepaired damage shall be the reasonable depreciation in the market value of the Vessel at the time this insurance terminates arising from such unrepaired damage, but not exceeding the reasonable cost of repairs. Concerning constructive loss it was provided that in ascertaining whether the Vessel is a constructive total loss, the insured value shall be taken as the repaired value and nothing in respect of the damaged or break-up value of the Vessel or wreck shall be taken into account and also that no claim for constructive total loss based upon the cost of recovery and/or repair of the Vessel shall be recoverable hereunder unless such cost would exceed the insured value.*

*In early July 2011 the vessel was en route from Kerch, Ukraine, to Qingdao, China, carrying a cargo of 141,000 mt of fuel oil. Pirates boarded the Vessel acting as port authority and the master was ordered to sail to Somalia. After the main engine stopped and could not be restarted, the armed men set off an explosion that engulfed engine room and accommodation. The owners tendered notice of abandonment (NOA) to the insurers declaring the vessel a constructive total loss (CTL) but the latter rejected it the same day. An agreement to sell the vessel for scrap to GMS for US$700,000 was negotiated and the owners informed the insurers that the vessel would be sold for scrap unless the insurers objected by close of business that day with full and adequate reasons. No objections were received and accordingly a memorandum of agreement (MOA) was signed by the owners.*

*Judge had to establish whether the vessel was a constructive total loss. Under section 60(2)(ii) of the Marine Insurance Act 1906, a vessel was a CTL "where she is so damaged by a peril insured against that the cost of repairing the damage would exceed the value of the ship when repaired". That provision was qualified by clause 19 of the Institute Time Clauses – Hulls, under which the damaged value of the vessel was left out of account and no claim for constructive total loss based on the cost of repair would*

*succeed unless the cost of repair would exceed the insured value. Accordingly, to succeed in establishing that the vessel was a CTL, the claimants had to prove that the cost of repairing the vessel would have exceeded the insured value of US$55 million, even though the agreed sound repaired value of the vessel was only US$10,200,000.*
*In assessing the costs of repair, the approach the court should take is to ask what a prudent uninsured shipowner in the position of the claimants would have done in deciding whether or not to repair the vessel and where and how the repair should be carried out.*

*In relation to the place of repair, whilst cost was always an important factor, it could not necessarily be determinative, given the presence of other factors, including the need for cleaning before any long tow, the costs, time and risks of a long tow, the reputation of the rival yards, the risk of delay in those yards and the difficulties of repositioning the vessel for gainful employment after repairs have been undertaken.*
*For the purpose of determining the cost of repair in assessing whether the vessel was a CTL, it was necessary to take account of additional costs which would have to be expended to put the ship right. Those costs included salvage, and also the cost of standby tugs to the extent that they were reasonably necessary to get the vessel repaired.*

*The indicative cost of repairs in China would have been US$53 million, but with the cost of salvage and standby tugs, would have been US$61 million. The notional cost of repairs in the Gulf would have been US$64.4 million, but with the cost of salvage and standby tugs, would have been US$71 million. In either case the repair costs exceeded the insured value of US$55 million. In any event it would have been appropriate to add 10 per cent by way of contingency costs representing the "large margin".*

*Had it been necessary to decide the issue, the amount recoverable for a partial loss would have been US$9,500,000. Under section 69(3) of the Marine Insurance Act 1906, where a ship was damaged and sold in an unrepaired state, the measure of indemnity was reasonable depreciation not exceeding the reasonable cost of repairs. The courts had adopted the test of applying the proportion of the vessel's actual depreciation*

*(sound less damaged market values) to the insured value, but the measure in the Institute Hull Clauses was reasonable depreciation by reference to market value. It was common ground that the damaged value of the vessel was US$700,000 and the repaired sound value of the vessel was US$10,200,000.*

*Witnesses' evidence needed to be assessed in order to evaluate the damage caused to the vessel. Directors of the involved companies and of other associated maritime firms, marine consultants and surveyors, salvors, fire experts and other independent experts were called to give evidence on their observations either onboard the vessel or on shore and contribute to the final judgment.*

*Until towards the end of the trial, the insurers were disputing whether that sale price of US$700,000 represented the real value of the vessel in a damaged, uncleaned condition. The parties exchanged expert valuation evidence from ship brokers, but in the event it was agreed between the parties, for the purposes only of calculating the partial loss indemnity, that the damaged value of the vessel was US$700,000 and the repaired sound value of the vessel was US$10,200,000.*

"Brillante Virtuoso" was held to be a Constructive Total Loss, taking into account the cost of repairs and the claimants were entitled to an indemnity on that basis as well as an indemnity for salvage and standby tug costs and agents' fees. The learned judge ruled that although the cost of repairing in Dubai would have been US $11. 4 million (or 17.5%) more expensive than repairing in China, the prudent uninsured owner would still have favoured a repair in Dubai, as although cost is an important factor, it is not determinative, particularly where the price differential between a more expensive quotation from a shipyard close to the casualty and a cheaper quotation from a shipyard at a much greater distance from the casualty is not enormous. In what concerns the other expenses of standby tugs and agency fees, the owners sought to recover those pursuant to clause 13 of the Institute War and Strikes Clauses - Hulls - Time (1983), the sue and labor clause and under section 78 of the Marine Insurance Act 1906.

Obviously, the terms agreed on the policy together with the specific circumstances under which the casualty occurred, in conjunction with the commercial practice and

custom, compose the frame which determines the assessment of the claimed amount and the final decision on it.

9.3 CASE TWO: "THE GEORGE S"

*In this cargo insurance case, the plaintiffs were the owners of a cargo of North Sea crude oil which was carried on board the defendants' vessel George S. from Teesside to Curaçao.*

*The cargo was measured in three ways. The first was effected by a meter inserted in a pipe line together with a temperature recording apparatus. These enabled a computer to calculate continuously the volume of material flowing through the pipe and its temperature and this method was used by the plaintiffs at the loading port. The second method was measurement in a shore tank by ascertaining the depth of oil in the tank and its temperature and reading off the resulting volume from a table prepared for that tank in the past. The plaintiffs used this method at the discharge port and also at the loading port to check their measurements by meter.*

*The third method was the ship's measurement. The ullage or distance between the liquid and a measuring point at or near the top of the tank was taken as was the temperature of the liquid. The volume was then calculated from tables prepared for the vessel when she was built. If the vessel was not on an even keel when the ullages were measured corrections for trim had to be made and since it was impossible to empty a vessel's tank completely allowance might have to be made for quantities on board before loading started (OBQ) and after discharge (ROB).*

*Vessel George S. completed loading and her ullages were measured on Jan. 1, 1981 at 9 a.m. The shore loading measurement was 862,838 barrels. The ship's figure for the cargo loaded was 867,470, the ship's figure for the cargo discharged was 861,062, and the shore discharging figure was 854,335 barrels. The plaintiffs claimed shortage on delivery based on the difference between the shore loading figure and the shore discharging figure.*

*The sole issue was whether the vessel delivered at the discharge port all the oil which was loaded on board her or the extent of the shortage if there was one. At first instance, having considered all the figures the Court concluded that the shore loading figure was reliable and would be accepted subject to the point that it might have included 1283 barrels of bulk sediment and water; the shore discharging measurements would also be accepted for what they purported to record, i.e. the quantity of oil received into the tanks that were measured. It was then for the plaintiffs to prove that there was a shortage on delivery; on the facts and the evidence it had not been proved that the ship's discharging figure was wrong or that there was any greater loss during the voyage than 1776 barrels which was within the margin of 0.2 per cent. allowed for evaporation on board. The plaintiffs had failed to prove any shortage of cargo and, having their claim failed, they appealed claiming they have suffered loss as a result of the short delivery of cargo.*

*Carriers are obliged to deliver the whole cargo at its destination unless excused and they are liable in damages for any failure to perform this duty, unless protected by contractual provisions. In the instant case it is common ground that the shipowners are excused to the extent that, despite the exercise of all reasonable care in and about the loading, stowing, carriage and discharge of the oil, losses will be inevitable as a result of evaporation during the voyage. The responsibility of the shipowners begins when the oil passes into the ship on loading and ends when it leaves the ship upon discharge at the port of destination. Measurements of quantities of oil at any other points are merely means of determining quantities at those crucial points.*

*For reason explored in his judgment, Mr. Justice Staughton considered that the probable accuracy of these methods was in this order, pipeline meters being the most accurate and measurement of ship's tanks the least accurate. However Mr. Justice Staughton qualified this, saying that if the question is whether a ship failed to deliver at the discharge port the whole quantity received at the loading port, theoretical likelihood of accuracy may have to give way to other considerations. For that purpose the ship's measurements may be preferable for two reasons. First, it is an advantage to measure the quantity of oil at the beginning and end of the voyage in the same container - viz. the*

*ship's tanks. Secondly, the defendants are responsible for loss only if it occurred between the time when the oil came on board the ship and the time when it left the ship. As there may be a considerable distance of pipeline between the shore tanks and the ship, both at loading and discharge ports, it is important to remember that losses which may occur between a shore tank or meter and the ship are not the shipowner's responsibility. There was a third reason advanced for preferring ship's measurements to those made on shore - that the ship's measurements are generally checked by independent inspectors.*

*This tentative preference for ship's measurements has to be read in the light of two other passages in his judgment. In the first he pointed out that a ship does not provide as stable a platform for measurement as does a shore line or shore tank. Measurement is based upon the depth of oil in the tanks, whether ascertained by dipping the oil or measuring the space above the oil (the ullage), and consulting tables prepared by the ship's builders. Results taken from these tables require adjustment to take account of the trim of the vessel. Furthermore allowance has to be made for the remains of oil, water or sediment on board the vessl before loading and the remains of oil, water or sediment on board after the completion of discharging. In the second he drew attention to the fact that, by reason of the difficulty involved in calculating the capacity of ship's tanks and of changes in their configuration during the life of the vessel, there are inherent possible inaccuracies in ship's measurements and that in fact it is not unusual for a ship's measurement to be greater or less than a shore figure which is known to be accurate. On the other hand, given a comparison between shore figures and ship's figures over a number of voyages in which there is no short delivery, it is possible to produce some correlation between the ship's figures and the more accurate shore figures. This is known in the industry as the vessel's "vessel experience factor" or "VEF" and it varies from ship to ship.*

*The difficulty throughout the case has been to understand how could such a big loss have occurred. The remaining possibilities are (i) that about 7000 barrels leaked out of the vessel during the voyage, or (ii) that such a quantity remained concealed on board the vessel after discharging, or (iii) that it was used as fuel for the vessel's engines. The*

*plaintiffs have in any case been obstructed in their investigations, since the vessel's deck and engine-room log books and other documents kept on board are said to have been lost with the vessel in April 1981. However, the three possibilities of loss mentioned above should be assessed in order for the judge to decide whether the ship's discharging figure or the shore discharging figure should be accepted.*

*Any suggestion of deliberate diversion must likewise be considered with caution, since that too would probably involve crime. There was also oral evidence of the system at the discharge port from Captain Kerklaan, who was considered an able and honest witness but who had no personal knowledge of this shipment. He too rejected the suggestion that an apparent loss could have occurred in either of those ways without being noticed.*

*"Nevertheless I conclude that such an apparent loss is, on the evidence, the least unlikely explanation. Consequently I do not find it proved, on the balance of probability, that the ship's discharging figure of 861,062 barrels was wrong, or that there was any greater loss during the voyage than 1776 barrels, which is for all practical purposes within the margin of 0.2 per cent that I would allow for evaporation on board. The chief officer's explanation of the ship's loading figure, which I would accept on his evidence alone, may in consequence be correct; it too is not proved to be wrong. I regret that after such an expensive and lengthy investigation it is not possible for me to reach any more definite conclusion than that no substantial loss is proved to have occurred on the voyage.*

*I would allow the appeal. This leaves the difficult question of assessing the amount of the loss. I accept the Judge's conclusion as to the actual quantity of oil which was loaded and the extent of inevitable loss by evaporation. The ship's figures do not assist in providing a measurement of the actual quantity of oil discharged for the reasons which have already been discussed. Nor do they provide a reliable measure of the short delivery on the basis of comparing them with the ship's figure for the loaded quantity which is highly suspect. I therefore conclude that the appellants have established a loss*

*on the basis of a comparison between shore figures. This seems to me to be 6783 barrels but I should be happy to hear further argument if I have omitted some factor"*

The importance of the documents and of the humans involved in the claims procedure is reflected in this case. What is stated in the documents, what is being confessed by the witnesses and what methods and practice is followed can affect the amount of the claim as they consist the evidence on which judgments are based. The Judge, and the experience he needs to have in marine insurance issues, plays a determinant role in the development of the claim. The better knowledge he has the more accurate method he will choose among several alternatives in order to measure the alleged loss or damage and consequently the more reliable the amount awarded will be.

## 9.4 CONCLUSIONS

The complexity of marine insurance claim is undoubtable. Deep knowledge of the maritime affairs is essential in understanding and successfully handling marine insurance cases.

No matter the subject matter insured, claims' issuance needs different perspectives to be taken into account. Statutory and case law as well as practice and custom can define the framework into which claims will develop. Tankers and bulk carriers are involved in different markets and because of their different characteristics they follow dissimilar tendencies in claims market.

Depending on the type of policy that is signed in every particular case, the cover is designated and different methods are used to measure the indemnity. Valued policies are considered more popular, as they include a precise insurable value and they secure that the claim is less ambiguous.

Casualties cannot always be foreseen. Unpredictability of marine adventure is what resulted in the establishment of marine insurance as the means for ship and cargo owners t protect their properties from perils of the sea.

Commercial practice, oil prices, demand and supply equilibrium affect directly or indirectly prices in the S& P market and value of commodities. Furthermore, in case of damages, place of repairs, cost of spare parts, documents issued on board and on shore as well as the applicable law and jurisdiction, are all critical for the successful development of claims.

It is important that policies are clearly compiled and that all favorable terms are incorporated. The extent of the cover is dependent on the terms agreed between the interested parties and therefore it is of great significance to consider them carefully before signing. Special clauses should not be neglected as they can offer additional cover that would not otherwise be provided.

The choice of law as well as that of jurisdiction in case a dispute is not amicably settled is also of prime importance as it has been noticed that different places of resolution may lead to different decisions on similar cases. Experience of the learned Judge is fundamental for the reasonable assessment of the evidential elements and the right ruling in favor of the party that is entitled to the claim.

Continuous updating and following of the trends in chartering, S&P, law, conventions, judgments on "key" cases, commercial practice and many more are vital in order for the plaintiffs to submit substantial claims and the defendants to counterclaim successfully.

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